Effective teacher behaviours

The research base

The TEEP model draws on significant research (McBer 2000 and Muijs & Reynolds 2011) that has identified what is required of teachers and of learners in order for them to gain the best learning outcomes possible.

The research commissioned by the DfEE from the Hay McBer group and published as ‘Research into Teacher Effectiveness: A Model of Teacher Effectiveness’ in 2000, further identified distinctive and complementary factors on which effective teaching is based. From this a model of effective teaching was drawn up and was to be one of the major influences on the development of the TEEP Model in 2002.

The TEEP framework continues to grow and develop to incorporate the latest research in effective teaching and learning. Much research has examined what makes the most difference to student outcomes in the classroom. The key factor for teachers is their knowledge of effective teaching and learning strategies.

One study, conducted by John Hattie, sought to find out more about the teaching and learning strategies that are the most effective in the classroom. Hattie examined over 800 meta-analyses looking at the influences on student learning. He identified that there were five main areas that contributed to student learning and achievement: the student, the home, the curricula, the teacher, and teaching and learning approaches. All of these had a considerable impact on student achievement. Hattie took this further by identifying the underlying cause of these effects, and identified that the key to making teaching effective was through ‘visible teaching’. This involves teachers deliberately intervening to ensure that their students develop and make progress (CUREE, 2011).

Hattie identified several ways to make teaching and learning visible, stating that effective teachers:

- are aware of the students’ needs and starting points and adapt to them
- monitor learning and feedback
- provide direction
- step back when students are progressing towards the success criteria
- use a range of learning strategies
- provide meaningful and challenging experiences (Hattie, 2012).
The TEEP programme has grouped effective behaviours into:

- classroom climate
- classroom management
- variety of teaching and learning approaches
- interactive teaching.

### Classroom climate

The importance of the classroom climate was noted as among the more critical factors in promoting learning (Hattie, 2012). Research (for example Adelman & Taylor, 2005 and Cohen et al, 2009) link a warm, positive classroom climate with achievement and good self-esteem. The classroom features:

- supportive and warm relationships between the teacher and pupils (teacher perceived as helpful, goodhumoured, leading without being over strict, enthusiastic)
- teacher genuineness (having the same attitude away from pupils)
- high expectations of teacher (values pupils’ work, enthuses about curriculum)
- teacher encouraging pupil interaction
- a cheerful and inviting learning space
- feeling emotionally safe—students feel able to take some risks with learning without any ‘put-downs’ from other students.
- an attractive and ordered physical learning environment.

A focus in TEEP training is that of demonstrating high expectations. Key factors are that the teacher:

- considers the language used in the classroom as this not only affects classroom climate, but also the climate for learning
- makes sure that the classroom is a ‘no put down zone’
- asks higher order open ended questions giving time to form answers
- believes all pupils can learn and expects high quality outcomes in content and presentation from everyone
- gives pupils specific, regular, constructive feedback about how to improve their work
- monitors how rewards and sanctions, including verbal, are distributed
- has strategies and structures to support students achieve the learning outcomes.

### Teachers create an inviting environment by:

- Welcoming – greeting pupils as they enter the room helps to make pupils feel as though they are wanted and are welcome. This creates a more relaxed atmosphere.
- Being organised – an organised room gives pupils a clear indication that you are ready for their lesson, which also gives them the message that you consider their presence as important as you have prepared for them coming.
- Creating a bright and colourful environment – if possible the classroom should be bright and colourful with displays of pupils’ work on the walls, or relevant posters which support their learning and act as a stimulus to them.
- Creating a comfortable environment – it is not always possible but is preferable to make the classroom as comfortable as possible; both pupils and teachers work better when they are comfortable. Making sure that desks and chairs are the appropriate height for the age of the pupils ensures at least some measure of comfort when working as does maintaining an appropriate temperature.
Classroom management

Classroom management has been defined as the provisions and procedures necessary to establish and maintain an environment in which instruction and learning can occur (Duke, 1979). The primary goal of effective classroom management is not the reduction of misbehaviour or even the creation of an ‘orderly’ environment. Although they are related issues, effective classroom management and the establishment of order are not synonymous. For example, teaching practices that lead to passive non-engagement would not threaten an orderly environment, but would reduce opportunities for learning (Doyle, 1986). Student learning is the primary goal of effective classroom management.

Most researchers have found that classroom and behaviour management influences pupil achievement in the following way: good classroom management leads to more pupils ‘on task’ increasing the opportunity for pupils to learn, leading to higher attainment and achievement.

