

ALURE Project

Implementer's Checklist - Motivation and Value



What is an ALURE?

An ALURE is an Authentic Large-scale Undergraduate Research Experience. An ALURE offers the opportunity for large numbers of students to engage in an authentic research project within the curriculum. Authenticity is central to the ALURE experience and is achieved by providing students with the opportunity to think and act as they would in the real world, perhaps through designing their own research questions, contributing to a larger research project, or producing assessment items of an authentic nature. The research question itself underpins the ALURE. In an ALURE students are often working in groups. They work on a real project with an unknown answer.

How to use this checklist?

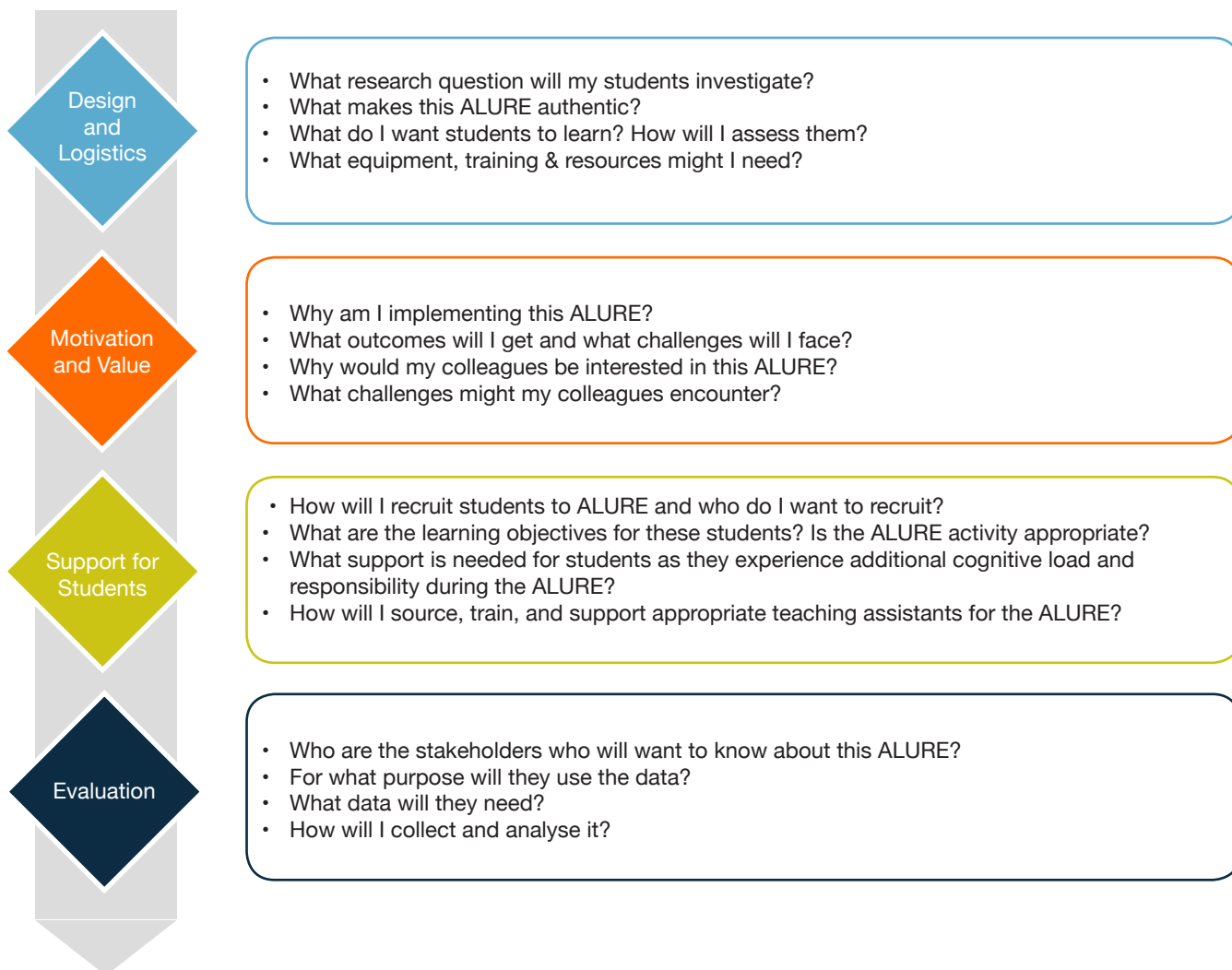
In total there are four Implementers Checklists designed to assist you to design, implement and evaluate an effective ALURE for your students, in your context. The checklists

are structured around four elements key to a successful and sustainable ALURE:

- Design and Logistics: how to design an ALURE and some logistics to consider.
- Motivation and Value: why you want to run an ALURE and possible advantages.
- Student Support: how best to support your students to succeed with their ALURE
- Evaluation: why you should evaluate and some tools to consider.

