A worked example

Original Task: The Class Teacher reads the story of "Little Red Riding Hood" to the class, stopping when the Wolf is dressed as Grandma. She then asks the class to write a prediction about what will happen next in the story.

Considerations :

- Consider providing the children with a summary of the key parts of the story so far in written or pictorial form.
- Chunk key information for the learners by providing a simple story board of what the wolf did to Grandma.
- The task is to write a prediction. Consider the task design, is the outcome of this lesson to do with writing or predicting? Consider getting the children to record their predictions using recordable devices or having an adult scribe their ideas.
- Provide a worked example of what might happen next in the story.
- Provide further modelling of the task, working alongside learners.
- Provide additional scaffolds when needed, such as providing a selection of pictures that show different possibilities of what happens when the Little Red Riding Hood goes into the house.

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LIMITING COGNITIVE LOAD

A guide for Practitioners

What is it?

Cognitive Load refers to the amount of information that your brain has to process and the effort that your brain has to take when carrying out a task.

Useful websites:

strategiestosupportstudentsworkingmemoryandretention.pdf

A Little More Information

- Cognitive Load Theory is developed by John Sweller. The theory explores how the brain with a limited working memory is further impacted by the type of task, the complexity of the task and the instructions provided alongside of the task.
- There are three types of Cognitive Load:
- Intrinsic Cognitive Load: how difficult the task is both inherently and also by the amount of previous knowledge and expertise the user has.
- Extraneous Cognitive Load: the mental effort resulting from factors such as distracting environment, confusing directions, poor design.
- Germane Cognitive Load: the mental effort involved in processing, organising and storing information into memory.

Everyone's Cognitive Load limit is different dependent upon their age, abilities, prior knowledge and nature of the task given. When Cognitive Load is not managed effectively a learner can experience 'Cognitive Overload' resulting in fatigue, concentration lapses, memory lapses, dysregulation and inability to take on any further learning.

How to limit Cognitive Load

Begin by cutting the Extraneous Cognitive Load. This can be achieved by:

- Consider the learning environment. Reduce distractions, background noise and other sensory sensitivities.
- Reduce the amount of information presented to the learner, so that Cognitive Load is not being used up on identifying relevant information and disregarding irrelevant information.
- Consider the task design. Are learners having to problem solve and do additional tasks which are not related to the learning goal?

- Provide a clear model for the task at hand. This could be achieved by providing a finished model for the learner to reference or by providing step by step clear instructions on how to complete a task.
- Chunk information provided by breaking it down into smaller pieces or using pictures and symbols to clearly demonstrate meaning.
- Allow time for learners to process information given to them.
- Put all of the information a learner needs in one place, reducing the need to look between different sources of information.
- Provide further modelling if needed. Following an "I do, we do, you do" model, extend the "we do" section so that you work alongside the learner further modelling the task.
- Provide transient information in a written or pictorial form so that they do not have to hold this information in their working memory.

Use scaffolds to support a learner during tasks and as they become more proficient and skilled at a task, gradually remove these.