

Richard Coe explores how to employ **thinking skills** in your school and to work towards achieving thinking-school accreditation



Szerlet

Overview

Despite working in a school where students achieve fantastic results, many of our staff used to feel frustrated by our students' inability to think critically or creatively. Yes, the students were great at remembering lots of information and writing essays but if you talked to them, many did not actually have a way of expressing their thoughts clearly.

We therefore made the decision to embark on a journey of thinking and discovery. We researched a number of projects and discovered the Cognitive Education Centre (CEC) at Exeter University. Further reading uncovered a programme for schools led by the university and Kestrel Consulting, ultimately resulting in accreditation as a thinking school.

What is a thinking school?

'A thinking school is a learning community in which all members share a common language; where thinking strategies and tools are used across the curriculum ... where all students are developing and demonstrating independent and cooperative learning skills; where the school generates high levels of achievement and an excitement and enthusiasm for learning.' (Definition provided by Kestrel Consulting and the CEC).

In the adjacent column, you can see a table that our thinking drive team worked on when we embarked on this process. The descriptors in italics are taken from Arthur L. Costa and Bena Kallick's work on habits of mind, which has been highly influential in shaping our approach. Further information can be found on www.habits-of-mind.net.

Thinking maps

More information on these maps can be found at www.thinkingmaps.com and www.thinkingfoundation.org

Before thinking skills programme	Impact of thinking skills programme
Teacher-led lessons	A clear student voice Student presentations Student taking lessons <i>Students questioning and posing problems</i> <i>Students gathering data through all the senses.</i>
Lack of variety in students' work	A range of visual tools, creative and challenging stimuli, tasks on all levels of taxonomy scale.
Work in isolation	<i>Thinking interdependently</i> <i>Applying past knowledge to new situations</i> Thinking time for reflection.
Lack of engagement and enthusiasm by students	Passionate response, debate, confidence, respect for learning <i>Responding with wonderment and awe</i> <i>Taking responsible risks</i> <i>Acting with persistence</i> <i>Finding humour.</i>
Lessons dominated by content	Lessons dominated by learning through thinking activities <i>Thinking flexibly</i> <i>Thinking about thinking (meta-cognition).</i>
One-paced lessons	Starters, plenary and task that shift and develop.
One task fits all	Extension tasks for the most able – using Bloom's taxonomy.
Subjects in isolation	Transferable skills and languages Joint homework tasks Project-based learning.

David Hyerle describes thinking maps as providing 'a language of visual tools grounded in the thinking process'. Research tells us that humans are intrinsically visual beings – the eyes contain almost 70% of the body's sensory receptors and send millions of signals every second along optic nerves to the visual processing centre of the brain. Therefore, it makes sense that students retain concepts for longer if they have some visual way of exploring them. Thinking maps have helped my students capture processes and thoughts in a clear but flexible way. The key concept of thinking maps is that they are transferable across all curriculum areas. The students and teachers therefore share what Hyerle terms a 'common visual language'. Each map has a primitive graphic that allows students to develop the map by adding a new box, a new bubble, a new sub-category as they think – rather than doing their thinking off the page – and then trying to write it up. These maps have been particularly useful for Edexcel GCSE drama portfolios.

The **circle map** is used for seeking context. This tool enables students to generate relevant information about a topic as represented in the centre of the circle. This map is best used for diagnosing knowledge or supposed prior knowledge.

For example, you may wish to use a circle map at the very start of a topic – what do we know about pantomime, physical theatre, monologue or mime, for example? All the information is recorded and displayed, the students' responses sitting between the concentric circles, carefully avoiding clustering or linear listing, which can lead to hierarchical ordering. 'We brainstorm all of the time' you might say, which is a fair point, but there is one element that separates this activity from standard brainstorming, which is to introduce a frame of reference.