Each checklist is an active and engaging document, designed to prompt you to think, reflect, write and plan. The checklists have been developed following interviews with successful ALURE implementers and are an evidence-based outcome of an Office of Learning and Teaching (OLT) research project.

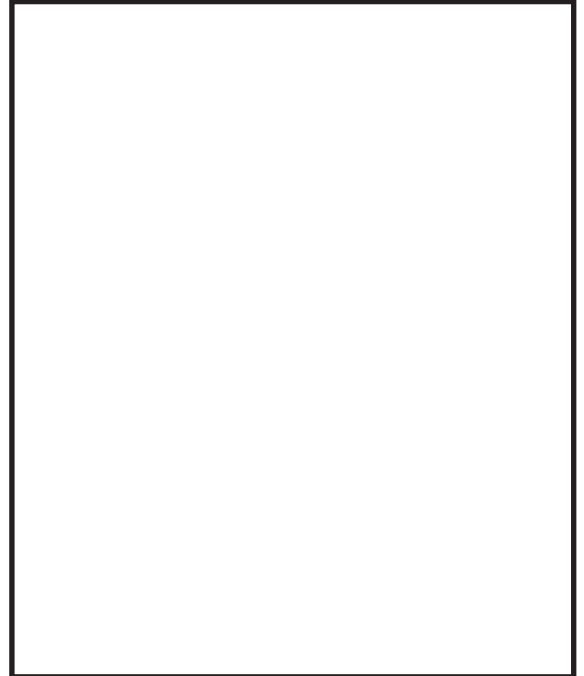
The following “Implementers Checklists” are available:



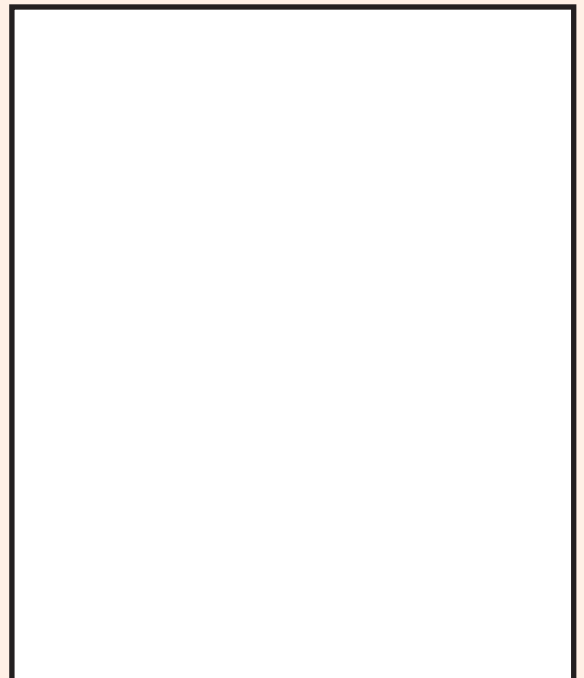
Implementer

For me, this ALURE is:

- a high-impact way to engage students in research and problem-solving
- a mechanism to better understand the gaps in student knowledge and skills
- a contribution to the development of my personal academic portfolio
- a project I can use to access funds through Teaching and Learning Grants
- a research stream with the potential to generate publications in Scholarship of Teaching and Learning (SoTL)
- a way to expose a wide range of students to the research experience



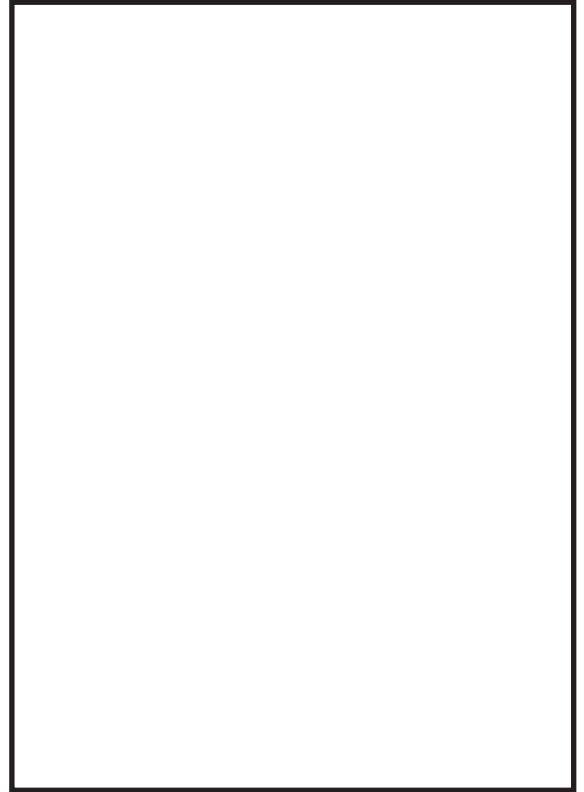
- a curriculum change that will require negotiation and discussion with multiple parties (e.g., fellow academics, technical support staff, and laboratory budget holders)
- a teaching activity that (i) will require more “just-in-time” support for students, and (ii) will provide opportunities for more meaningful interaction with students. (The “more” in these statements is gauged in comparison with “standard” undergraduate laboratory experiences)
- a challenge that may require upskilling of staff (e.g., one or more laboratory teaching associates and laboratory support staff)



