Distributed leadership to embed scholarship in STEM teaching teams

ACDS Fellows

Tina Acuña and Jo-Anne Kelder

Tina.Acuna@utas.edu.au

Jo.Kelder@utas.edu.au

utas.edu.au

1. TEQSA Guidance Note: Scholarship

2. A curriculum evaluation and research framework for STEM

3. Fellowship – intended outcomes

4. Future workshops

5. Your Feedback and Questions

This presentation:

To facilitate interaction – we will be using Padlet (you can log in as a guest from www.padlet.com or download the app on your phone)

'*The intent of the Standards is that scholarship that is claimed to inform teaching (or supervision) must have a demonstrable relevance to the course being taught, including scholarship relating to the process of teaching and learning in itself.*'

3.1.2 scholarship informs course design; *the content and learning activities of a course of study engage with advanced knowledge and inquiry*

3.2.3 teaching staff are equipped for their roles, including having *skills in contemporary teaching and assessment principles relevant to the discipline, their role, modes of delivery and the needs of particular student cohorts*

5.3.3 comprehensive reviews of courses of study are informed and supported by regular interim monitoring of the quality of teaching

UNIVERSITY *of* TASMANIA

1.1.4… academic staff are active in scholarship that informs their teaching…

1.2.4 … demonstrates the commitment of teachers, researchers, course designers and assessors to the systematic advancement and dissemination of knowledge

1.2.5 … demonstrates sustained scholarship that informs teaching and learning in all fields in which courses of study are offered

1.2.6 … identifies and implements good practices in student teaching and learning, including those that have the potential for wider dissemination nationally

Science TLO Good Practice Guides

Ideas for using the Science TLOs in course design…

The Good Practice Guides for the Science Threshold Learning Outcomes were published in 2013 with real examples of use from Australian universities. In the guides you will find:

> › about this learning outcome: *literature review*
> › where to find more: *resources*
> › real examples: *case studies*
> › what's happening next: *future directions*
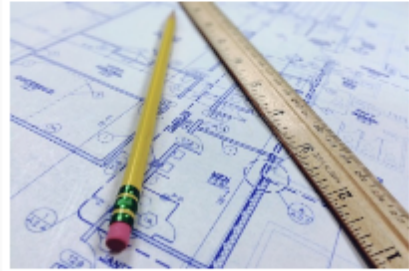
Science Good Practice Guide 2013 TLO1: Understanding Science

Science Good Practice Guide 2013 TLO2: Scientific Knowledge

Science Good Practice Guide 2013 TLO3: Inquiry and Problem-solving

Science Good Practice Guide 2013 TLO4: Communication

Science Good Practice Guide 2013 TLO5: Personal and Professional Responsibility

UNIVERSITY of TASMANIA

For TEQSA, scholarship means:

"those activities concerned with gaining new or improved understanding, appreciation and insights into a field of knowledge, and **... includes advances in ways of teaching and learning** in the field and advances in professional practice, as well as advances in disciplinary knowledge through original research."[3]

Scholarship

Making a **contribution** to the advancement of knowledge or professional practice in a field

Transmission of these advances through **effective, contemporary approaches** to teaching and learning

