



# The STEPS Project July 2013

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## 1 Progress against specified outcomes and deliverables

The project has been called *Science Teacher Education Partnerships with Schools (STEPS) Project*.

The project outcomes are:

1. A synthesis of the variety of teaching and reflective practices and informing theories used in school-based science teacher education programs.
2. Documentation of exemplars of innovative pedagogies that represent the range of contexts, constraints and affordances that lead to quality student outcomes.
3. Creation of an interpretive framework informed by contemporary practice that can guide improvement of science teacher education programs.
4. Determination of sustainable methods for establishing and maintaining effective school-university partnerships generalisable across a range of contexts.
5. Facilitate uptake of innovative school-based practices within the sector for the purpose of improving the educational outcomes of science teacher education programs, and teacher education programs generally.

Project deliverables are:

1. Interpretive framework, including *principles* relating to establishing and managing partnership arrangements, critical success factors, and frameworks designed to enhance critical reflective practice
2. Case studies
3. Project website, with publicly available *database and annotated bibliography*
4. Newsletters and publications

Outcome 1 and 2 are well underway, with much information gathered and some analysis leading to preliminary findings. The first outcome was facilitated by a Project retreat in Month 2 where the focus was on sharing practice and developing a framework for developing the case studies of our practice. These initial case studies are mostly developed and cross case analysis has started. The second outcome relates to building detailed accounts of each model or practice, and much of this data gathering has been completed through analysis of our practice in first semester/trimester this year. Some of the results of this data was presented at ASERA Conference in New Zealand in July this year. Outcome 2 also relates to other uses of these practices beyond the project members, and this is underway with a completed annotated bibliography and a developing database. In relation to



Outcome 3, preliminary ideas informing the interpretive framework were presented at ASERA Conference. Draft 1 of the interpretive framework will take place at a Project meeting in August. To date, work has been carried out that lays a strong basis for achieving the last three outcomes through the gathering of information, beginning conversations with other teacher educators and promotion of a project-related ASERA pre-conference workshop to be held in 2014. A project website is under construction, and can be located at <http://stepsproject.org.au/>

## 2 Review of Progress

### 2.1 Major achievements against schedule/ project brief

<b>1 Share practice within team</b>	
Ethics	Ethics cleared, allowed research within schools
Retreat	Retreat held, resulting in a shared vision for the project, direction for the methodology for analysis of our practices, preliminary ideas informing Interpretive Framework, structure for case studies. All project members contributed to the discussions and each management discussions around their respective tasks.
Case study d'ment	First outline of case study provided by almost all project sites.
Team meeting	Held monthly or bi-monthly via phone. Project leader meeting with reference group held once.
<b>2 Annotated bibliography &amp; database</b>	
Literature search	Initial literature searched. Some further searching still to be undertaken
Database, bibliog'y	Database currently under construction. Bibliography phase 1 completed (first wave of literature search).
Website development	Under construction. We presence now established.
<b>3 Analyse current team practice</b>	
Interview & survey key stakeholders	Underway
Video practice	Underway
Transcription & Analysis	Underway
Website development	Underway
Case study d'ment	Underway

### 2.2 Lessons learnt

- Discussions with schools are proving to be valuable in understanding the nature of the relationships and perceived impact on the schools.
- Working as a team has meant that we can trust that different aspects of the project can be completed concurrently.
- Meeting often to discuss progress has been important
- The project manager has been an important central figure
- The presentation at ASERA has shown that the teacher education sector is keen to hear more about our approach. Further discussions have shown that there is value in talking to educators who undertake similar practices, or are interested in trying it but are under prohibiting constraints. Understanding this now will mean that we can



focus on those institutional (university) and systemic (education sector more generally) elements that might enable such practices to be implemented.

### 2.3 *Challenges met*

Gaining ethics approval from the Victoria Department of Education and Early Childhood Development delayed the data collection process at schools. Ethics clearance took 2 weeks longer than expected.

### 2.4 *Indicate if and how these challenges will have an impact on the outcomes, the timeline or the budget?*

The delay in ethics approval led to an alteration of the data collection processes, including no video data generated in the first wave of data, and limited collection of photos by teachers, which required a modification to the interview procedure. A second wave of data may take place in the coming twelve months.

## 3. Formative Evaluation

### 3.1 *What formative evaluation processes are being used?*

An external evaluator was appointed at the beginning of the project and was invited to participate in the team's initial residential planning retreat. During the retreat, an evaluation plan for the project was discussed and accepted. A key element of the plan is interactive evaluation of the project's implementation, enabling the evaluator to observe and document project processes and emerging outcomes, and in turn provide formative feedback to the team as input for its ongoing decision-making.

In carrying out this role, the evaluator has acted as a critical friend, having access to project team deliberations via telephone contact during meetings and access to meeting minutes, monitoring progress, raising questions and providing feedback. Team meeting agendas have also been structured to facilitate a team formative evaluation approach, with key components of the project being itemized for review in terms of current progress, influencing factors and options for ongoing action.

### 3.2 *What have you learnt from these processes thus far?*

- A reinforcement of the need to use data specifically to address project outcomes and research questions;
- The complexity of working with multiple data collection sites and school systems;
- The complexity and constraints of working within university systems and processes;
- The importance of being flexible enough to modify the plan in response to constraints and unexpected time delays, for example, ethics approval processes;



- The value of having a designated project manager to handle logistical matters; and
- The value of team members taking on specialised roles and being able to report on these to the team, and of being able to use specialist research assistants.