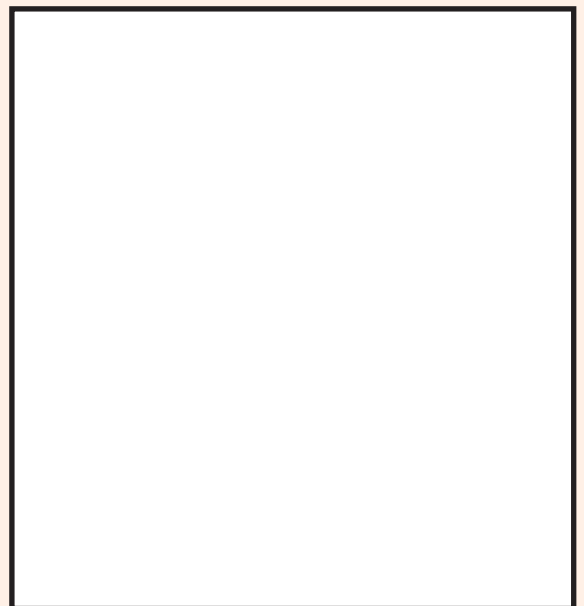
Colleagues

For my colleagues, this ALURE is:

- an opportunity to showcase their research field to large student cohorts
- a way to design a module that feeds directly into their own work
- a contribution to the development of their personal academic portfolios
- a project they can use to access funds through Teaching and Learning Grants
- a collaborative research stream with the potential to generate publications in Scholarship of Teaching and Learning (SoTL)
- a way to encourage and unearth “nontraditional” students who can enrich the local and global research community
- a mechanism to develop students who are better prepared for entering the research environment



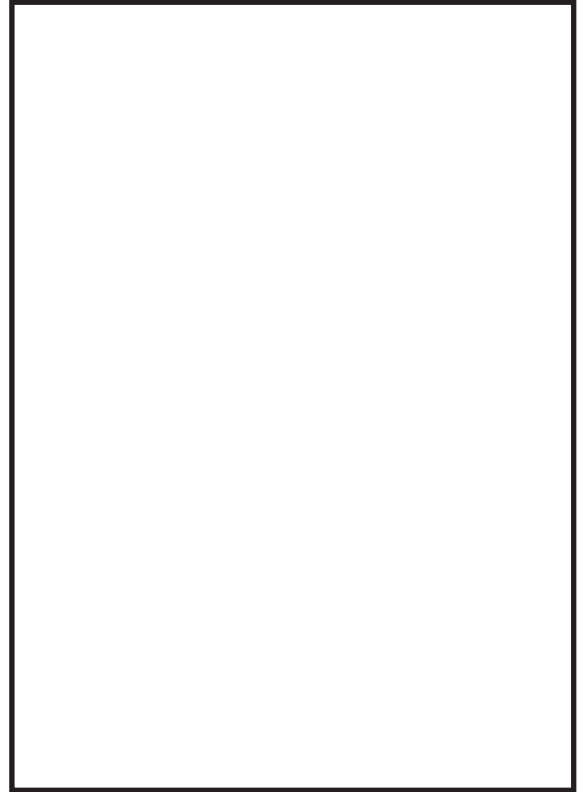
- a teaching activity that changes the relationship between student and academic (see notes above about support for and interaction with students)
- a development that may require a tradeoff between the stated technical skill and content aims of the curriculum and the learning value of repetition, decisions, and open time to think and discuss.



