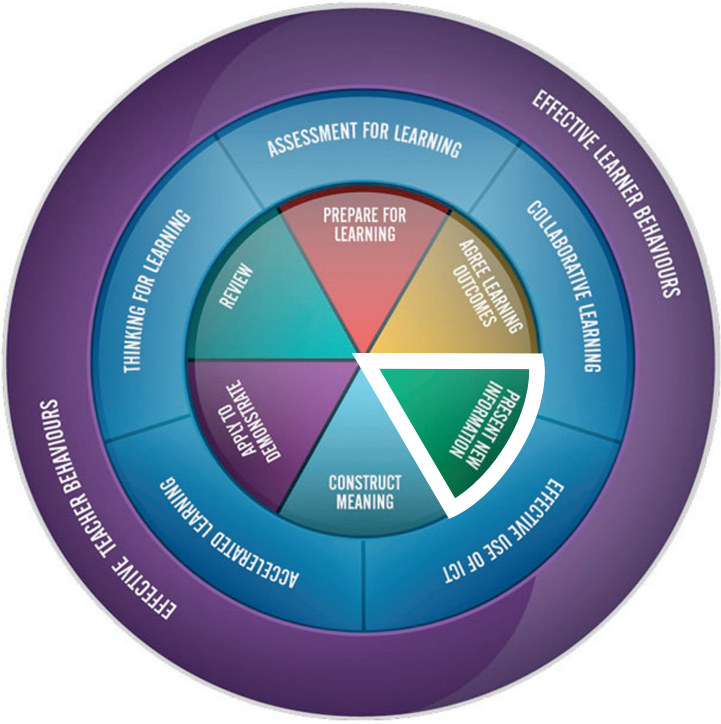
SSAT inquire inspire innovate impact

teep teacher effectiveness enhancement programme®

Present new information through all the senses



'Most people tire of a lecture in ten minutes; clever people can do it in five. Sensible people never go to lectures at all.'

Stephen Leacock
My Discovery of England (1922)

It has been suggested that concentration span is two minutes ahead of your age. Although this is a sweeping generalisation, and appears not to apply when young people are presented with films or games consoles, it holds true that learners need to have their learning broken up.

It is also true that learners remember more at the beginning of a learning activity than they do in the middle. The end of an activity is also more memorable than the middle.

Bearing these two axioms in mind prompts us to plan sessions in which there are many and varied activities, increasing the number of beginnings learners experience, whilst delivering direct instruction in short sections.

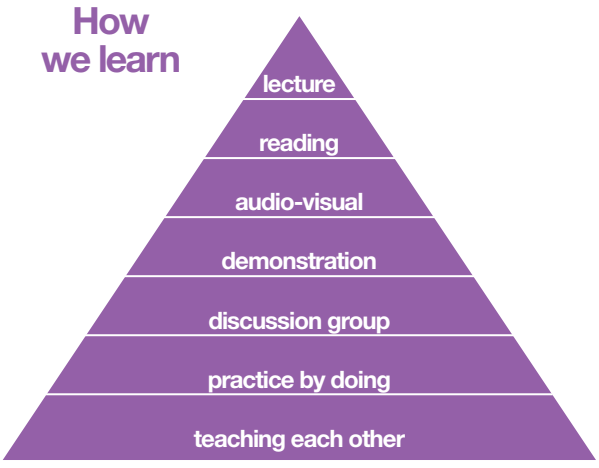
The third stage of the TEEP cycle is where the teacher presents new information in a way that will captivate and motivate the learner. We might create a sense of wonder and awe that stimulates the class into actively seeking further learning experiences throughout the course of the session. The input may be directly from the teacher or from posters, video, music, guests, other learners, the environment, animations, the Internet, a demonstration, books or stories.

The opportunities here are many and varied, and the method of input can be changed frequently. The effective use of questions can greatly enhance this stage of the learning cycle. Use open, fat or fertile questions as these will lead to deeper thinking. We must aim to keep the input short whilst maximising the time learners are actively engaged. The aim is to make the learning as experiential as possible.

'Students achieve a richer understanding of content in a climate of surprise, suspense, uncertainty and disorder.'

Prigogine and Stengers, Gleik, and Doll

Though this sounds like a recipe for chaos, a few of these elements are clearly worthwhile incorporating into sessions. When planning strategies to present information to learners we should consider all five senses, and plan to include strategies that engage imagination and the 'emotional senses'.