UNIVERSITY of TASMANIA
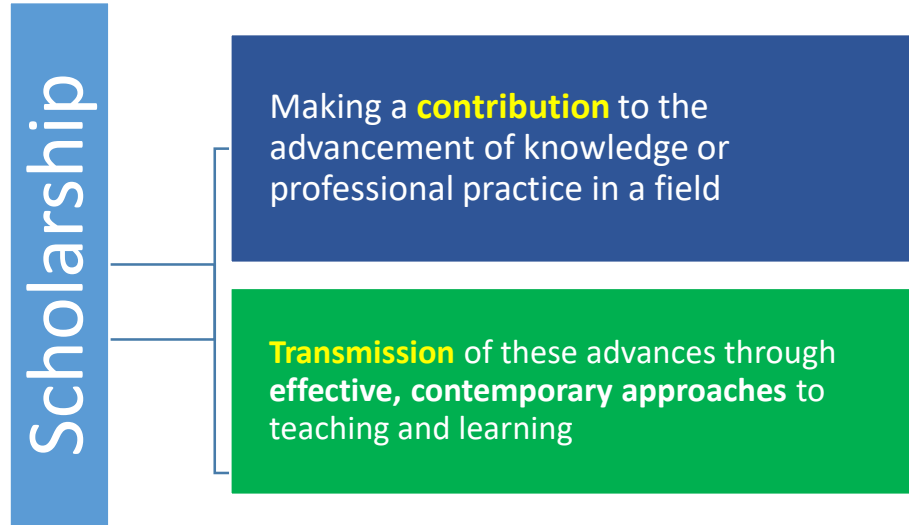
Standards for staffing

HES Section 3.2 specifies the requirements for teachers to be engaged with scholarship concerning their field of study and to be **skilled in teaching, learning and assessment practices appropriate to their discipline**

The intent is:

- Teachers are engaged with scholarship that is directly relevant to informing the content and methods of their teaching

- Keep up to date with developments in the field of education or discipline in which they teach

- Have an informed and advanced understanding of the field and/or how it is taught, learned and applied in practice

Risks to quality

A culture of continuing scholarship is fundamental to Higher Education:

Individual teaching staff failing to engage with scholarship related to their teaching will:

- become progressively less involved with developments in the discipline they teach,

- be less able to lead students in intellectual inquiry about developing concepts in their field

- be *less equipped to identify and adopt contemporary evidence-based advances in approaches to teaching in their field*.

1

RISK ASSESSMENT
TEQSA prepares risk assessment
– *Use of existing information*

2

DIALOGUE WITH PROVIDER
TEQSA will share a risk assessment with ***all*** providers (excluding new providers that have no data and therefore a 'Suspended' overall risk rating

3

NEXT STEPS
TEQSA determines approach
• No action
• Response from provider required
• Meeting with provider required
• Informs scheduled regulatory review process
• Further action if necessary (e.g. Request for Information)

UNIVERSITY of TASMANIA

- *Scholarship directly associated with informing teaching and learning*, including disciplinary scholarship

- *Scholarship contributing to the design and delivery of particular courses of study*

- Scholarship associated with research and research training, if applicable to the provider

- *Institutional encouragement and support for scholarship across all courses of study*

SCHOLARSHIP

Activities concerned with gaining new or improved understanding, appreciation and insights into a field of knowledge

Find out more at teqsa.gov.au/guidance-notes

UNIVERSITY of TASMANIA

TEQSA will look for individual evidence e.g.

- Scholarly publication/communication (e.g. literature reviews & conference presentations)

- Scholarly reviews of knowledge/teaching that contribute to course development

- Original research in a discipline or on teaching and learning practices

- Leadership of advanced professional development activities

- Contributions to professional bodies or communities of practice

- Involvement in scholarly academic societies, editorial roles or peer review

- Undertaking higher degrees by research

- Undertaking advanced specialised practice or scholarly secondments

Rate yourself; rate a teaching team

Thinking about about yourself:

How would you rate yourself according to the TEQSA Guidance Note: Scholarship?

Thinking about a teaching team:

How would you rate the scholarly environment for a teaching team you know according to the TEQSA Guidance Note: Scholarship?

To contribute via Rate yourself: rate your Faculty/College Padlet:
go to
https://padlet.com/jokelder/4dx9mdkrtzhc

TEQSA will look for institutional evidence of:

- Policies that encourage or enable scholarship, and their operation in practice

- **Extent to which institutional course approval processes examine the contribution of continuing scholarship to the design of a course of study**

- Whether staffing policies (e.g. recruitment, promotion, professional development) recognise and encourage scholarship

- Resource allocations to support scholarship in particular fields

- Extent of institutional activities to support scholarship

UNIVERSITY of TASMANIA

Rate yourself; rate a teaching team

Thinking about about your Faculty/College:

How confident do you feel that the *TEQSA Guidance note: Scholarship* will be actioned?

