

**Citation:**

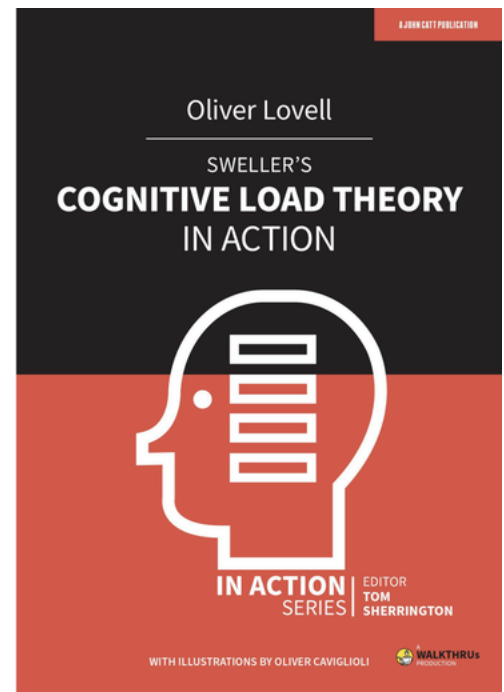
Lovell, O. (2020). *Sweller's Cognitive Load Theory in Action*. John Catt Educational Ltd. Melton, Woodbridge, UK

**Abstract:**

What is it that enables students to learn from some classroom activities, yet leaves them totally confused by others?

Although we can't see directly into students' minds, we do have Cognitive Load Theory, and this is the next best thing. Built on the foundation of all learning, the human memory system, Cognitive Load Theory details the exact actions that teachers can take to maximise student outcomes.

Written under the guidance of, and thoroughly reviewed by, the originator of CLT, John Sweller, this practical guide summarises over 30 years of research in this field into clear and easily understandable terms. This book features both a thorough discussion of the core principles of CLT and a wide array of classroom-ready strategies to apply it to art, music, history, chemistry, PE, mathematics, computer science, economics, biology, and more.

**Table of Contents****Introduction: Why is Cognitive Load Theory Important for Teachers**

- How to read this book

**Part I: The A, B, C, D, E of CLT**

- Architecture: The cognitive architecture of human memory
- Biology: biological primary versus biologically secondary information
- Categorisation: categorisation of intrinsic and extraneous load
- Domains: domain-general versus domain-specific knowledge and skills
- Elements: element interactivity, the source of cognitive load
- Summarising the ABCDE of CLT

**Part II: Optimise Intrinsic Load**

- When to Optimise intrinsic load
- How to optimise intrinsic load
  - Pre-teaching
  - Segmentation
  - Sequencing and combination
  - The expertise-reversal effect

**Part III: How to Reduce Extraneous Load**

- When to reduce extraneous
- Hone the presentation
  - Redundancy

- Split-attention
- Transient information
- Modality
- Structure the practice
  - Worked examples
  - Self-explanation
  - The goal-free effect

**Conclusions: Cognitive Load Theory: Where To From Here?**