Researchers have identified factors which determine effective classroom and behaviour management.

These include the teacher:
• ensuring that rules and consequences are clearly understood
• starting the lesson on time
• using times of transition effectively
• ensuring materials and tasks are ready and materials distributed effectively
• limiting disruptions to the classroom
• using a reward system to manage behaviour
• correcting inappropriate behaviour immediately, accurately and constructively
• monitoring the entire classroom.

Good classroom and behaviour management relate strongly to higher achievement.
Variety of teaching and learning approaches

Effective teachers have been found to use a varied teaching approach to keep pupils engaged, and to vary both content and presentation of lessons. Teachers’ own preferred ways of learning tend to affect the ways in which they teach. Understanding that students learn in different ways at different times is essential; teachers need to ensure they use a variety of approaches to cater for this multiple need. The effective teacher will ensure learning activities are scaffolded to enable all learners to access. Effective teaching involves effective organisation and management, but no single style or approach to class organisation is best.

Research has identified that pupils appreciate teachers who value them as individuals and who are consistent in their approaches and behaviours. Showing genuine interest in pupils' lives is important, as is sharing aspects of your own life. Pupils also appreciate teachers who are enthusiastic about their subject, and can transmit their enthusiasm. They value teachers with good classroom management, who act quickly to correct misbehaviour.

It is important that teachers allow time for pupils to be actively involved in their learning, and make links between new and prior learning. It is also important to have routines and systems for starts and ends of lessons, transitions, homework routines etc. and that time is spent teaching the routines to pupils. Visual displays of the subject material being studied has been shown to improve long-term learning by 90%, so the classroom displays should be designed to support learning and be used by pupils.

Students need to be taught how to summarise and memorise in a variety of ways. Memory maps for note taking can be very valuable for some students- others will remember songs they have written to well-known tunes more easily. It is also important to build in some fun and encourage a sense of curiosity and exploration.

Learning styles? Built on a myth or confused in execution?

Many academics will raise the point that there is little or no research that shows that ‘learning styles’ has a positive impact.

A large number of ‘learning styles’ theories have been developed by psychologists in the latter half of the twentieth century. These include, for example, Bruner’s Constructivist theory, Festinger’s cognitive dissonance theory, Roger’s experiential learning theory, Kolb’s experiential learning theory and Vygotsky’s social development theory.

Some will argue that it is the execution and interpretation of their findings is the issue. VAK as a taxonomy for example grew exponentially. This has had detrimental effect in some cases when students have been assigned a learning style that could not shift. How can a learner learn in the same way across all disciplines?

‘Styles, like abilities, are not etched in stone at birth. They appear to be largely a function of a person’s interactions with the environment, and they can be developed and socialised. An individual with one style in one task or situation may have a different style in a different task. Moreover, some individuals may have one preferred stylistic profile at one stage of life and another at another stage.’
Sternberg and Grigorenko 1997, p708.

SSAT TEEP’s approach has always been that teachers should adopt a multi-sensory approach to teaching and learning, and a total understanding that learners learn in different ways so that all students can access and process information. We need to stimulate the development of students’ self-awareness rather than provide a label.
And multiple intelligences?

Howard Gardner articulated eight basic types of intelligence without ever claiming it is a complete list; musical - rhythmic, visual - spatial, verbal - linguistic, logical - mathematical, bodily - kinesthetic, interpersonal, intrapersonal, and naturalistic. He later suggested that existential and moral intelligence may also be worthy of inclusion.

The application and misinterpretation of the theory of multiple intelligences varies widely and is often confused in implementation. As Gardner says, ‘the concept of intelligences was often conflated with that of learning styles; in fact, an intelligence (the power of a computer) is not at all the same as a style (the way in which one allegedly approaches a range of tasks)’ (Multiple Intelligences: The First Thirty Years, 2011).

In 2006, anthologist Jeffrey Shaler put together a book called “Howard Gardner under Fire” and invited 13 scholars to critique his work. Some academics will say that there is little or no evidence base for his work.

Gardner is part of project Zero, an educational research group at the Harvard Graduate School of Education. Today, Project Zero’s work includes investigations into the nature of intelligence, understanding, thinking, creativity, ethics, and other essential aspects of human learning. Their mission is to understand and enhance high-level thinking and learning across disciplines and cultures and in a range of contexts, including schools.

