**SESSION 3 – EFFECTIVE QUESTIONING AS PART OF TEACHING FOR DEEP LEARNING**

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| Pre Task For Prior Learning | None |
| Share impact of teacher actions from previous session. | 10  |
| Reflective Questions | Why do we ask questions? How often do the questions you ask cause productive thinking / new learning?What is the balance in your class of ‘Managerial’, ‘Knowledge and Understanding’ and ‘Encouraging Pupils to Talk’ questions? |
| Learning Intentions | We are extending our questioning strategies to develop teaching for understanding. | 5 |
| Success Criteria | I can * appreciate why good questioning is important
* ask pupils questions to scaffold and deepen understanding
* use questions to provoke deeper thinking
* understand why strategies such as ‘no hands up’ can engage more pupils in their learning
* understand how wait times impact on understanding and apply them in my classroom
 |
| Session Content | **Group task:****Odd One Out** Participants look at the images and come up with as many responses to the question ‘which is the odd one out and why?’ as they can. Take it in turns to say why this is the odd one out. Repeat this for all 4 sets of images. **Individual then Group task:**Read facts on questioning and consider how these facts impact on productive thinking and promoting understanding. Discuss in your group and prepare a brief feedback statement sharing your ideas.( 3 bullet points per group?)**Group task:**Use the question activity cards to explore new ways of framing questions – read and re-version the examples using hand outs 1-4. **Pair task:**Watch video clip 3.1 – QuestioningCreate effective questions for a lesson they will teach the next day / as soon as possible.**Extension activity:**Read ‘Reflective Teaching’ Pollard A et al P285, 289  | 5101015 |
| Teacher Action Plan | 5 |
| Teacher Actions | Trial devised questions, be aware of balance of question types used during lessons (managerial / knowledge and understanding / pupil talk).  |  |

 **Odd One Out Task Materials**









**SESSION 3 -** **QUESTIONING FACT CARD 1**

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| ‘After a student has spoken, the teacher may feel that the appropriate thing to occur is for him or her to say something, and this something is more times than not a question. Immediately there then ensues a question-answer-question series, and the question-answer relationship is off and running, leaving discussion in its traces. For example, 85% of observed exchanges the teacher put a further question after the student had responded; at any point, the chances were greater than two to one that the teacher would ask a question’(Mishler cited in J.T.Dillon) |

**SESSION 3 -** **QUESTIONING FACT CARD 2**

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| ‘Teachers already know most of the answers to questions they ask in the classroom. These are known in the trade as ‘guess what i am thinking’ questions. We ask these kind of questions to check pupils ‘knowledge and understanding and to diagnose difficulties. They are legitimate questions to ask, of course, but there is a lot of research to show thet most teachers-even the most experienced among us – ask too many’ (Ian Smith, 2007)  |

**SESSION 3 -** **QUESTIONING FACT CARD 3**

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| ‘Some students are trying to answer every single question teacher asks. They’re thinking all time, and those students are getting smarter and smarter and smarter. There are other students who are trying to avoid being called on. Guy Claxon called them ‘radiator children’ – the children who snuggle up to the radiator and become almost invisible in the classroom. Teachers rarely ever call on them, and so those students are forgoing the opportunity to get smarter. If you are allowing students to choose whether to participate in your classroom, you are exacerbating the achievement gap. So because environment creates intelligence and intelligence creates environment, what we have to do is to create classrooms which are inclusive, where the cognitive demand is high, and where participation is obligatory. So if you’re not requiring every single pupil to engage in the questioning you’re doing or in the discussion you’re leading, you are actually making things worse. That’s why I don’t think you have an option. If you’re serious about raising achievement, if you’re serious about getting rid of achievement gaps, between for example working class students and middle class students, then you have to create classrooms where participation is compulsory’ **Dylan William CANC 2006**  |

**SESSION 3 - QUESTIONING RE-VERSIONING ACTIVITY HAND OUT 1**

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| **Don’t ask the question, give the answer and ask why it’s correct****Example-**Don’t ask - What shape is this?Ask – How do you know this is a triangle? |
| **Reversion the following questions in the same way:** |
| Is 24 an even number? |
|  |
| What kind of music do One Direction make? |
|  |
| Is this an adjective? |
|  |

