

PROCAT

PROSPECTS COLLEGE OF
ADVANCED TECHNOLOGY

CASE STUDY



Using QR codes to improve questioning techniques

Sector area:
Construction



Commissioned and funded by

The
Education
& Training
Foundation



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1: CONTACT DETAILS

Names: Danny Guyon and Keeley Clements

Roles: Course Leader of Foundation Learning and Functional Skills Tutor

Industry/sector area: Construction

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2: WHAT DID YOU SET OUT TO DEVELOP AND WHY?

Learning walks across the vocational curriculum had identified that we needed to improve the questioning techniques of teaching instructors. Keeley and I were given the challenge of creating a practical tool that would support tutors to understand what they need to do to move learners beyond straightforward recall to encourage more collaborative and 'active' thinking that underpins the higher level skills of application and analysis.

3: THE PROCESS - WHAT DID YOU ACTUALLY DO?

We sat down and jointly pulled together ideas and approaches that we use in our own practice. We wanted to present strategies and frameworks that could act as useful 'aide-memoires' for staff, together with links to additional continuing professional development (CPD) resources that tutors could pick and choose from. Our challenge was to produce something that was succinct, accessible and enticing enough for tutors to engage with.

Both of us successfully use QR codes in the classroom. For example Keeley asks students to use their phones to pick up a QR code at the end of a functional skills lesson so that they can access the homework they need to complete. I use QR codes to complement and extend learning by providing links out to, for example, roofing in practice. This gave us the basis of our idea. We decided that we would produce a laminated placemat that would be positioned on every tutor's desk throughout the college and that would enable tutors to access key supporting information via QR codes.



On one side of the placemat we captured a range of key tips and strategies to support the use of effective questioning which includes Bloom's Taxonomy, strategies for extending student responses and guidance on how to move about the classroom.

Side one of the 'How to improve questioning techniques' placemat

WHO?

VISUAL SEE IT

AUDITORY HEAR IT

KINESTHETIC DO IT

What type of learner are YOU?

Rudyard Kipling Powerful set of questions

I keep six honest serving men (They taught me all I know); Their names are What and Why and When And How and Where and Who.

Are you making sure you challenge your learners every day? Question your learners with 6 new words every session using Bloom's Taxonomy table below... what words can you use today?

Level 1/2		Level 2/3		Level 3	
All learners				Most learners	
Knowledge	Comprehension	Application	Analysis		
Recall/recognize facts without understanding. Exhibits previously learned material by recalling facts, terms, basic concepts and answers.	To show understanding finding information from the text. Demonstrating basic understanding of facts and ideas.	To use in a new situation. Solving problems by applying acquired knowledge, facts, techniques and rules in a different way.	To examine in detail. Examining and breaking information into parts by identifying motives or causes; making inferences and finding evidence to support generalizations.		
Key words: Choose Observe Show Ask Extend Predict Administer Experiment Relate Appraise Find Question Explain Classify Identify	Key words: Compare Illustrate Analyze Associate Identify Select Assumption Function Research Find Recall Trace Contrast Indicate Reptate Calculate Interpret Simulate Categorize highlight slips	Key words: Apply Group Represent Arrange Focus Rank	Key words: Justify Summarize Summarize effect discussion Research See		
Classify Observe Show Ask Extend Predict Administer Experiment Relate Appraise Find Question Explain Classify Identify	Compare Illustrate Analyze Associate Identify Select Assumption Function Research Find Recall Trace Contrast Indicate Reptate Calculate Interpret Simulate Categorize highlight slips	Apply Group Represent Arrange Focus Rank	Justify Summarize Summarize effect discussion Research See		

WHERE?

"Shifting the Spotlight"

If you tend to question the same learners, try moving about the classroom. Teachers seem to ask those pupils seated in a sort of "shifting spotlight" in front of them. By moving to different areas of the room you are likely to ask a wider range of learners OR change the layout of the classroom desks!

HOW?

- Public Read Questions: **Yes/No** (yes/no), **or not** (is/are)
- Echo Questions: Repeat what they say as a question
- Funnel Questioning: Seeking more details or more general information
- Grouping Questioning: Asking many people at once
- Kipling Questions: **Who, What, Why, When, How**
- Leading Questions: That may or may not be a good thing for you
- Probing Questions: Specific questions for finding more details
- Provocative Questions: Wind them up with a secondary question
- Rhetorical Question: Question without a point
- Socratic Questioning: Socratic method of questioning in order to elicit learning
- Tag Questions: Some questions encourage agreement, don't they?

WHY?

