

# Cognitive Science: Research Priorities

These research questions, to guide future research into the cognitive sciences, were developed from the Chartered College of Teaching's first research priority setting activity.

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How are different cognitive science strategies best combined and integrated into learning sequences at the micro and macro level?

How can teachers effectively adapt strategies as students move along the novice to expert continuum in their learning?

What are the most effective approaches to developing teachers' knowledge of strategies and their application in the classroom?

How do different strategies interact with each other and other teaching strategies during the learning process?



How can teachers develop students' agency in applying strategies to their independent learning?

**What is the optimal balance between fidelity to original research designs and teacher expertise in the context-specific application of strategies?**

What are the most effective and informative approaches to measuring the impact of different strategies?

How are cognitive science strategies best implemented to ensure a balance between appropriate cognitive load and challenge?

What are the most effective approaches to improving teachers' attitudes towards using strategies in the classroom?

How does the use of cognitive science strategies impact students' motivation?

**What does effective implementation of different strategies look like across different phases, subjects and student groups?**



What is the optimal balance between the learning of new content and revisiting of past learning?

How can strategies support the retrieval and application of complex information, for example in literature or history teaching?

To what extent does students' understanding of cognitive science strategies impact outcomes?

What is the optimal frequency of different cognitive science strategies for best outcomes?