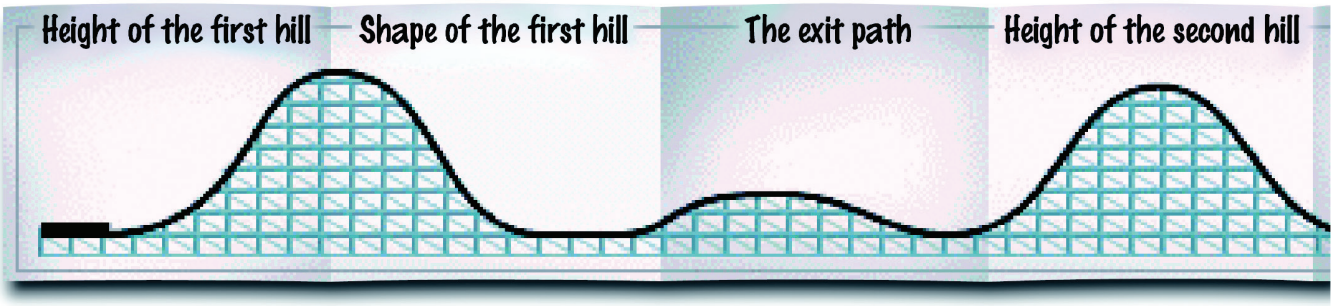


Dale's Cone of Experience (on the previous page) shows the range of experiences that need to be present for students to identify concrete and abstract ideas. At the top the learning is passive. Near the bottom it is far more active. Whilst not all learning can take place right at the bottom, the message is clear that we should attempt to engage learners directly with their learning. Teacher exposition, reading and audio-visual inputs are still valid, but should be kept short and preferably be directly related to an activity which invites students to interact with the information being presented.

Dale's Cone has often been misused or misinterpreted, the percentages have been added and almost become fact. These were not written by Dale, but we feel in TEEP the visual metaphor is useful to represent the idea that learning activities can be put into broad categories.

Roller coaster learning mat

Try to pair the input with an activity, some questions or a graphic organiser so that learners are not watching passively. Short clips of roller coasters might provide an exciting stimulus for speed-time graphs, but when paired with a simple learning mat activity, learners are likely to be more engaged and seek links to help them with the activity. Frequently there will be overlap with the construct part of the TEEP cycle here.



Where would you place these labels?

High speed | **Low speed** | **Acceleration** | **Deceleration** | **Fear** | **Excitement** | **Lightness of stomach**

What other labels would you have? Can you sketch a speed/time graph for this rollercoaster?

Sight

This is often the easiest sense to appeal to, and learners respond to visual input most readily. ICT offers a powerful tool when it comes to preparing and displaying high impact, visually engaging materials. When aiming to project pictures onto the board, go for quality – when Googling for images plump for large images only (using the advanced image search function). The images are less likely to be pixilated, or blurred. Use colour unless sepia or black and white is appropriate to the topic.

- Use shape to stimulate discussion in maths – if numbers are shown as icons or items and they visually multiply on screen the concept of multiplication is seen as well as explained.
- Simple animated sequences of, for example, making simple circuits on the CITB Construction Skills Awards site (www.constructionawards.co.uk), allows learners to build and test a simple circuit. It should be stressed here that any visual input is a poor substitute for an activity that learners can actually do themselves.

Short film and television clips can be used to introduce information – excerpts from trailers or feature films where the sequence exemplifies the topic or information you wish to introduce: Trailers are easy to download using QuickTime or Real Player applications.

Use a clip from:

- Dark Water or Wolf Creek – demonstrate the conventions of horror (media).
- The Day After Tomorrow – to focus on the effects of global warming (science).
- Saturday Kitchen – for recipe ideas and to see professional chefs at work (hospitality and catering).
- Use the Film Education free resources on films such as Goal to show sequences from football matches to analyse play and performance (sports science).
- The Pathé News site offers original news footage of historical events such as the D-Day landings for a small fee (performing arts).
- Clips from series such as 'Mega Structures' (construction/engineering).

Archived news reports can be edited to provide the information you need.

All major news broadcasters now offer recent archive searches. We can access, for example tsunami and earthquake footage, famine and war coverage, local current affairs, analysis and comments. We can also access digital film, television, images, maps and animations via the Internet. For example business might introduce the topic of customer care using a photograph of a business, an audio clip of a customer being served, a comedy clip from 'Fawlty Towers' or a real-time webcam tour around a local organisation.

Slow reveal can be a useful device in which only part of an image is shown initially. After the learners have discussed what they have access to, more and more can be revealed. This works really well when considering the deeper significance of photographs and how spin is used to portray certain meaning.

Science
Close up of a raptor's beak – how is it adapted for predation?

History
What did the gift from France to America signify? What does it signify now?