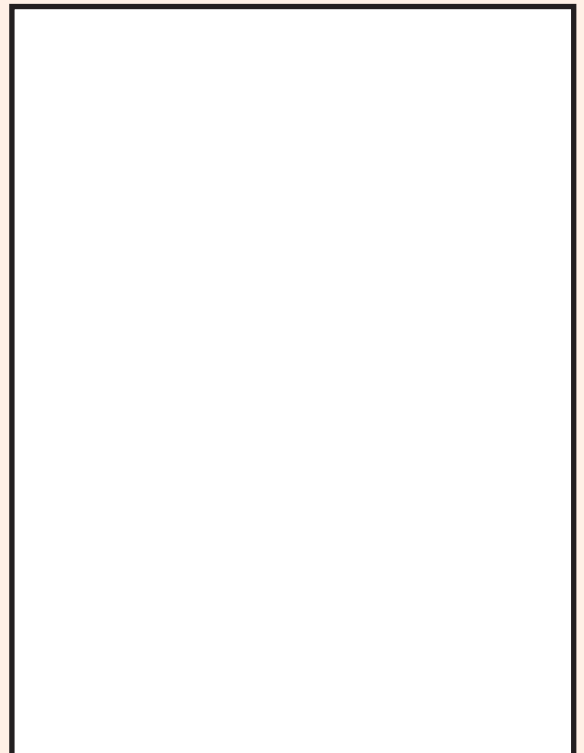
Students

For my students, this ALURE is:

- a way to get direct exposure to research within the scaffolded and supported environment of their undergraduate coursework
- an opportunity to contribute to and communicate authentic research as part of a real-world project
- a way to meet and be mentored (with varying intensity) by professional scientists and other students in the laboratory
- a way to develop research, problemsolving, collaboration, and communication skills
- an activity in which they can test whether they (i) enjoy research and (ii) are confident enough to pursue a more independent URE project
- an activity they can use as evidence of their engagement and ability - potential supervisors, administrators in higherdegree programs, and employers may all be interested in a student's ALURE participation



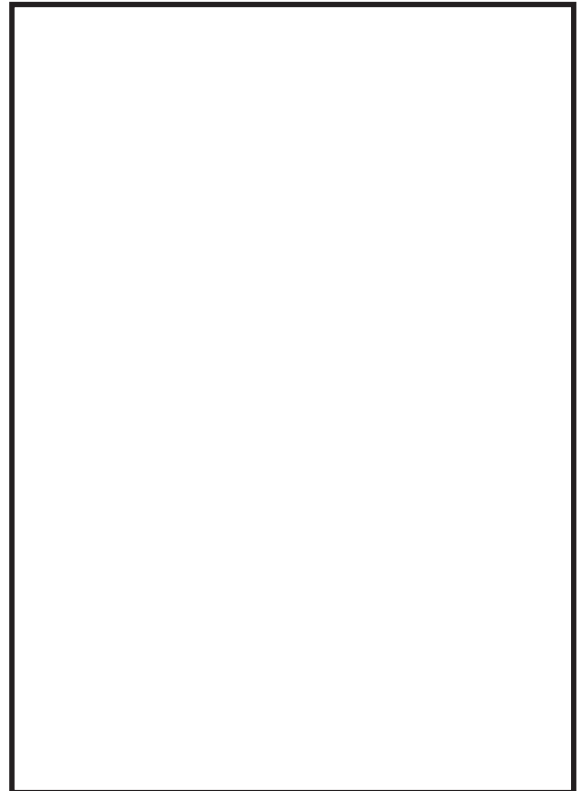
- a challenge that requires them to read and prepare in advance of class time
- a confronting situation that requires them to read original literature, deal with “messy” data, repeat experiments, take stock of their progress, and make evidence-based decisions about their experimental pathway
- an activity with an embedded structure that requires them to collaborate with and mentor each other
- a learning experience where they will need support from the teaching staff
- an assessment experience which may differ from their previous work (because there is no “right” answer) – students may need models and exemplars for their assessment pieces



Other Stakeholders

- For potential employers (both industry and academic)** the ALURE may produce students with a desirable set of skills. These potential employers may have an interest in suggesting which skills they want students to learn from ALURE. These employers may also be more interested in recruiting from particular universities if they know the students have access to ALURE projects.

- For the university as a whole** there may be kudos associated with better prepared students, improved student satisfaction ratings for teaching, and teaching and learning awards associated with ALURE implementation. These benefits may include the capacity to recruit more international students, more competition for available domestic places. They may manifest as improved revenue streams and increased quality of entering students.



- Laboratory and technical staff** may need additional support and equipment to prepare and deliver an ALURE in its first few iterations.

- Teaching staff (e.g., laboratory teaching associates)** may need specialised skills and training in facilitating undergraduate research projects. To ensure sustainability, care should be taken that the ALURE is not dependent on one person with a particular set of skills.

- Major convenors, Chairs of Teaching and Learning Committees, and Associate Dean (Academic)** may want to ensure that the ALURE aligns with the rest of the units or courses offered within the program. There may be university requirements to fulfil before an ALURE can be introduced.

