

Designing online learning through productive talk
A research project funded by Collier Charitable Fund
HREC Approval Number: H14757

Research team

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1 Brief outline

This project aims to build teacher competence and enhance student learning in online environments. With a participatory action research design, it involves the collaboration of university researchers and ‘teacher-researchers’ from primary schools in Sydney. Connecting the quality of learning and the quality of classroom talk, the project guides teachers in designing for educationally productive learning interactions using online learning environments available to them and provides a case-based analysis of the evolving practices. The qualitative analysis draws on data self-collected by the teachers (classroom observations, students’ work, lesson plans, etc.), teachers’ reflections, university researchers’ meeting notes, and teacher-interviews. To communicate the project findings to a wider professional audience, an open-source knowledge centre – Dialogic Teaching Hub – is developed with best practice illustrative examples. Ultimately, the project strengthens the convergence of educational theory and practice, with fresh understandings of the benefits of talk-oriented (dialogic) teaching in online learning environments.

2 Extended outline

Overview of aims

COVID-19 accelerated the uptake of online learning in education. Teachers and students have experienced firsthand the ubiquitous influence and benefits of online learning. Through funding received from Collier Charitable Fund the project supports primary school teachers’ professional development in the COVID-19 turn by enhancing their practices in online learning environments, with a specific focus on promoting educationally productive talk. By designing online learning through productive talk, this project expands teachers’ capacities to deepen students’ online learning and develops teachers’ professional knowledge. Our project aims to develop and disseminate best practices of designing quality online learning, in response to the following demands:

Expanding roles of teachers

The complexity of online teaching-learning platforms demands teachers’ adaptiveness and increased competence in integrating technology into teaching and learning.

Prioritising productive talk in online learning environments

The dialogic teaching model is a proven approach that empowers teachers to diagnose needs, design learning activities, monitor and assess students’ learning progress through productive classroom talk. Research has evidenced the power of classroom talk for enhancing students’ engagement and deep learning (Alexander, 2020). Further professional development opportunities are needed to apply this model for online learning in local contexts.

Developing a participatory professional learning culture

The existing repertoire of centralised teaching and learning resources requires urgent updating for quality teaching in online environments. It is vital that evolving exemplary practices are shared across the professional learning circles. New online professional communities are essential to engage teachers in emergent cultures of learning that are more participatory, networked and interest-based.

Research participation

The selection will be based on voluntary participation of primary schools. These schools must be interested in working collaboratively with the research team to enhance their online teaching and professional development. Schools will self-nominate participating teachers who have strong interest in working collaboratively with the research team to achieve the aims and objectives of the project. The two self-nominated teachers from each school are expected to collaborate as critical friends.

Our Participatory Action Research plan will be tailored to the needs and availabilities of each school. Our intention is to fund the involvement of six teachers (at three schools) in this project, for the duration of two terms. However, we understand that teacher/school participation for the duration of two terms may not be practicable. Therefore, alternative arrangements (e.g. involvement in one action research cycle only) can be made without impacting on the goals and outcomes of the project. This would simply decrease the action research cycles, and increase the number of schools and teachers we can involve.

If available for two school terms + initial orientation and dissemination:

Through **two cycles** of design-implementation-reflection-evaluation **spanning 2 terms**, the teachers will be involved in the following activities with the research team:

- Participate in a full day professional development workshop;
- conduct a needs analysis and develop action plans for improving and evaluating their practices;
- co-design two units of work per teacher to be implemented, with one unit of work per semester;
- collaborate with their critical friends in the ongoing review and action research of their practices and
- contribute to the development of a new repository (the Dialogic Teaching Hub).

If available for one school term + initial orientation and dissemination:

Through **one cycle** of design-implementation-reflection-evaluation **spanning 1 full term**, the teachers will be involved in the following activities with the research team:

- Participate in a full day professional development workshop;
- conduct a needs analysis and develop action plans for improving and evaluating their practices;
- co-design one unit of work per teacher to be implemented during one semester;
- collaborate with their critical friends in the ongoing review and action research of their practices and
- contribute to the development of a new repository (the Dialogic Teaching Hub).

