



FACULTY OF ARTS

Adelaide Summer Research Scholarship 2019-2020

Investigating gesture in STEM learning: An evidence based approach

Supervisor: Dr Brendan Bentley

School of Education

STEM Education has continued to be highly topical within the broader educational community. More recently questions have been raised about the pedagogies used in classroom instruction, in particular, the use of gesture to instruct student learning.

The project's aim is to investigate the use of gesture in a classroom setting within the field of STEM education.

The first component of the project will comprise of a comprehensive literature review investigating the terms gesture and STEM Education practices. This information will be used to inform the second component of the project.

The second component of the project will consist of a small pilot study investigating with one school the impact gesturing has on a student. The study will be a 3 x 2 quantitative research model using a control and intervention group. The data collected from the school and the results from the literature review will be used to create a series of recommendations and suggestions to improve the teaching and learning of STEM Education.

The scholarship holder would be mentored and supported by the academic team. The research is intended for publication and it is anticipated that the undergraduate researcher would participate in all aspects of the research and authoring process from the initial research stage to writing the research article and would be considered a co-author.

The student will gain the following research skills and experience;

- Publication in a high-quality journal
- Co-publication with Project Supervisor
- Develop high-level research skills, both discipline-specific and generic;
 - Data base searches
 - Collating information
 - Developing a logical narrative to answer the research question
 - Develop literature review