To contribute via Rate yourself: rate your Faculty/College Padlet: go to https://padlet.com/jokelder/4dx9mdkrtzhc

What does not count?

Activities **unrelated** to the discipline/field being taught, including:

- Dated scholarly activity (content or methods no longer employed in the field)

- Research in disciplines/fields or new teaching approaches that are unrelated to those disciplines or fields being taught

- Professional practice that does not engage with advances in practice

- Involvement with unrelated professional/community activities (e.g. conferences)

- Cognate activities at a lower level, including teaching or unrelated professional development

UNIVERSITY of TASMANIA

Are the institution's staff, overall:

- Actively involved in the development of current ideas for teaching

- Using this knowledge to shape teaching practice

- Engaged in evaluating and reflecting on teaching practice and student learning

- Engaged in communication, discussion or debate with other scholars

- Stimulating students and fostering their learning in a variety of ways

- Exploring, testing, practising and communicating understanding of what practices are most effective in the context of the discipline (pedagogical content knowledge).

UNIVERSITY of TASMANIA

- Disciplinary research is prioritised

- Lack of widespread capacity/expertise in SoTL

- Need to identify mechanisms to engage and reward academics who engage in SoTL

- HESF focus on degree-level curriculum implies the whole team of academics
    - Not just the remit of teaching-focussed academics (leadership opportunity?)

- Value proposition for scholarship needs to resonate with academic goals and aspirations
    - Not communicate administration for compliance
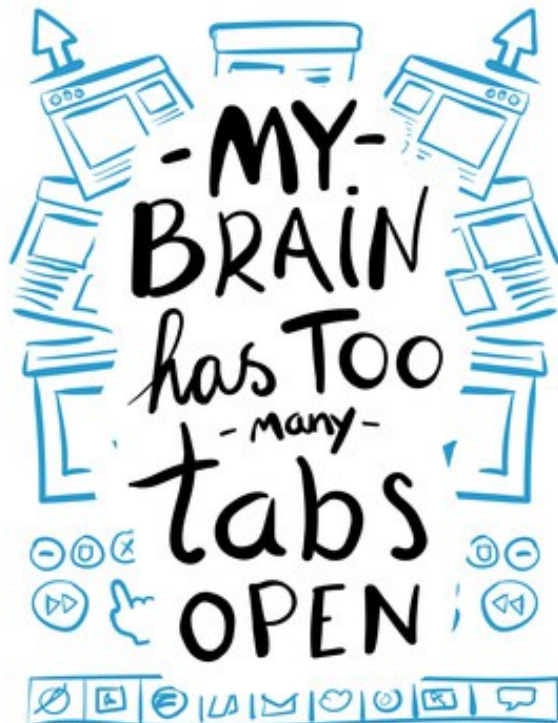
Curriculum Evaluation and Research Framework

- Developed by Kelder and Carr, 2017

- CER Framework

- The CER framework embeds scholarship in:
    - The annual cycle of quality improvement
    - Recurrent and quality assurance and external benchmarking (at least 5 yearly)
    - Leading to evidence-based scholarly outputs
    - Informs a collaborative approach to curriculum design that can be facilitated within and across disciplines and university boundaries

- The Fellowship and CER framework:
    - Contextualise and tailor the CER framework to suit the STEM discipline
    - Develop a CER STEM specific website with resources

UNIVERSITY of TASMANIA

CER / STEM

QUALITY FOCUS: Improvement

Quality objective
- Identify & address curriculum problems (unit and course level)

Collaboration focus
- teaching team members provide peer support & mentoring

QUALITY GOAL: Enhance Student Learning

QUALITY FOCUS: Scholarship

Quality objective
- Plan & apply scholarship to course curriculum & teaching
- Dissemination for impact

