**Metacognition – Recommendation 5**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | |  | | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | |  | | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  |  |  |  | | --- | --- | --- | --- | |  | |  |  | | --- | --- | | |  | | --- | | **Recommendation 5:  Promote and develop metacognitive talk in the classroom.** | | | |  |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | |  | | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  |  |  |  | | --- | --- | --- | --- | |  | |  |  | | --- | --- | | |  | | --- | | **Metacognitive talk in a Year 4 science lesson** [1]  Year 4 pupils had been constructing branching keys which used yes/no questions to identify animals (see example, below).  However, the pupils had found this harder to do than expected, so the teacher devoted part of the next science lesson to talking about this work.  **Ms Marshall:** How confident do you feel about making keys? Lots of us found this hard to do last time, let’s try to work out what was tricky about making keys. **Calvin:** The questions. **Ms Marshall:** What was tricky about the questions? **Calvin:** Making new ones. **Amelie:** Thinking of a different question each time. **Abdul:** And it had to be a yes/no question. **Janiyah:** And the answer might change. **Ms Marshall:** How might the answer change? **Janiyah:** Because it depends, sometimes the animal might live in the water, sometimes they might go on land. **Elliott:** And you can’t ask someone about their favourite, because everyone has a different favourite. **Ms Marshall:** Oh yes, so we only want the questions to have one answer, and it has to be a yes or a no. Perhaps we need to make a list of questions to help us get started. Questions which will divide the animals in half each time…  After creating a class list of questions, the teacher asked the children to consider how confident they felt and then used this to create mixed groups of three.  They worked in these groups to create branching keys with post-it notes, pausing for a mini-plenary where pupils walked around to look at others’ work. The pupils discussed the features of the questions and keys which worked well, then returned to their own keys to improve them. | | | |  |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | | Teachers asking challenging questions—guiding pupils with oral feedback, prompting dialogue, and scaffolding productive ‘exploratory’ talk where appropriate—is an ideal way to share and develop effective learning. [2]  The teacher in the opening example helps pupils to understand how to construct a branching key—the cognitive strategies needed. She also encourages them to discuss what they found hard, and to think in advance about what could go wrong.  All the time, she is guiding and probing thinking, getting pupils to listen actively and respond. It is the stuff of great teaching, but too often, if we do not name the strategies, such expert development of metacognitive talk can remain implicit and hidden.  Interactions with others are one way to test one’s own metacognitive strategies and knowledge, so both peers and teachers have a role to play here.  As you can see from the example above, classroom talk can build knowledge and understanding. In this example, the pupils share both their awareness of strategies (knowledge of strategies) and of how hard they have found the task in the past (knowledge of tasks).  A number of classroom interventions that aim to develop the quality of classroom talk can also be effective ways of improving and practising learners’ metacognitive skills.  As devised by Robin Alexander, **‘Dialogic teaching’**, [3] for example, emphasises classroom dialogue through which pupils learn to reason, discuss, argue, and explain. ([You can read the findings of the EEF's efficacy trial of Dialogic Teaching here](https://educationendowmentfoundation.us8.list-manage.com/track/click?u=cb569f99caaaedff117cdc74c&id=e052f2c0ff&e=ab6bf9c839).) A key element of the dialogic approach is to encourage a higher quality of teacher talk by going beyond the closed ‘teacher question–pupil response–teacher feedback’ sequence.  Importantly, in this and other successful interventions, dialogue needs to be purposeful and not just conversation, with teachers using questions to elicit further thought.   Common teaching strategies to better organise and structure classroom talk and dialogue include **‘Socratic talk’**, **‘talk partners’**, and **‘debating’** (each strategy having its own clear parameters and rules for responsible dialogue).  Such strategies—provided they are sufficiently challenging, build on firm pupil subject knowledge, are realistic, and suitably guided and supported by the teacher—can help develop self-regulation and metacognition.  We should take care, however, not to focus on dialogue simply as an end in itself without it being wedded to these necessary conditions. | | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  |  |  |  | | --- | --- | --- | --- | |  | |  |  | | --- | --- | | |  | | --- | | **Types of classroom talk**  Professor Robin Alexander’s most recent account of dialogic teaching identifies six basic talk repertoires for effective teaching and learning (talk settings, everyday talk, learning talk, teaching talk, questioning, and extending). Use of the repertoires is guided by five principles or criteria that highlight what is essential to make talk engaging and cognitively productive. For example, talk should be cumulative and purposeful. [4]  The most relevant repertoires for developing metacognitive skills are **learning talk** and **teaching talk**. Learning talk includes narrating, questioning, and discussing; teaching talk includes instruction, exposition, and dialogue.  Alexander observes that all ‘have their place’, [5] but that **discussion** and **dialogue** are both the most potent and the least common and therefore need to be given much greater prominence because they are most likely to open up the ‘learning talk’ and move it beyond the mere giving of closed answers. | | | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | |  | | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | | **Further resources...**   1. Read Bradford Research School's excellent blog on metacognitive talk - **'Metacognition: It's Good to Talk'**. [Just click here](https://educationendowmentfoundation.us8.list-manage.com/track/click?u=cb569f99caaaedff117cdc74c&id=a479039880&e=ab6bf9c839). 2. Read this interesting new research by Julie Smith and Rebecca Mancey on **'Exploring the relationship between metacognition and collaborative talk during group mathematical problem solving'** (2018). [Just click here](https://educationendowmentfoundation.us8.list-manage.com/track/click?u=cb569f99caaaedff117cdc74c&id=f0a9f969cf&e=ab6bf9c839). 3. Watch this helpful short clip of metacognition in action in a US classroom, with pupils discussing 'word study' and metacognitive strategies to plan, monitor and evaluate their word learning. [Just click here](https://educationendowmentfoundation.us8.list-manage.com/track/click?u=cb569f99caaaedff117cdc74c&id=cf8f8b2209&e=ab6bf9c839).   **You can access all the EEF's guidance reports - with clear and actionable recommendations for teachers on a range of high-priority issues - by** [clicking here](https://educationendowmentfoundation.us8.list-manage.com/track/click?u=cb569f99caaaedff117cdc74c&id=cca59a28d5&e=ab6bf9c839)**.** | | |  |  | | --- | |  |  |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | |  | | --- | |  | | |  |  | | --- | |  |  |  | | --- | |  | | |  | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  |  |  | | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | |  | |  | | --- | |  | | |  |  | | --- | |  |  |  | | --- | |  |  |  |  | | --- | --- | | |  | | --- | |  | |  |  | | --- | |  |  |  |  | | --- | --- | | |  | | --- | |  | |  |  | | --- | |  | |