Interactive teaching

Although research has shown that whole-class teaching is one of the most effective ways of classroom teaching (Muijs & Reynolds, 2011), this doesn’t mean that the teacher should lecture the class. Almost all researchers agree on the importance of interaction between teachers and pupils and most studies reviewed in the introduction pointed not only to the importance of spending a substantial part of the lesson teaching the whole class, but also of teaching in an interactive way.

For example, in their study of primary school pupils in England, Mortimore et al (1988) found positive effects for the use of frequent questioning, of communicating with the class and of the use of ‘higher order’ questions/statements. Similarly, Veenman (1992) found this to be a crucial element of direct instruction in his research in the Netherlands. American researchers had already demonstrated the importance of interaction in their research prior to this. Rosenshine & Furst (1973) found the use of a wide variety of questions to be a crucial factor in their research from the 1960's and early 1970's.

It has also been found that an interactionist style of teaching is favoured by both teachers and students, as well as being linked with higher achievement (Djigic & Stojkovic).

Questioning is an effective and important part of the lesson for a variety of reasons:

- First of all, questioning allows the teacher to check pupils’ understanding of the lesson. This gives the teacher the information s/he needs to decide whether or not certain topics need to be retaught, and at what level to pitch the lesson. This immediate feedback to the teacher of how well pupils have grasped the topic is one of the advantages of whole-class interactive teaching over more individual methods, where feedback on pupils’ understanding to the teacher is slower (Brophy & Good, 1986).

- Questioning allows pupils to practice and master the topic taught before having to go on to the next topic. Being able to correctly answer questions also enhances a pupil’s feeling of mastery, which will in turn enhance the pupil’s self-esteem and make her/him more receptive to learning in future (Gagne et al, 1993).

- Another way that questions, in particular higher level questions, can aid learning is through what is known as ‘scaffolding’. The term scaffolding derives from research by the Russian psychologist Lev Vygotsky (1978). He believed that pupils learn through interaction with others, and that learning takes place in what he termed the ‘zone of proximal development’, which he considered to be the area beyond what a pupil can learn on her/his own, but within which she/he can learn with the help of others who can provide ‘scaffolds’ for the pupil’s learning. These others can either be adults or other pupils who possess some additional knowledge to that of the pupil. It is clear that interactive teaching can play an important role in the scaffolding process, with the teacher providing the challenge that pupils need to progress to a higher stage of learning through testing higher level questions. Formative assessment is based on constructivist models of learning and has been linked directly to Vygotsky’s ideas on scaffolding, which give teachers a key role in extending children’s understanding as it develops.

- Answering questions also allows pupils to clarify their own thinking and understanding of the concept taught, and makes them verbalise their thinking, especially if they are asked to explain the method or knowledge they used to work out a particular answer. This will help them develop verbal skills they will need not only in school but in the workplace as well.
Questions and wait time

Wait-time is a period of silence after a teacher asks a question (teacher waits for an answer from pupils) or after a pupil response (before the teacher asks the next question). Over three decades, research has shown that teachers typically wait for between 0.7 and 1.4 seconds for an answer after asking a question before going on to a prompt or to ask another pupil. However, it can be beneficial to increase wait-time, especially when asking higher order questions. If the teacher waits for 3 or more seconds, many benefits are found:

- The length and correctness of responses increases.
- The number of pupils who volunteer to answer increases.
- The number of pupils responding ‘I don’t know’ or not answering decreases.
- There is a tendency for pupils to do better on standardised tests.
- Teachers questioning becomes more varied.
- Teachers ask more higher order questions.
- Teachers ask more follow-up questions, and these are more complex.
- It has also been found that if a pupil hesitates when giving a response the teacher will wait for only 0.5 seconds before cutting her/him off or interrupting. Here too, giving the pupils 3 seconds will often result in their producing more complex answers.