"Thinking without questioning is like drinking without swallowing"

Strategies for extending pupils' responses

- Pausing (giving thinking time) - before and after asking, and after response, encourages pupils to extend their answers. Not only do more pupils answer they also add greater detail.
- Suggesting pupils have half a minute to share their answer with a partner before feeding back. This also promotes confidence as it is a 'joint effort'.
- "You are not allowed to answer this question in less than 15 words".
- Use body language - e.g. eyes fixed, waiting, or hand extended, upturned to signal expectations that there may be more to be said...

WHEN?

When are YOU going to use these?



On the second side we pulled together a range of additional resources that support tutors to delve deeper into understanding, for example the impact of classroom layout and classroom management on questioning as well as how technology could be used to develop questions that extend and challenge thinking.

Side two of the 'How to improve questioning techniques' placemat

Websites and Good Practice Examples

Technology	VARK	Questioning Techniques	Extending Questioning
 <p>https://www.youtube.com/watch?v=xdoUdFwHFWM 1 minute 23 seconds</p>	 <p>https://www.youtube.com/watch?v=9l9F1aywdrE 4 minutes 14 seconds</p>	 <p>https://www.youtube.com/watch?v=CPUu3oChSU 3 minutes 11 seconds</p>	 <p>https://www.youtube.com/watch?v=029F5eQaGJo 2 minutes 38 seconds</p>
<p>https://www.youtube.com/watch?v=qCG1MuWFDs 3 minutes 37 seconds</p> 	<p>https://www.youtube.com/watch?v=0NxCp0r0ofo 4 minutes 26 seconds</p> 	<p>http://www.changingminds.org/techniques/questioning/questioning.htm Questioning Techniques</p> 	<p>http://www.fromgoodtoboutstanding.com/2012/05/ofsted-2012-questioning-to-promote-learning Ofsted - Questioning to promote learning</p> 
Bloom's Taxonomy	Classroom Layouts	Questioning Styles	Classroom Management
 <p>https://www.youtube.com/watch?v=ab7Wvg0z3 3 minutes 44 seconds</p>	 <p>https://www.youtube.com/watch?v=rcTUPvayjQ 6 minutes 55 seconds</p>	 <p>https://www.youtube.com/watch?v=QaKETdVNU98 2 minutes 39 seconds</p>	 <p>https://www.youtube.com/watch?v=u986r75Bso 10 minutes 34 seconds</p>
<p>https://www.youtube.com/watch?v=QlZhid-STBo 5 minutes</p> 	<p>http://blog.ampli.com/2014/05/classroom-layouts-seating-arrangements-for-effective-learning.html Classroom Layouts: Seating Arrangements for Effective Learning</p> 	<p>https://www.youtube.com/watch?v=3d00d0_wmE 5 minutes 36 seconds</p> 	<p>https://www.youtube.com/watch?v=km7X5kQVdE8 11 minutes 21 seconds</p> 

Do you use any videos? If so, please send the links to danny.guyon@procat.ac.uk and I'll create the QR codes and arrange to share them.

Effective questioning techniques plus the placemats were then explored as part of a staff CPD training session in the autumn term 2015.



4: WHAT DIFFERENCE HAS THIS MADE?

The placemats have been printed and placed on all tutor desks across the college. Staff are encouraged to send any additional videos or good practice examples to me so that I can arrange to complement the placemats with additional resources that can be added to the new college-wide virtual learning environment (VLE) that is being developed.

Our aim is to encourage tutors to use this technology as part of their teaching toolkit, we have had positive feedback from staff about different QR codes they have used to help with various difficulties in their own delivery, from classroom management to effective questioning. It is our aim that staff will continue to use this resource sending me their own ideas and suggesting new links to websites and videos which will help all staff to continue to develop their professional practice.

An additional unexpected outcome of the process is that Keely and I now understand much more about each other's curriculum areas. I am mindful of the importance of functional skills and my role as a course leader to make sure that my team not only embeds effective questioning into their practice but that they also reinforce and develop English and maths skills.

5: LESSONS LEARNT

It is important to define the precise focus of any practitioner-led project and agree as a team what it is that will be produced. This enables you to set realistic targets and timescales for delivery which help you to distinguish between what is essential and what is desirable but which might not be addressed this time round.

Keely and I work on the same campus so we could snatch short bursts of time to get on with the project around our teaching commitments. However, we both underestimated how long the production of the placemat would take. Ideas need to be planned, drafted, tested and then modified which took us approximately 6 weeks.



We had the belief that tutors would come to us with additional resources and ideas – in reality the demands of the day-to-day job take over. What we intend to do now is add ‘effective questioning’ to the next round of team and faculty meetings to gather examples of effective practice that we can collate and share.

6: RESOURCES PRODUCED



‘How to improve questioning techniques’ placemat