Collaboration focus
- teaching team members form peer partnerships for scholarship including SoTL dissemination

QUALITY FOCUS: Assurance

Quality objective
- Assurance via internal & external peer review & benchmarking
- Identify & reward good practice

Collaboration focus
- teaching team members peer review teaching & curriculum

Objectives of the CER STEM fellowship

- Reconceptualise the CER framework based on implementation at six higher education providers, to ensure alignment with the *TEQSA Guidance Note: Scholarship*

- Address barriers to uptake and address identified opportunities and strategic actions that will support institutions to incorporate scholarship into their infrastructure for learning and teaching

- Extend and contextualise the CER STEM framework in at least six Science (or Allied) Faculties/Colleges in Australian universities

- Build on national and international networks and partnerships to promote best practice in learning and teaching.

Contributing and curating of resources: interactive session

What resources are available in your Faculty or institution (or elsewhere) that you have found useful in guiding scholarship?

To contribute via Scholarship Resources Padlet:

go to https://padlet.com/jokelder/n6zeq1dyoqqx
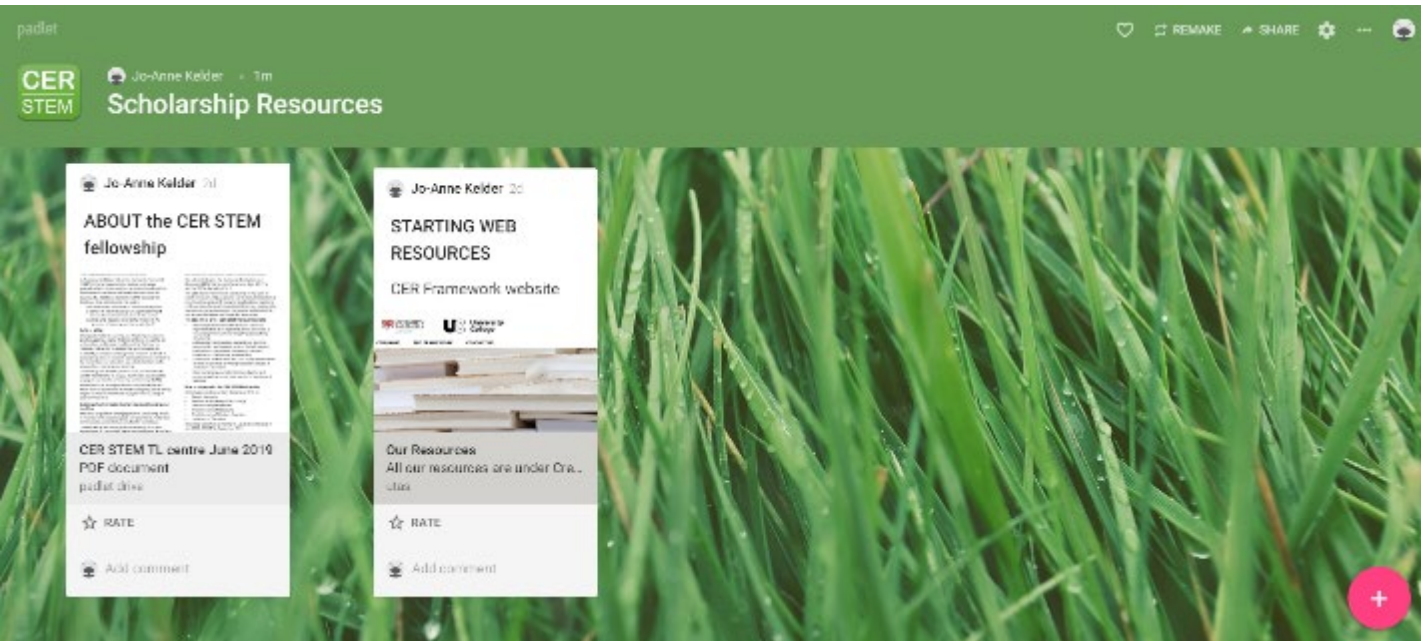
How to engage with the CER STEM Fellowship

