Think alouds

Let your pupils hear your thoughts as you plan and carryout tasks. Think-alouds show pupils how you have arrived at decisions, reasons for actions, insights into how to complete the task successfully, pitfalls to avoid, how to correct mistakes… etc. They should show your thinking very clearly – allowing the pupil to see the metacognitive processes at work. Top tips : keep the think aloud brief, pay attention to your own thinking processes as you design your think-aloud, use 'I' statements instead of 'you' statements, name your cognitive and metacognitive processes e.g. "Ok, that didn't work, so I have to try a different formula" (problem solve), "I know I usually understand the article better if I have a good look at the title and the photographs first" (self-regulating learning).

Removing barriers

As we practice something we often switch into an automated mode. It could be argued that if you can do certain functions with ease, such as write, spell, read, make notes, type, etc that it frees up working memory for higher order thinking including the opportunity to think about your own thinking. Help pupils to master some of the basics to ensure they have head space for more complex thinking. Provide extra time and support for engaging in thinking about their own thinking. A lack of vocabulary can also hinder the reflective process, so support vocabulary development used in reflection, analysis, strategies etc. Provide structures such as thinking maps to help them express their ideas, teach thinking strategies such as the 6 thinking hats or thinking routines.

Types of praise and reward

Pupils are quick to work out what you value. Praise, reward and celebrate improvements in learning, trying out new strategies, going the extra mile, supporting others, first drafts and final drafts, achieving milestones, learning, responding to feedback, making changes to their approach as a learner. Set pupils high standards and build growth mindsets.

Feedback and self-assessment

Feedback is a high impact strategy if you can get it right. Too much feedback and pupils are overwhelmed, too little and they don't know how to move forward. Too surface and little actually changes. Too deep and they can't take the first step. Most importantly pupils need a chance to act on feedback, whether it is verbal or written, from the teacher or their peers.

Teachers can use think alouds to help pupils develop the skills of how to actually respond to feedback. They can use models to display to other pupils what good 'response to feedback' actually looks like. Self-assessment is important for building independence. Time is needed, structures are useful for scaffolding responses. How do you actually help them to get better at self-assessing – not just doing it but actually improving their ability to do it? How do you set high standards for the quality of response expected?

Modelling

Modelling helps pupil to understand the processes they are about to try. For example, modelling how to write a really good explanation and examining all the features that make that explanation so good or modelling how to create a two sided argument for a history exam question. Modelling can also focus on other types of learning processes, for example modelling how to correct a mistake or how to check your answer or how to improve a conclusion. Modelling can be especially powerful when combined with elements of a 'think aloud'. Encourage pupil to pupil modelling.

What does success look like?

Knowing your destination helps you to achieve it. Being able to look at a completed, successful example of work and unpick the elements that make it such a good piece of work can really help pupils to plot their own path to success. You can use professional work, the work of past pupils or even work from the current class as models. It can be particularly effective at raising standards when pupils know it is another pupil that has created the work. Teach pupils how to examine and deconstruct a model and create their own success criteria.

Teach strategies explicitly

How many ways are there to memorise a list of facts? How many ways do you know? How many ways do your pupils know? How do they know which of these strategies might be most effective for the task at hand? Are pupils aware that not everyone is using the same strategy? Do they get a chance to evaluate the effectiveness of their strategy and test out new strategies? The scissor kick won't get you to the Olympics, but what if you don't know the Western role and the Fosbury flop even exist? What would the key strategies be in your subject and how do you make them explicit?

Teach pupils how to plan

Pupils who can't plan how to start their work independently probably don't have well developed metacognitive skills. You need to help pupils to develop the kind of questions that are useful when first approaching a task. E.g. "What will be the trickiest part of this task", "What kind of mistakes did I make last time and how will I avoid that this time", "What equipment will I need?". Too often instead of developing pupils' ability to ask these questions we do the thinking for them by asking the questions ourselves. Modelling and thinking alouds can also be used to support pupils in developing their planning skills, e.g. "The first thing I do is to look at the subheadings and then read through the questions at the end of the chapter. I've found this helps because…". Deconstructing models can also be useful, e.g. "What do you think the writer had to do first?", but don't just do the thinking for them - teach them how to develop their analysis of a model so they can ask their own questions!

Use questions to develop monitoring

Ask pupils to think aloud as they carry out a task. Get them to verbalise the questions they are asking themselves. Hearing the internal dialogue of others can help a pupil consider what they asked or didn't ask in comparison to other pupils. Another strategy is to provide pupils with banks of questions that might help them during modelling that are linked to a particular task or are more general. Pupils select a few questions to ponder on at a mid-point during the learning task. Use a think aloud to help pupils see the internal dialogue that takes place as you complete an activity and how you use this to make changes to your approach or how you use this to check and improve your understanding.

Time to talk

Give pupils time to talk about how they have approached the task, what difficulties they experienced, how they ran into problems, how they corrected mistakes or make changes to their approach, what they would do differently next time etc. Help them to discuss in pairs or groups the strategies and the effectiveness of these strategies.

Use wrappers

Wrappers can be used around a variety of different type of activities such as exams, note taking, problem solving, essay writing. E.g. the teacher helps the pupil to consider a strategy they are going to use for note taking whilst watching a historical documentary. The teacher may support pupils by teaching them a new strategy to try. The pupils then use the chosen strategy. After completing the activity, they are given the opportunity to reflect on the strategy. Would they use this strategy again? What would they need to do to make the strategy more effective? Would they combine this with other strategies? Etc. They make a plan / commitment of what they will do next time. The pupils are given further opportunity to complete the same type of task, each time modifying their strategy and evaluating it with other pupils.

Developing self-reflection

How could you increase your pupil's ability to be reflective? How could you help them to have a more systematic approach to self-reflection? How could you help them be more analytical and more sophisticated in their reflection? On many occasions the plenary adds little value because the depth of thinking is surface or quick. The type of reflection we are talking about here is where pupils are evaluating their approach, their strategies, their efforts, their end product with sophistication which results in some kind of change being made.

Central puzzle

Think alouds

Modelling

What does success look like?

Teach strategies explicitly

Removing barriers

Teach how to plan

Types of praise & reward

Use questions to develop monitoring

Feedback Self-assessment

Use WRAPPERS

Develop self-reflection

Time to talk

Basic ideas and subtle twists to develop metacognition in your subject – thinking about thinking