**SESSION 3 - QUESTIONING RE-VERSIONING ACTIVITY HAND OUT 2**

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| **Questions that explore opposites, differences, categories and exceptions****Example**Original- What makes a good opening to a story?Revised- Which of these two openings would make you want to read on and why?  |
| **Reversion the following questions in the same way:** |
| What is photosynthesis? |
|  |
| Which aspect of fitness is most important in a 100m sprint? |
|  |
| Can you describe the political system in Britain? |
|  |

**SESSION 3 - QUESTIONING RE-VERSIONING ACTIVITY HAND OUT 3**

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| **Making Closed questions more Open****Example**Original- What is 8 plus 4?More Open – What questions could 12 be the answer to?  |
| **Reversion the following questions in the same way:** |
| Is water a liquid? |
|  |
| What kind of animal is this? |
|  |
| What genre is this story? |
|  |

**SESSION 3 - QUESTIONING RE-VERSIONING ACTIVITY HAND OUT 4**

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| **Turning the Question into a True or False Statement****Example**Original – Is it wrong to be a bully?Statement - A bully is often an unhappy person, discuss. |
| **Reversion the following questions in the same way:** |
| Why do we need to go to school? |
|  |
| Which breakfast cereal is healthiest? |
|  |
| Which is the most important element on earth? |
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**SESSION 3 – EFFECTIVE QUESTION PRO FORMA**

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| --- | --- |
| LIST EFFECTIVE QUESTIONS FOR A LESSON YOU WILL TEACH VERY SOON | HOW WILL THIS QUESTION IMPROVE PUPIL UNDERSTANDING? |
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**SESSION 3 – EXTENSION READING** from “Reflective Teaching” by Andrew Pollard, p 285 – 289

Pollard, A,.et al (2008) *Reflective Teaching:* London: Continuum International Publishing Group Ltd

**Analysing ‘question and answer’ sessions**

Questions can be used for a wide range of purposes and they can be seen as a vital tool for teaching and learning. It is a powerful way of ‘scaffolding’ children’s understanding and raising their performance (see Tharp and Gallimore, 1998, Reading 13.2). The way in which teachers can use questions to improve the quality of children’s thinking and the extent of their participation is discussed in Perrot (1982, Reading 135). Asking questions can provide teachers with immediate feedback on how participants are thinking and on what they know and it accounts for a high proportion of teacher talk. Question and answer techniques are therefore seen as an essential means of helping us to understand learning processes. Listening to the ‘answers’, and not pre-judging them, is an important way of learning about a learner.

Particular aspects concerning questions which might be reviewed are:

* The purpose, or function, of questions
* The form in which questions are asked
* The ways in which responses are handled

Each of these aspects is now considered in further detail.

***The purpose, or function, of questions***

 Questions can be grouped in many different ways. However, two main categories commonly occur. The first is psycho-social questions: those which centre on relationships between pupils or between a teacher and the pupils. The second category is ‘pedagogic’ questions: those which relate to more specifically educational concerns, and to the teaching and learning of skills, attitudes, concepts and knowledge.

In addition, questions are frequently designated ‘open’ or ‘closed’. A closed question has a specific answer; an open question can be answered in a variety of ways. Advice to teachers sometimes appears to suggest that it is always better to ask open rather than closed questions. For instance, we might distinguish between ‘do you know?’ questions, and more inclusive ‘do you think?’ questions. However, rather than adopt an inflexible prescription, it is more useful to be clear about why questions are being asked, as well as how we think we are using them to develop thinking and support learning. There are situations where closing down the questioning is a very useful strategy, perhaps for instance during recapping work or within an interactive sequence if it becomes necessary to re-establish focus or assert control.

As Perrot suggests (1982, Reading 13.5), it may be more profitable to think of questions in terms of the level of demand on pupils thinking. Lower order questions do not require pupils to go beyond recall of information previously taught or already known. Answers are ‘right’ or ‘wrong’. Higher order questions require pupils to apply, reorganize, extend, evaluate, analyse information in some way. In this context it is important to consider the level of thinking indicated by a pupil’s answer. A ‘lower-order’ question may produce a ‘higher’ order answer and vice versa.

Checklist 13.2 offers a framework for considering different kinds of questions in relation to purposes.

***Checklist 13.2***

*Aim: T*o provide a framework for analysing classroom questions. See how many uses of classroom questions you can spot in your school.

Purposes of psycho-social questions:

* to encourage shy members to integrate by participating (e.g. ‘Jan, you’ve got a little kitten too, haven’t you?)
* to show interest in and value for group members (e.g. ‘you had a good idea, Norita. Will you tell us?’
* to develop respect for each other’s views (e.g ‘what do you think you would have done?’)
* to assert control (e.g. ‘Wayne, what are you up to’)
* to implement routines and procedures (e.g ‘Ahmed , what did i tell you to do next?’)