Workshops are planned from September 2019 at:

- Deakin University
- Swinburne University of Technology
- The University of Adelaide
- The University of Melbourne
- The University of Western Australia
- University of Tasmania
- Discipline Day, ACSME

Dates to be advised

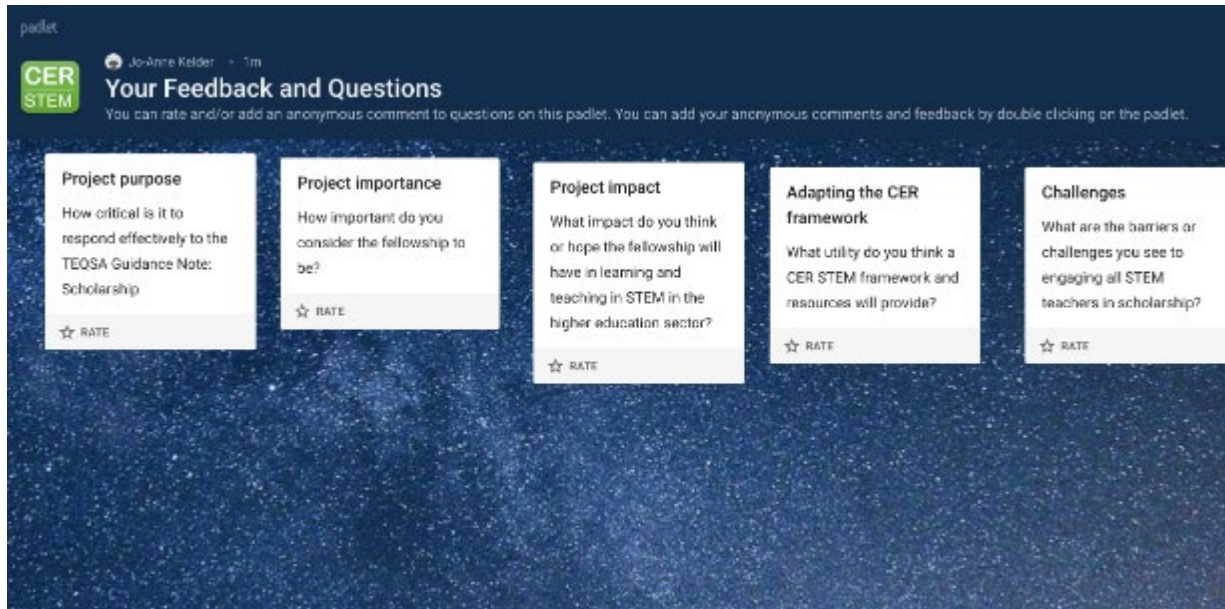- We can offer a workshop at another institution not listed here, when we are in the area

Website coming soon!

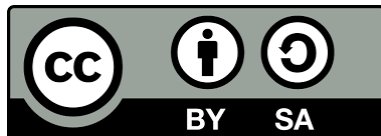## To contribute via Your Feedback and Questions Padlet:

go to https://padlet.com/jokelder/6p8xud18uo9a

Thank You!

Tina.Acuna@utas.edu.au

Jo.Kelder@utas.edu.au

UNIVERSITY of TASMANIA

All our work is under Creative Commons Attribution Share-Alike (CC BY-SA) license

Tina Acuna   **tina.acuna@utas.edu.au**

Jo-Anne Kelder   **jo.kelder@utas.edu.au**

Acknowledgment:

The slides on the *TEQSA Guidance Note: Scholarship* are based on a presentation prepared by **Dr Catherine Moore** (c.moore@ecu.edu.au) for a pre-conference workshop at HERDSA 2019, facilitated by Jo-Anne Kelder, Andrea Carr (a.r.carr@utas.edu.au) and Melanie Williams (Melanie.Williams@angliss.edu.au)