

Early Learning in Science, Technology, Engineering and Mathematics, Australia (ELSA) F–2

Information Package – Principals

Dear Principal,

Your school has expressed interest in being involved in ELSA F–2 and has been selected as one of 240 schools across Australia that will be actively involved in the program.

The Early Learning STEM Australia F–2 Program (ELSA F–2 Program) is being run by the [STEM Education Research Centre \(SERC\)](#) at the University of Canberra (UC) with funding provided by the Australian Government Department of Education (DE).

The ELSA F–2 Program seeks to increase the participation of Australian children in STEM education and improve their digital literacy. It will provide an opportunity for young children to explore an online, play-based learning environment, delivered through a series of digital tools that are rich in STEM concepts. It will also include classroom activities to support the children’s learning. The program will be delivered to children in the F–2 years of schooling and will run during 2024.

The mission of the ELSA F–2 Program is science, technology, engineering and mathematics (STEM) for all children across the first three years of formal schooling. Our philosophy is that learning programs should be authentically accessible for all children, including those in vulnerable, geographically isolated, and non-traditional-learning communities—who have often been excluded from STEM education opportunities.

The intended outcomes of the Program include:

- developing and disseminating innovative, high-quality online Australian-Curriculum-aligned STEM resources and support materials for school educators
- providing a high-quality experience for users, incorporating contemporary pedagogies
- strengthening the STEM capabilities of Foundation to Year 2 teachers and supporting school leaders, students, and families
- ensuring widespread awareness and uptake of the resources and associated pedagogical approaches in schools across Australia
- ensuring the resources meet school communities’ needs by continuous monitoring
- strengthening students’ STEM skills
- supporting all young people to become more STEM-capable.

The ELSA F–2 Program builds on the successful ELSA preschool program and aims to enhance children’s STEM-literacy in ways that connect their play experiences to their ways of knowing, their teachers’, and their families’ out-of-school engagement. The work in developing and implementing resource materials, learning tools for

children, educators and families, and professional learning for educators, will be informed by the principles, practices and outcomes of the Australian Curriculum (in its state and territory interpretations) as well as the *Early Years Learning Framework for Australia (EYLF)*.

Purpose of this note and form

The SERC team now seeks your consent for your school to be involved in the ELSA F–2 Program and research project.

The program involves *teachers* committing up to 2 hours per week to:

- undertake online professional learning (e.g., live webinars and pre-recorded videos, five hours total spread over the term)
- depending on condition, implement a 20-week program (up to 1-2 hours per week) using: (a) the ELSA F-2 digital tools (b) the teacher’s business-as-usual classroom activities, or (c) the ELSA F–2 Program with digital tools and classroom activities for students
- respond to surveys before and after implementing the program (pre- and post-test, approximately 15 min to complete)
- send us four personal reflections during the course of the program (approximately 15 min to complete)

The total time investment from teachers over the 20-week program will be approximately 40 hours.

Such involvement may involve *students* committing up to 2 hours per week to engage in the 20-week program implemented by their educator (see above). To note, the digital tools portion of the ELSA digital cohort and ELSA F-2 Program cohort are designed to take up to 30 minutes per week.

The total time investment from students over the 20-week program will be approximately 30 hours, including their time spent engaging with the learning program and completing pre- and post-test (30 minutes each).

Data collection and ethics

As part of the ELSA F-2 program, de-identified data will be collected for evaluation purposes (e.g., how we can improve aspects of the ELSA F-2 program). Any information you share with SERC will be de-identified so that it will be impossible for anyone to identify you or your school.

The SERC research team (who have developed the ELSA F-2 program) are also interested in analysing this de-identified data for research purposes (e.g. publishing an article in an academic journal or conference presentations). To conduct research, ethical approval is required from our institution, the University of Canberra, as well as respective jurisdictions. Ethical approval has been obtained from the University of Canberra to conduct research (see note below), and is currently being processed within your local jurisdictional board.

With the current processing times, ethical approval from your jurisdiction is anticipated prior to implementing the ELSA F-2 program. However, if there are any unexpected delays in processing times, and we do not receive ethical approval, we can still run the ELSA F-2 program and collect data for evaluation purposes. In this scenario, we will explain this in our consent form to families and assent forms for students, and ask if the SERC research team can

access their de-identified data for research purposes at a later date, only if local jurisdiction ethical approval for the research aspect has been finalised.

Please note, any evaluations or future academic publications that draw on ELSA F–2 data will not use any information that could identify a person, school, or state/territory.

Sign attached form

If you are happy for your school to be involved in the ELSA F–2 Program in the ways outlined, could you **please sign the attached form** and return it to Emma Simpson (ELSA Administration Officer) via email emma.simpson@canberra.edu.au.

I do hope that you will join in the ELSA F–2 Program. Please do not hesitate to contact me if there are any questions about the ELSA F–2 Program or research project.

Professor Tom Lowrie

NOTE: This project has ethical clearance from University of Canberra (12127). Any queries about the project should be directed to Emma Simpson at emma.simpson@canberra.edu.au or telephone 1800 512 225.

If you have any concerns about the ethical conduct of the project you may also contact the Secretary, University of Canberra Human Research Ethics Committee, telephone 02 6201 5220 or email humanethicscommittee@canberra.edu.au.

Any issues you raise will be treated in confidence and investigated fully and you will be informed of the outcome.

Consent form: Principals

Please read this form carefully and fill out the sections below.

Privacy: How the ELSA F–2 Program will collect, store and use data

- Your personal information is protected by law, including the *Privacy Act 1988*, and is collected by the University of Canberra for the purpose of running the ELSA F–2 Program.
- The University of Canberra will collect and use the personal information of principals for the specific use of running the ELSA F–2 Program only. The personal information collected will include your name, signature and place of employment.
- All data collected as part of the program will be:
 - stored on secure servers in Australia (no personal information is being sent overseas); and
 - de-identified (removing names) before being used in reports (or future academic papers).
- De-identified data may be used and disclosed by the University of Canberra to the Department of Education (DE), an external evaluator of the ELSA F–2 Program, and the ELSA F–2 digital developers – including Mode Games and Anomaly Software – for the purpose of delivering and evaluating the ELSA F–2 Program only. The University of Canberra are also applying for ethics approval with your local jurisdiction to examine this de-identified data for research purposes in the future.
- No names or other identifying material collected as part of the ELSA F–2 Program will be used in publications or for publicity without further consent from you.
- You can get more information about the way in which the University of Canberra will manage data, including requesting a copy of our privacy policy, by emailing elsa.schools@canberra.edu.au

Consent – Participation

- I have read and understand the information about the ELSA F–2 Program which is contained in the accompanying Information Statement.
- I have been able to clarify any questions I had about the program and my participation in it.
- I understand that I am free to withdraw my school from the research at any time, and that if I do, I will not be subjected to any penalty or discriminatory treatment.
- I understand that any information or personal details gathered in the course of this program about my school are confidential and that neither names or any other identifying information will be used or published without my further consent.

Principal's Consent for Participation

I, _____ (Principal's name) agree for my school to be involved in the activities outlined in the Information Statement provided.

Signature: _____ Date: _____

School name: _____

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Provider Number [CRICOS]: 00212K



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