Purposes of pedagogical questions:

1. Closed questions (low level cognitive demand):
* To recall information – for testing, consideration or feedback (e.g. ‘Where is Ethiopia?’)
* To give an on-the-spot solution (application of known rule to new variables) (e.g. What is 28 divided by 4?’)
* To encourage analysis – by describing, comparing or classifying (e.g. ‘What the difference between ..?’)
1. Open questions (high-level cognitive demand):
* To explore information and ideas with no set ‘answer’ (reasoning/interpreting, hypothesizing/speculating, and imagining/inventing) (e.g. ‘How do you think the hero would feel if...?’)
* To encourage synthesis of information and ideas by focusing on contradictions, discrepancies, different sources of evidence (e.g. ‘Would it be fair if...?)
* To encourage the transfer of ideas and application of knowledge (e.g. ‘How is what we’ve found out useful..?’)

Form of a question can have very diverse effects. For example, a teacher wants to encourage an evaluative response to personal reading and asks a ‘higher order’, ‘open’ question.

 Q. ‘Did you like the book?’

 A. ‘Yes/No’.

How could you reformulate this question to avoid this kind of monosyllabic answer?

In a testing situation what kind of information about what a pupil knows are we getting from this question and answer?

 Q. ‘Has potato got starch in it’

 A. ‘Yes/No’.

Another form is the ‘direct’ question, which is short and simple in construction and has a single specified focus. For instance,

 Q. ‘How did the Vikings make their boats?’

To which the answer may also be lengthy but consisting of opinions and ideas which may be complex to articulate.

Very different effects might result from using a ‘direct’ question compared to one which invites a monosyllabic response. A reflective teacher would need to consider whether such a form would be appropriate if the aim was to encourage exploration, evaluation or to focus contributions on a particular suggestion.

A third form of question is the ‘indirect’ question. This is a long, composite question which may include a number of different leads. Again, such a question can be very useful in some situations but inappropriate in others. For example, ‘indirect’ questions can offer a number of different suggestions which might help in opening out a discussion and in providing a range of possible leads to explore. It would be less suitable in a testing situation, as the focus of the question would be relatively unclear. It could also be confusing to a pupil who found it hard to take everything in and who therefore got lost.

This highlights the need to formulate questions matched to pupil’s learning needs. This requires reflective teachers to think about appropriate language and about the sequencing of questions to promote thinking which will lead to the development of understanding or the acquisition of knowledge (Tharp and Gallimore, 1998, Reading 13.2). These questions need to pick up on the child’s interests, conceptions and misconceptions. Analysis of lessons observed by Brown and Edmundson (1984) provides a very useful diagrammatic representation of some typical sequences (Figure 13.1).

In effective questioning sequences, teachers hold in mind the key questions for the learning they have planned. Around these they ask related questions which they formulate based on their professional judgement of pupil’s needs, prior knowledge and understanding. It is possible to plan these sequences (four or five questions) but as important is the questioning that arises from careful listening to pupil’s responses. Where the teacher is too concerned to lead pupils towards a predetermined answer it is easy to miss hearing important clues to how understanding (or misunderstanding) is developing.

Figure 13.1 Some sequences of questions

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| **Type** |  | **Description** |
| Extending |  | A string of questions of the same type and on the same topic  |
| Extending and lifting |  | Initial questions request examples and instances of the same type followed by a leap to a different type of question. A common sequence is likely to be recall, simple deductions and descriptions leading to reasons, hypotheses  |
| Funnelling |  | Begins with open question and proceeds to narrow down to simple deductions or recall or to reasons and problem-solving |
| Sowing and reaping |  | Problem posed, open questions asked followed by more specific questions and restatement of initial problem |
| Step-by-step upStep-by-step down |  | A sequence of questions moving systematically from recall to problem-solving, evaluation or open-ended Begins with evaluation questions and moves systematically through problem-solving towards direct recall   |
| Nose-dive |  | Begins with evaluation of problem-solving and then moves straight to simple recall  |
| Random walk |  | No discernable pattern in terms of types of questions or content of questions |

***The ways in which responses are handled***

The third aspect of questioning, that of the ways in which responses are handled, is important to consider because it is the means by which feedback is offered to the pupils. Often a teacher’s immediate and instinctive response is to evaluate, repeat or restate an answer.