



FACULTY OF ARTS

Adelaide Summer Research Scholarship 2020-2021

How is Cognitive Load Theory Applied in Education Courses?

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School of Education

This project will involve the analysis of School of Education courses to examine if and how cognitive load theory (CLT) is applied in the teaching materials and delivery of content. There will be at least 10 unique courses to analyse over a period of 6 weeks. We are not looking only for explicit application of CLT but also how experienced lecturers build in appropriate cognitive tasks and load into their work. The student will examine the courses and compare it with the theory they research.

The overall goal of the project is to help improve learning outcomes for students by ensuring the delivery of course materials and learning tasks is supported by theory.

We anticipate a publication in a high-quality journal such as Asia-Pacific Journal of Teacher Education as an outcome with the student as co-author.

Research Tasks

- Research the literature on cognitive load theory
- Analyse courses to investigate how CLT manifests itself in courses, comparing those designed by practitioners of the theory to those who do not.
- Prepare a draft paper for submission to a journal

Cognitive Load Theory is based on a model of human information processing. It describes the process as having three main parts: sensory memory, working memory and long-term memory and helps “provide guidelines intended to assist in the presentation of information in a manner that encourages learner activities that optimize intellectual performance” (Sweller 1998).

Whilst this is an education focussed project, we welcome applications from all students.

The student will gain the following research skills and experience;

- Publication in high-quality journal
- Work on a draft co-publication as an equal author
- Collate background information for a competitive grant application
- Work on an existing competitive grant
- Understand CL theory as researched and how it can be realised in an educational setting

- Hone basic research skills and paper writing