Outdoor activities
Make three comments on the canoeist's posture and balance

Science
In your own group generate three reasons for the sky changing from blue to red as the sun goes down

Sound

Music can be used to stimulate thought and to support the visual images in the sight section. For example: songs that have relevant lyrics such as Blondie's 'Atomic', Diana Ross' 'Chain Reaction' and 'Words', etc. Classical music to accompany images and create mood-music can be easily edited using the free program Audacity, which is available on the internet (http://audacity.sourceforge.net). This allows you to edit any sound file to just the key section of lyrics, and allows you to fade in and fade out, as well as many other functions.

Sound effects can have a stimulating effect on students; in geography or science rain forests are studied for different topics – the sound effects of the jungle are easily played, along with a projected photograph of the jungle. The sound of an unborn child's heart beating in the womb can be played at the start of a session on human development, or varying heart rates to compare different physical activities in sports science.

In Media Studies, sound effects are used to stimulate creative writing such as the sound of gentle waves on the beach, a storm, or a creaky old door. The beginning of films like 'Saving Private Ryan' provide a barrage of sound that may help present new information and create a sense of the reality of 'being there' for performing arts.

Touch

In joinery, different types of wood can be handled by the learners to stimulate discussion of their various uses.

When investigating properties of construction materials, learners stretch, bend and manipulate materials to investigate properties and reactions. Rusting materials can be handled so that learners can actually feel the effect of corrosion, or the lack of it.

During the study of magnetism in science experimenting with nonmagnetic and magnetic metals will aid the understanding of magnetic force.

Scientists may tape out the position of a body on the floor of the laboratory; learners would have to physically collect, rather than be given, evidence, then 'bag it up' to measure and record.

As a stimulus for performing arts the subjects or symbols of poetry and literature can be realised – for example Carol Ann Duffy's 'Valentine' – learners can peel the onion to reveal the layers that the poet is referring to.

Adjective bags, in which different textured objects are hidden from view and learners put their hands in and try to describe what they are touching is a good way to develop precise and descriptive language. Other members of the group have to guess the objects as the adjectives build up.

In art and design or graphics, the peeling of an orange, which is laid out flat, helps students to see the relationship between the 3D objects and their 2D plans.

Taste

- In performing arts – cook 'fadge' a staple of war-time menus – and let the learners taste it... yuk! This will help them to appreciate life on the home front for a production.
- In travel and tourism sample foods of the world to enliven an investigation into major tourist destinations.
- Make and eat 'baby foods' when studying child development in health and social care.
- Citrus fruits, vinegar and milk can be compared to determine acid and alkaline in science.
- Bitter, sweet, sour and salty taste stimulators can be provided so that students can experience the effect of taste centres on the tongue in catering sessions. Don't forget umami!

Smell

Perhaps our most powerful sense it is also our most under stimulated when it comes to formal learning. The olfactory bulb in our brain is in direct contact with the memory and emotional parts of our brain. This is why smells can have such an emotive effect on us. For most people certain odours will trigger an overwhelming emotional response. Consider a summer rainstorm, freshly baked bread, the first cut grass of late spring, candyfloss at a fun-fair, a perfume or a sea breeze. These smells can transport us back to a person, place or time in our lives far quicker and with more impact, very often, than any audiovisual hooks.

For example:

- The smell of burning in chemical reactions – science.
- The smell of spices when discussing exotic locations in travel and tourism.
- The scent of lavender when studying relaxation treatments in beauty therapy.
- The scent of the sea from sea breeze air freshener as a stimulus for a performing arts improvisation with a seaside theme.
- The smell of fruit and vegetables in health and social care sessions.

Emotions/imagination

Any contentious or potentially thought provoking topic such as genetic engineering or cloning (science), the study of vegetarianism (catering), risk to health (health and social care), health and safety (construction) can be represented by thought provoking images and then the learners can be asked to identify how they feel by standing in front of, or choosing a particular photograph of an individual demonstrating a variety of facial expressions. Colour can be used to represent feelings and emotions after viewing a video clip or reading an article. Learners will often choose yellow or orange when a stimulus induces happy emotions and darker colours for sadness or fear. A similar activity can be done with shapes. Do you feel like a prickly dark blue star, or a magenta aubergine?

‘Not a red rose or a satin heart. I give you an onion. It is a moon wrapped in brown paper. It promises light like the careful undressing of love.’

Carol Ann Duffy
Valentine

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Contact the TEEP team

www.ssatuk.co.uk/teep Email **teep@ssatuk.co.uk** Phone **020 7802 9003**

SSAT, 5th Floor, 142 Central Street, London, EC1V 8AR
T 020 7802 2300 info@ssatuk.co.uk www.ssatuk.co.uk

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Printed: December 2013