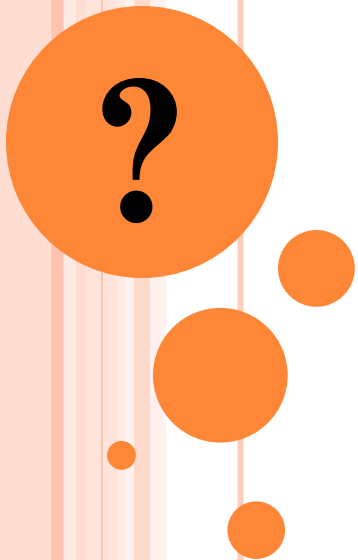


TRIO

Expertise - Higher order questioning

Does engaging with higher order
questioning skills enhance
and develop expertise?



ACTIVITY

- Who is the cleverest out of the following people?
- Why?

- J.K. Rowling
- David Cameron
- David Beckham
- Albert Einstein
- Miley Cyrus



INITIAL RESEARCH – PRIOR KNOWLEDGE

Questionnaire results

Sample answers

Q1: Excels, talented, knowledgeable...

Q2: Title, know everything about their subject, really clever at very hard things

Q3: My dad! Albert Einstein, Andy Murray, the Greeks...

Q4: Very good at job, won lots of medals, he knows everything...

Q5: Sports, science, goats, floristry...

Q6: Normally amazing at one thing, not usually...

1) What is an expert?

2) How do you know if someone is an expert?

3) Do you know anyone who is an expert?

4) If so, who? How do you know they are an expert?

5) What are they an expert in?

6) Are experts good at everything?

7) Was an expert always an expert?

8) Does an expert have to work hard?

9) Does an expert enjoy what they are an expert in?

10) Circle three of the following words that you think describe an expert:

- Talent
- Perseverance
- Commitment
- Belief
- Influence
- Positivity

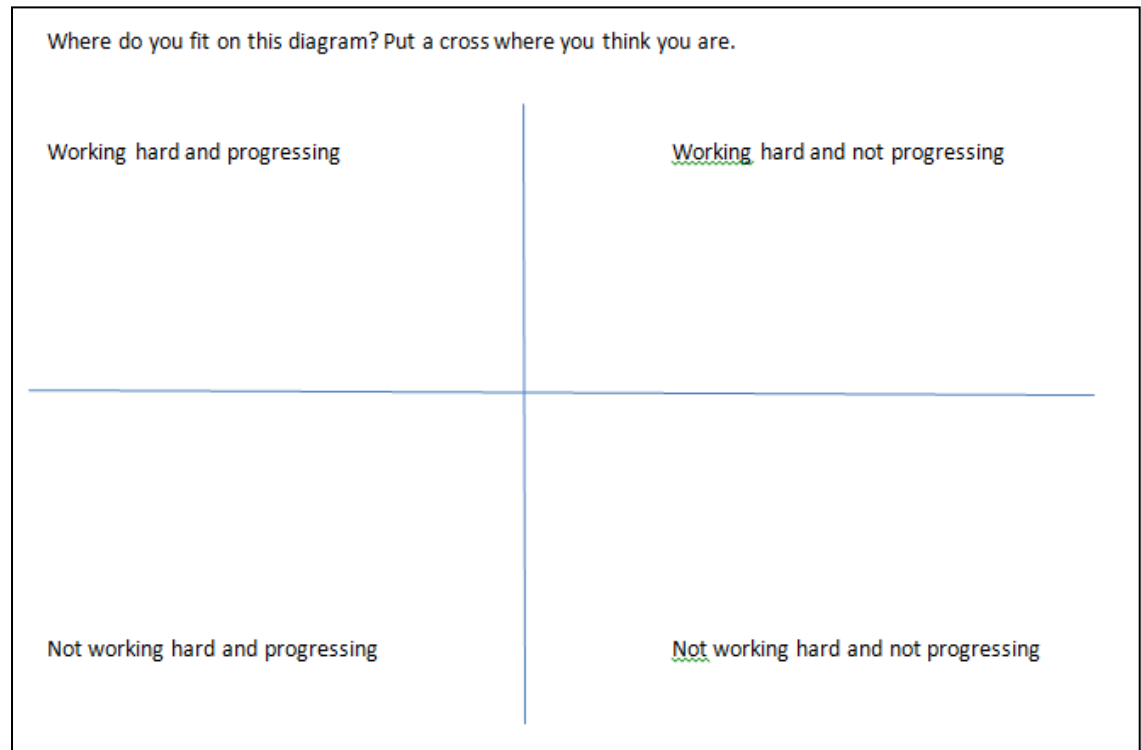
11) How does external input develop expertise?