Bloom’s Taxonomy (1956) – Types of questions

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Examples:</th>
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<tbody>
<tr>
<td>• Making value decisions</td>
<td>• Do you agree?</td>
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<tr>
<td>• Resolving different opinions and controversies</td>
<td>• …what’s the most important...</td>
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<tr>
<td>• Developing pupils’ opinions</td>
<td>• Put into priority order...</td>
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<tr>
<td>Synthesis</td>
<td>Examples:</td>
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<td>• Creating a unique product</td>
<td>• What would you predict...?</td>
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<td>• Combing ideas to make a new whole</td>
<td>• What solutions could you find for...</td>
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<tr>
<td>Analysis</td>
<td>Examples:</td>
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<tr>
<td>• Separating whole into parts</td>
<td>• List evidence.</td>
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<tr>
<td>• Subdividing to show structure</td>
<td>• What are the parts of...?</td>
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<td>• Finding underlying shape</td>
<td>• Classify...</td>
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<td>• Identifying motives</td>
<td>• Compare/contrast...</td>
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<td>Application</td>
<td>Examples:</td>
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<tr>
<td>• Problem solving</td>
<td>• How is... an example of...?</td>
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<tr>
<td>• Applying information to get results</td>
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<tr>
<td>• Using facts, rules, principles</td>
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<td></td>
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<tr>
<td>Comprehension</td>
<td>Examples:</td>
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<tr>
<td>• Interpreting</td>
<td>• Can you tell us that in your own words...?</td>
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<tr>
<td>• Translating between media</td>
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<tr>
<td>• Describing in own words</td>
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<tr>
<td>• Organising/selecting facts/ideas</td>
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<td>Knowledge</td>
<td>Examples:</td>
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<td>• Remembering, memorising</td>
<td>• Who, what, when, where, how...?</td>
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<td>• Recognising</td>
<td>• Describe...</td>
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<td>• Recalling identification</td>
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<tr>
<td>• Recalling information</td>
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Research shows that teachers tend to concentrate on ‘knowledge recall’ type questions (75 %+). In order to overcome this, the teacher needs to plan specific types of questions that will be asked, perhaps using the hierarchical Bloom’s Taxonomy of Educational Objectives as a guide.
A flexible framework

The TEEP framework is flexible and can incorporate the latest appropriate research and taxonomies, such as expansive pedagogy, SOLO and SOLE. The TEEP practitioners will need to make links to this research and taxonomies and ensure context specificity.

Ten dimensions of expansive pedagogy

Teachers make decisions throughout lessons which influence the kinds of learning which in turn leads to the kinds of desired outcomes of education (DOEs). To help teachers make the right decisions Claxton and Lucas offered the SSAT Redesigning Schooling symposium a decision-making tool as a way of framing the kinds of minute to minute decisions teachers may make to cultivate DOEs.

It is important to point out at this stage that these choices are not binary, either-or decisions. Rather, each is a continuum along which the informed teacher can adjust her practice as she ponders how best to create optimal conditions for learning (Claxton & Lucas, 2013).

SOLO Taxonomy

The SOLO taxonomy stands for Structure of Observed Learning Outcomes. It was developed by Biggs and Collis (1982), and is well described in Biggs and Tang (2007).

It describes level of increasing complexity in a learner’s understanding of a subject, through five stages. Learners will not always progress through all five stages, just as the teaching may not plan for all five stages within a lesson or series of lessons.

- **Pre-structural**: the learner has not really understood the point, they have acquired unconnected information which is not organised.
- **Unistructural**: the learner makes some obvious connections in the information, but these are simple and focus on only one aspect.
- **Multistructural**: the learner focuses on numerous aspects of the information but the meta-connections between them are missed. The aspects are treat individually.
- **Relational**: the learner has integrated the different aspects into a coherent whole. This point is where we would normally say the learner has an adequate understanding of the topic.
- **Extended abstract**: the learner makes connections beyond the topic area, conceptualising at a higher abstract level, generalising and transferring the principles to a new topic or context.

SOLE

SOLE stands for Self Organising Learning Environments. Professor Sugata Mitra started with the germ of an idea; how far and where ‘self-organised’ learning could go.

Building on his ‘Hole in the Wall’ experiments, Sugata’s research showed that groups of children, given shared digital resources can learn to use computers and the internet and progress to learn almost anything on their own, providing they are interested. They do not seem to require adult supervision. Further research showed that groups of children with access to computer and related technology are capable of successfully answering examination questions without traditional schooling.

SOLEs facilitate self-organised learning – places where children can work in groups, access the internet and software, follow up on a class activity or project, or take them where their interests lead them. A SOLE learning session can include an abstract question which fires learners’ curiosity and encourages them to question and link the learning.

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<td>Authentic</td>
<td>Contrived</td>
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<td>Questioning</td>
<td>Certain</td>
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<td>Practice</td>
<td>Theory</td>
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<td>Extended</td>
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<td>Workshop</td>
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<td>Group</td>
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<td>Virtual</td>
<td>Face-to-face</td>
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<tr>
<td>Facilitative</td>
<td>Didactic</td>
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<th>Attitude to talent</th>
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<td>Attitude to knowledge</td>
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<td>Means of knowing</td>
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<td>Role of the teacher</td>
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References and further reading


