Welcome to issue four of Sharing Excellence.

Following on from the discussion of starting and ending sessions in the last issue, here are some games you might try to 'kick start' your lessons.

**Use mental starters or energisers**

What are mental starters?

At the beginning of the lesson (either before or after the introduction) a class can be really energised by a brief recap activity known as a mental starter. These can take many forms, but have several key features:

- They are fun!
- They reinforce previous learning
- They are active and get everyone involved
- They last 5 to 10 minutes
- They get the synapses firing by prompting learners to be creative
- They prompt learners to explain ideas and challenge the ideas of others
- They enable learners to perform at a level appropriate to them – differentiation is in-built

Some mental starters are better suited to some topics and specialisms more than others, but here is a selection of ideas that you can adapt. Try inventing some of your own.

**Odd one out**

Put four words, calculations, diagrams or phrases on the board and ask learners to pick the odd one out. The key is that learners have to explain the reasoning behind their choice and occasionally have that thinking challenged by others with an alternative answer. Repeat with two or three sets. A well-designed set should have alternative valid answers based on different lines of reasoning. It is differentiated because some lines are 'easier' to spot than others. Some learners will spot one reason, some two, three or more.

Here is an example from mathematics designed to recap the concept of factors. Understanding this specific example matters less than the idea of providing alternative valid answers. Directed questioning can always be used to tease out ideas as to why options unselected by the class could also be the odd one out.

Here are four numbers you could put on the board:

25, 3, 6, 105

Anyone of the four could justifiably be chosen as the odd one out.

- 25 is the only square number (5x5 or five squared = 25)
- Also the only one without 3 as a factor
- 3 is the only prime number (divides or factorises only by 1 and itself)
- 6 is the only even number (divides by 2 or has 2 as a factor)
- 105 is the only number that has three prime numbers as factors - 3, 5 & 7
Just a minute

This will be familiar to Radio 4 listeners. One person has to speak on a set topic for a minute without hesitation, repetition or deviation. Anyone else can challenge if they believe the speaker has hesitated, repeated themselves, drifted off the point or made a false statement. You will have to be more generous on the hesitation rule than the host on Radio 4 as students find this hard. The first time you play you will normally need to start yourself as a demonstration.

A successful challenge earns a point and the challenger takes over the talk with the remaining seconds on the clock. If you (or ideally the class as a whole) overrule a challenge then the speaker earns a point and continues. The key again is that the challenger must explain the reason for their challenge. Likewise the logic behind a rejected challenge can be teased out through directed questioning.

The person speaking as the minute elapses also earns a point. Play several rounds with different topics. You nominate the starting speaker – obviously sharing this around as appropriate. Learners often find it hard to express their ideas and this is a great way to rehearse those communication skills whatever the vocational or subject context.

For example, speak for just a minute on:

- Preparing wood for painting
- Performing an R1, R2 electrical installation test
- Measures of poverty used by the UK government

Circulate, observe and support learners as they write, then take feedback from carefully selected students based on your observation of their work. Then use their contributions as a platform to ask differentiated questions directed at individuals to tease out further learning.

For example,

- Explain the 12 bar blues using the key terms – progression, I chord, IV chord, V chord, seventh

A follow up question might be: “What would this mean in the key of E?”

- Explain the composition of an atom using the key words – electron, neutron, proton, nucleus

A follow up question might be: “Is the nucleus positively or negatively charged? Why?”

Taboo

A version of this popular parlour game was published recently. It is used in exactly the same way as Key Words, but with one vital difference. The learners are barred from using the terms or phrases you provide – those words are taboo.

The alphabet game

This is a direct questioning technique that gets everyone involved. Keep it ‘buzzy’ and fast paced. Pick a topic and work your way round the room starting with A and moving on to B etc. Students have to come up with a word related to the topic beginning with the nominated letter of the alphabet and explain their choice. Once more the explanation is the vital component where learning is deepened.

This strategy keeps everyone on their toes because students have to think ahead and anticipate what word they would come up with for each letter if they were asked. Some letters are harder than others and you can differentiate for attainment by saving these for the high flyers. Alternatively, you can go round in a set order – this allows learners to work out what their letter is going to be and gives them longer to think.

Key Words

This can be an individual or group task. Write between three and five key words on the board. Students are then challenged to explain succinctly a relevant concept using these key words. This is especially useful for promoting the correct usage of subject specific technical or academic language. Again, learners often find it hard to express their thoughts in the written word and this is a way to help develop that communication skill.
A further alternative is to make it a whole class activity where they collectively attempt to get at least one word per letter. It can be done in any order with the teacher crossing off each letter as it is used successfully.

**True or false**

The title explains this game. Put a statement or calculation on the board and get students to decide whether it is true or false. As ever they must explain the reason behind their answer. The key is to choose a question that has some subtlety or depth and which helps expose a common misconception.

The question need not be complex - for example,

1 + 1 equals what? The answer is surely 2 – what else?

Well, why not “half of 4” or “a quarter of 8” or “10% of 20” and so on? These are all creative, but valid answers.

For example, are the following true or false?

- Water contracts (gets smaller) when it freezes
- All odd numbers are prime numbers
- Natural selection is all about survival of the fittest

The differentiation is again in built as each student will come up with answers matched to their own levels of creativity and the extent of their knowledge.

**The uniqueness game**

This game is especially well suited to calculations, but can be adapted for non-numerical problems. Put a problem on the board and challenge the students to solve it. They have to come up with an answer which is both valid and unique – i.e. no one else in the class has thought of it. You might select your top three answers, but let the students decide whose solution was the most creative. It can be very insightful and encourages lateral thinking.

Another very simple starter, but it really checks on understanding. How many examples can the group come up with and how creative can they be? Again the key is that there are multiple examples available. In this way it can be combined with the uniqueness game.
Let us know what you think

If you wish to give any feedback, make a contribution yourself or have a suggestion for topics of future issues then please contact Kit Jillings, Assistant Director Teacher Training at Kit.Jillings@lewisham.ac.uk or ext. 3271

Summary

- Consider using a mental starter at the beginning of each lesson to recap previous learning and link it to this lesson.
- Consider using a mental starter in the middle of a long lesson to re-energise the class and recap the learning covered thus far.
- When designing a mental starter keep the rules simple – the ‘game’ should not be a barrier to the learning.
- However, keep the problem ‘complex’ – learners should be challenged to be creative and explain their thinking.
- Ideally there should be alternative solutions or approaches to the problem and/or in-built questioning opportunities that allow for differentiation.
- Get inventing!

In Issue five...

We will return to the topic of questioning, but this time in the context of what to do when a student gets something wrong.

Matching up

The students are provided with several questions and several answers, but they have to match the pairs correctly. Once more it is important that they are asked to explain their reasoning. This activity can be done on the board, but works especially well with cards.

Consider matching words with images - for example, matching the names of bones and joints with the correct pictures.

Jigsaw

This is one step further than matching up and is particularly suited to group work. Several solutions and questions (text, images or numbers) can be cut up into pieces and mixed up to form a ‘jigsaw’. The learners then have to put the jigsaw together correctly.

There are hundreds of potential starters – let us know which ones you use.

Matching up

- “Can you give me an example of an alkaline reaction?”
- “Can you give me an example of a line parallel to $y = 2x + 1$?”
- “Can you give me an example of when you would use a mortise-and-tenon timber joint?”

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