LEARNING ATTITUDES

Do experts have to work hard to become experts? Where do the children place themselves on this grid?

As 'experts' on the children's learning – Did the children's teachers agree with their self assessment?

Out of 58 the teachers agreed with 37 of the children's assessments.
Disagreed with 16.
(plus 5 N/A)



PURPOSE

- Our intention was to improve children's questioning skills therefore increasing their ability to develop their own expertise.
- We agreed that experts become experts because they ask difficult questions and seek out the answers.
- but
- How can this be measured?



Increasing difficulty

Bloom's Taxonomy	Alexander
Remember	Rote/Recitation – The children are able to recall and remember facts they have learnt through recitation and rote methods taught by their teacher.
Understand	Recitation/Instructions & Exposition – Understanding rhythms and patterns within recitation (i.e. Times tables, nursery rhymes). Verbal explanations given by the teacher to increase understanding.
Apply	Instructions & Exposition/Discussion – Children can apply the instructions given by their teacher. The children can also apply knowledge gained from others to solve problems.
Analyse	Discussion – The children are able to share ideas and information through discussion with peers or staff to analyse work or approaches to solving problems.
Evaluate	Dialogue – Engaging in dialogue allows children to evaluate the opinions and observations made by other children and their teacher.
Create	Dialogue – The children explore/create using language and its structure to construct knowledge.

Bloom's Taxonomy

Sample Questions



Remember

Useful Verbs	Sample Question Stems
List	• What happened after...?
Locate	• How many...?
Name	• Who was it that...?
Recognize	• Can you name the...?
State	• Describe what happened at...?
Describe	• Who spoke to...?
Recall	• Can you tell why...?
Repeat	• Find the meaning of...?
Retrieve	• What is...?
	• Which is true or false...?





Understanding

Useful Verbs	Sample Question Stems
Conclude Define in your own words Illustrate Predict Tell Identify paraphrase Summarize Categorize Classify Discuss Match Sort Compare Contrast Explain	<ul style="list-style-type: none">• Can you write in your own words...?• Can you write a brief outline...?• What do you think could of happened next...?• Who do you think...?• What was the main idea...?• Who was the key character...?• Can you distinguish between...?• What differences exist between...?• Can you provide an example of what you mean...?• Can you provide a definition for...?





Applying

Useful Verbs	Sample Question Stems
Generalize Infer Show Use	<ul style="list-style-type: none">• Do you know another instance where...?• Could this have happened in...?• Can you group by characteristics such as...?• What factors would you change if...?• Can you apply the method used to some experience of your own...?• What questions would you ask of...?• From the information given, can you develop a set of instructions about...?• Would this information be useful if you had a ...?





Analyzing

Useful Verbs	Sample Question Stems
Distinguish Select Arrange Organize Outline	<ul style="list-style-type: none">• Which events could have happened...?• If ... happened, what might the ending have been?• How was this similar to...?• What was the underlying theme of...?• What do you see as other possible outcomes?• Why did ... changes occur?• Can you compare your ... with that presented in...?• Can you explain what must have happened when...?• How is ... similar to...?• What are some of the problems of...?• Can you distinguish between...?• What were some of the motives behind...?• What was the turning point in the game?• What was the problem with...?





Evaluating

Useful Verbs	Sample Question Stems
Assess Justify Critique Judge	<ul style="list-style-type: none">• Is there a better solution to...?• Judge the value of...• Can you defend your position about...?• Do you think ... is a good or a bad thing?• How would you have handled...?• What changes to ... would you recommend?• Do you believe...?• Are you a ... person?• How would you feel if...?• How effective are...?• What do you think about...?





