

# The Learning Memory: Cognitive and Metacognitive Science Series



**PRESENTED BY**  
**Dylan Wiliam**



## SERIES SESSIONS

Date	Time
October 07, 2022	1:00 PM - 2:30 PM
October 24, 2022	3:30 PM - 4:30 PM
November 30, 2022	3:45 PM - 5:00 PM



**LOCATION**  
**Virtual - Online**

## FEE

**\$50.00**

## QUESTIONS?

**Contact Us:**  
[nrlc@arpc.ab.ca](mailto:nrlc@arpc.ab.ca)  
[780-882-7988](tel:780-882-7988)

## REGISTER ONLINE

**Visit our website to register:**  
[nrlc.net](http://nrlc.net)

## Program

### SESSION ONE: Learning and memory

For many years, most teacher education programmes included substantial coverage of theories on the psychology of education. However, many pre-service teachers did not find these courses helpful, since they offered little more than bland platitudes, or, at the other extreme, provided findings that worked in laboratories, but were difficult or impossible to implement in real classrooms. As a result, many teacher preparation programmes now contain little in the way of educational psychology, which is unfortunate, because over the last thirty years or so, cognitive science has produced deep insights into how humans learn.

Dylan will introduce participants to the latest findings from cognitive science about how we learn, and the kinds of things we can do to help our students remember what they are taught for longer. Participants will learn why it is that students can be intensively and successfully engaged in worthwhile tasks and yet learn little as a result, and why forgetting is essential to remembering

They will leave with a variety of strategies for improving learning in their classrooms that can be immediately, and widely, applied.

\*Please note: At the end of session one, HPSD lead, Julia Drefs, along with Dylan Williams will engage the participants in a conversation of further learning needs to determine the content area for the session 2 pre-recorded learning

## **ASYNCHRONOUS SESSION TWO:**

\*Please note, the content of the 2nd session of this series may be altered based on the needs/feedback offered by participants at the end of session one.

### **Cognitive Load Theory**

Recent research on how learning takes place has shown that when a student's cognitive resources are completely occupied in the completion of an instructional task, the student can successfully complete the task, but not learn what the task was designed to teach them. Cognitive Load Theory provides a proven and practical framework that helps teachers design instruction that minimizes irrelevant cognitive load, and thus maximizes the chances that successful completion of instructional tasks leads to long-term learning. In this presentation, participants will learn about the main ideas of Cognitive Load Theory, together with some of the key findings that can be used to strengthen instruction, such as the expertise reversal effect, the split-attention effect, the goal free effect, and the element interactivity effect.

## **SESSION THREE: Metacognition**

The term "metacognition" was first suggested by American psychologist John Flavell to describe the knowledge that individuals have about their own cognitive processes and products or anything related to them. In other words, metacognition is really just "thinking about thinking", and there is increasing evidence that the systematic training of students in the use of metacognitive strategies improves their academic achievement, as well as confidence and motivation. In this session, Dylan will present a number of practical techniques that teachers can use to help their students become more aware of their own cognitive processes, and the become more active in managing their own learning.

---

## **Presenters**

### **Dylan Wiliam**

Dylan Wiliam is Emeritus Professor of Educational Assessment at University College London. After a first degree in mathematics and physics, and one year teaching in a private school, he taught in inner-city schools in London for seven years.

In 1984 he joined Chelsea College, University of London, which later merged with King's College London. From 1996 to 2001 he was the Dean of the School of Education at King's, and from 2001 to 2003, Assistant Principal of the College. In 2003 he moved to the USA, as Senior Research Director at the Educational Testing Service in Princeton, NJ. From 2006 to 2010 he was Deputy Director of the Institute of Education, University of London.

Over the last 15 years, his academic work has focused on the use of assessment to support learning (sometimes called formative assessment). He now works with groups of teachers all over the world on developing formative assessment practices.