Professional development

The project has direct value for teacher-professional development as follows:

- The participating teachers will identify and map their further professional development goals.
- The participating schools will strengthen their professional learning network whereby the participating teachers serve as mentors to their colleagues.
- The broader community of educators will benefit from the resources developed for the Dialogic Teaching Hub.

Future value of the project for participating schools and wider education sector

- Continued use of the Dialogic Teaching Hub for teacher professional development within the participating schools.
- Wider dissemination and sharing of the Dialogic Teaching Hub as open access electronic resource (e.g. through Western Sydney University's Center for Educational Research website as outreach to schools).
- Expansion of the Dialogic Teaching Hub through a bigger project grant, aimed at a deeper understanding of the nature and value of dialogicality in more diverse curricular areas, and in more diverse school settings. The resources are replicable and instrumental for scaling and sustaining improvements in the quality of teaching across cultural, linguistic, socio-economic, geographic diversities in NSW and nationally. We plan to expand this initiative and submit a research proposal to seek funding from the New South Wales Department of Education and Training (e.g. Education Strategic Research Fund).
- Dissemination through professional article (Australian Council of Education Research's Teacher Magazine) and peer-reviewed academic journals ('Teaching and Teacher Education').

Appendix 1 – Practical details and proposed timeline of teacher involvement

PAR is a specific form of action research where teacher-participants act as key partners in an inquiry process that has strong relevance to them and is transformative to their practices. The key goal is to create a learning solution that is relevant to the research context, and informed by the merging of theory and professional self-reflection.

The teachers will self-nominate to participate in the project as teacher-researchers. The two self-nominated teachers from each school will form a focus-pair and will collaborate as critical friends. Each focus-pair of teacher-researchers will be involved as follows, **with maximum 8 full release days covering their research participation**:

1) Orientation (on school site, one hour)

The teacher researchers will be asked to attend an initial one-hour orientation meeting at their school. The university researchers will brief them about the project, timeline, milestones, outcomes, deliverables and their involvements.

2) Professional development workshop (WSU's Bankstown City Campus, 1 release day)

Teachers will participate in a full day professional development workshop on i) action research ii) educational technology and iii) teaching through dialogue. This will also include the initial needs analysis and initial action planning for improving and evaluating their practices.

3) Participatory action research (on school site, up to 5-6 release days)

Teachers work in focus pairs on school-site, university researchers visit face-to-face or join focus pairs via zoom. Through two cycles of design-implementation-reflection-evaluation of the dialogic teaching model for online learning, the teachers will be involved in the following activities:

- Complete the **needs analysis** and develop **action plans** for improving and evaluating their practices;
- **co-design two units of work** per teacher to be implemented during **two school terms** (one per school term)
- **Collect data**
 - Self-recording of observational data using equipment available at the school, to capture classroom conversations (e.g. zoom-based or video-based recordings of classroom interaction); recordings of 4-8 45-60 minute lessons per unit of work;
 - collection of textual data in digital form (e.g. photocopies/screenshots of students' work; lesson plans, outline of the units of work, other online resources).
- **Share collected data** with Research Assistant(s), to be stored in a sharable platform e.g. Cloudstor.
- collaborate with their critical friends in the ongoing review and action research of their practices
- Participate in full-day **collaborative review** with the university researchers at the end of each cycle. Teachers will work in focus pairs on school site, university researchers may be invited to visit on the day or join focus pairs via zoom.
- Participate in **three zoom-interviews** with the university researchers (at the beginning of Action Research Cycle 1, at the beginning of Action Research Cycle 2 and at the end of Action Research Cycle 3)

4) Dialogic teaching hub (up to 2 release days)

Teachers will be invited to contribute to the **development of a new repository** (the Dialogic Teaching Hub)

- Story boarding meeting for whole teaching team, at WSU Bankstown City Campus = 1 full day
- Individual 'case-review day' with each focus-pair (2 cases per focus-pair) to review and refine each of the six illustrative cases for the Hub (on school sites) = 1 full day

The university researchers will support focus-pairs in every phase of the two cycles, acting as mentors and critical friends. This will be primarily managed through Zoom, and will involve both structured support (via guided planning and collaborative review days) and mentoring on an ad hoc basis.