Creating

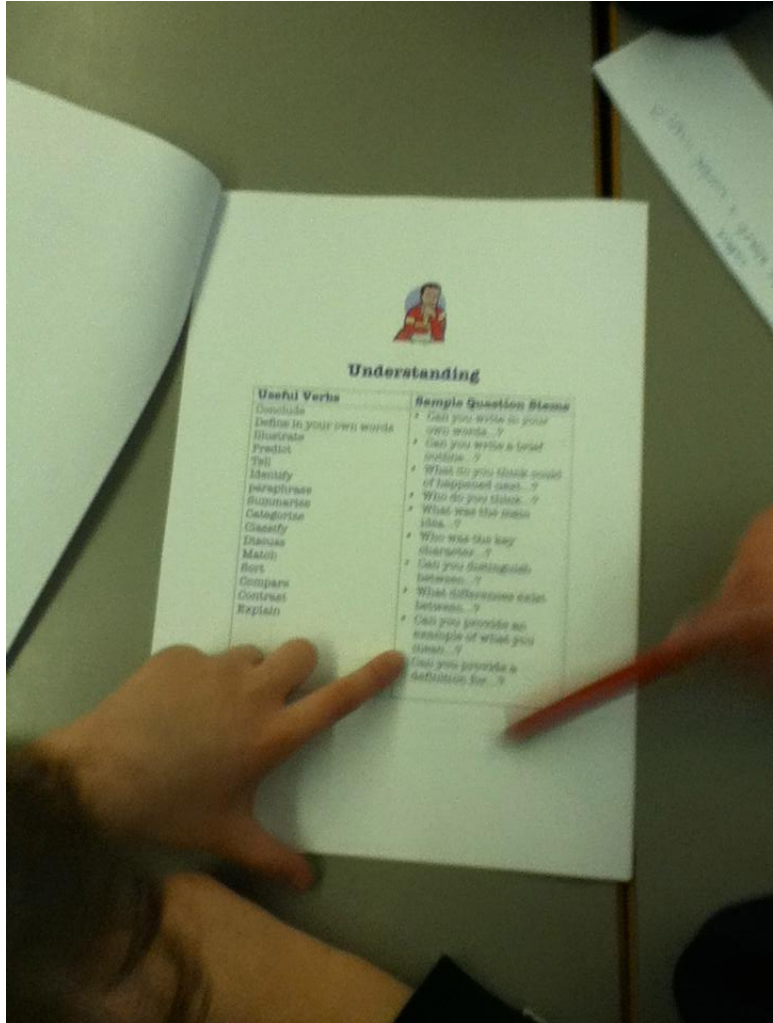
Useful Verbs	Sample Question Stems
Design Compose Plan Hypothesize Revise	<ul style="list-style-type: none">• Can you design a ... to ...?• Why not compose a song about...?• Can you see a possible solution to...?• If you had access to all resources how would you deal with...?• Why don't you devise your own way to deal with...?• What would happen if...?• How many ways can you...?• Can you create new and unusual uses for...?• Can you write a new recipe for a tasty dish?




LESSON ONE – MARK GUNDRY – Y5/6

- Historical enquiry
- Children prepared questions to ask a historical character (Adolf Hitler) ready for a visit from him the following day.
- The children ask him the questions and then place them on the level of Bloom's Taxonomy they feel is most accurate.
- The children now try to create new questions to ask Adolf assisted by ideas from a higher level on Bloom's Taxonomy.





LESSON ONE – CONTINUED...

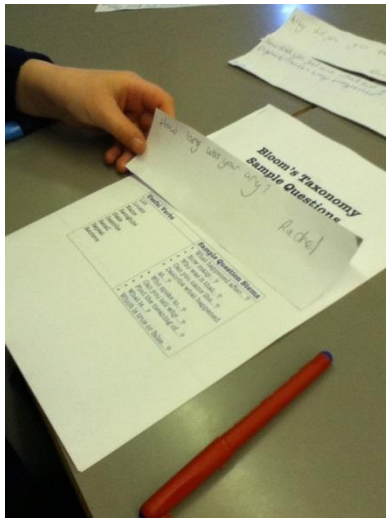


Blooms level	Before	After
Remembering	15	2
Understanding	4	1
Applying	1	0
Analysing	14	1
Evaluating	4	13
Creating	1	17