The **frame** is a meta-cognitive tool that allows students to reflect and evaluate *how* they know something rather than just what they know. When students draw a frame around any map they are then made to ask *why* they said what they did. Where are they coming

from? Where did they receive this information? Is it reliable? Are the answers dependent on other factors, such as personal histories, culture, belief systems and influences including peer groups, the media or parents? This can then lead to thoughtful and questioning discussion or exploration. In my lessons I have come back to the circle map for each lesson – adding to it, eliminating other ideas dependent on what has happened. The circle map with the frame reminds me of role-on-the-wall, but it can be used for all those ideas that are not about individual characters, such as themes or genre. Frames of reference can also be easily linked to de Bono's **thinking hats**, which ask students to approach a task from six possible points of view. Produce colour frames (linked to the coloured hats), which become a frame of reference for the students' thinking. For more information on thinking hats go to www.edwdebono.com.

The **bubble map** is simple in its method and focuses on improving students' descriptive skills. I have used bubble maps in drama to describe the conditions of where characters live, the appearance of key roles, how students feel when trying to devise new work, to describe acting performances and students' reaction to a new device. In my experience, it is essential that students stick to using adjectives, otherwise the function of this map begins to become hazy and can end up like another general brainstorming map. I always follow up the use of a thinking map with some kind of formal written assignment or practical exploration and ask students to use the map explicitly to help. The **frame of reference** can be very useful in trying to ascertain why they students have written what they have – a bubble rich in negative adjectives may stem from some complex frame of reference. The map could also be useful if employed when helping students to stand in someone else's shoes – such as 'describe character A from character B's point of view'. Again you can use de Bono's hats here as a way of exploring ideas from multiple points of view. This technique can be developed with instructions such as: 'if you are a black hat thinker find as many negative descriptors as

you can about the piece you just saw. If you are a red hat thinker make descriptive links to the emotions that you felt when watching this performance.'

The **bridge map**, which is a visual pathway for creating and interpreting analogies, asks students to make a link between a relationship they are studying and connect it to *their* world so that they can understand it on familiar terms. For example, in a sentence like 'words are to Jimmy Porter as a gun is to a gang member', the relating factor here is that both Jimmy and the gang member use weapons that are destructive. Bridge maps are especially useful when students are finding it difficult to express abstract concepts or are struggling to articulate relationships in drama. For all of you lumbered with Key Stage 3 English, it is a great way of exploring Shakespeare in familiar terms: 'Trinculo is to Stephano as Rodney is to Del Boy' amused me greatly! For a brief guide to when to use thinking maps, visit the Rhinegold website (www.rhinegold.co.uk) and follow links to *Teaching Drama* support material.

Thinker's keys

Thinker's keys, devised by Tony Ryan, are 20 tools that are simple, require minimal planning or resources but really help unlock students' critical and creative thinking. Again, these can be adapted for all curriculum areas but I will share some ideas we have used in drama. A sample of thinker's keys with examples and justifications can be found at www.thinkerskeys.com

The reverse

This key asks students to consider what would not be seen or included in specific contexts. For example, what would you *not* see in a production directed by Stanislavski or what do you *not* want to see in your own devised performance? By using a different approach students are made to step away from the usual checklist approach – you are assessing knowledge through the back door.

The alphabet

Students create an A–Z for a given topic; this sounds simple but it is a great starter or revision activity. I have asked students to create an alphabet on key words in our exploration of AS texts; key words for analysing performance; attributes of a good drama student and so on. You can do sections of the alphabet over a term as a quick starter or use the work as a display, which can be referred to throughout an exploration or year.

The picture

Take a picture at random and show it to the students. Then ask them to try and make connections between the picture and whatever you might be studying at the time. For example, project a picture of jelly and ice cream and ask students how to link this with rehearsal process. It is amazing how creative and analytical students can be when challenged with such an abstract idea – it is a great way of introducing complex concepts like symbolism or Brecht's theory of montage while getting students' brain pathways working. I find it particularly useful to explore character emotions for texts at AS or GCSE level. You can then set this as a homework task. Get students to bring in seemingly unrelated pictures that they think can show how a character feels at a certain point in a play.

How do you become a thinking school?

Contact Kestrel Consulting who work directly with Exeter University, who will help you with training, networking and planning your approaches. To gain full accreditation you will need to submit an application and portfolio of evidence covering 14 criteria to the CEC. An assessor will then visit your school and make a decision on whether or not to grant you thinking-school status.

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