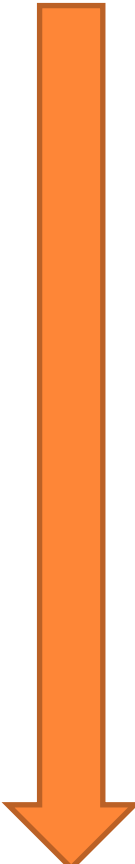


LESSON TWO – CHLOE RICHARDS – Y5/6

- Historical enquiry
- The children asked questions about different aspects of the ancient Egyptians.
- The children used higher order thinking to come up with possible answers to their questions.



LESSON TWO – CONTINUED...

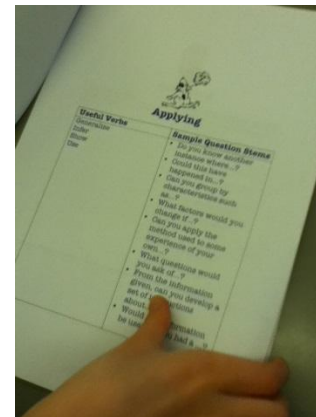


Blooms level	Before	After
Remembering	7	2
Understanding	10	3
Applying	0	0
Analysing	7	7
Evaluating	0	1
Creating	0	2

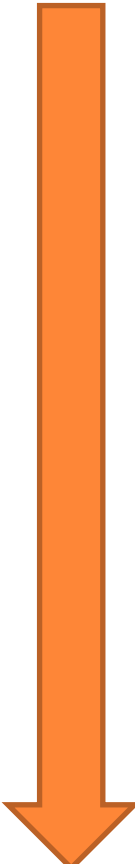


LESSON THREE – ANNA MORGAN – Y3/4

- Children prepared questions to put into a letter for David Cameron.
- Placed them on Bloom's Taxonomy
- Watched a brief video clip of the Prime Minister being questioned
- Used the Bloom's Taxonomy to create new questions relating to their lives to place in their letters



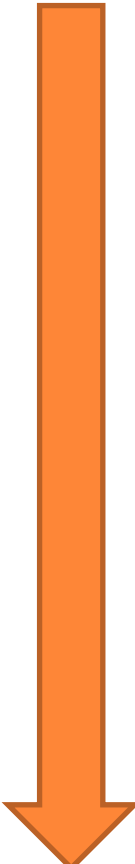
LESSON THREE - CONTINUED...



Blooms level	Before	After
Remembering	15	2
Understanding	9	4
Applying	2	2
Analysing	6	10
Evaluating	1	11
Creating	0	0



OVERALL FINDINGS



Blooms level	Before	After
Remembering	37	6
Understanding	23	8
Applying	3	2
Analysing	27	18
Evaluating	5	24
Creating	1	19



CONCLUSIONS

- Challenging children to engage with higher order questioning, will improve their expertise as they collect more in depth answers.
- Teachers role in answering questions is vital i.e. a child's question might seem silly or not related to the topic, yet it may still demonstrate higher order thinking. Therefore our reactions are key. For example during session one a child asked –
What was Hitler's brother called?
To which the teacher giggled and said
“Um, I don't know...Mr Hitler?”



CONCLUSIONS

- Expertise and higher order questioning develops through age and maturity with a wider range of higher order questions being asked by the Y5/6 children in comparison with the Y3/4 groups. For example Y5/6 were able to synthesise questions within the creative level of Bloom's Taxonomy.
- By teaching lessons based purely on questioning skills, we have embedded good questioning skills within the children, which has been evident in lessons since the trio project began.



BENEFITS OF TRIO WORK FOR THE TEACHERS

- Become more aware of the type of questioning we use in the class, by not answering a question directly but encouraging further/deeper thinking around the question we can encourage higher order thinking.
- Able to 'magpie' display ideas and practices from one another's classrooms.
- Confidence within our teaching has improved as a result of discussions and reflective conversations we have had.
- Knowing that there will be a follow up in the form of a presentation has made us push ourselves regarding using different types of questions.

