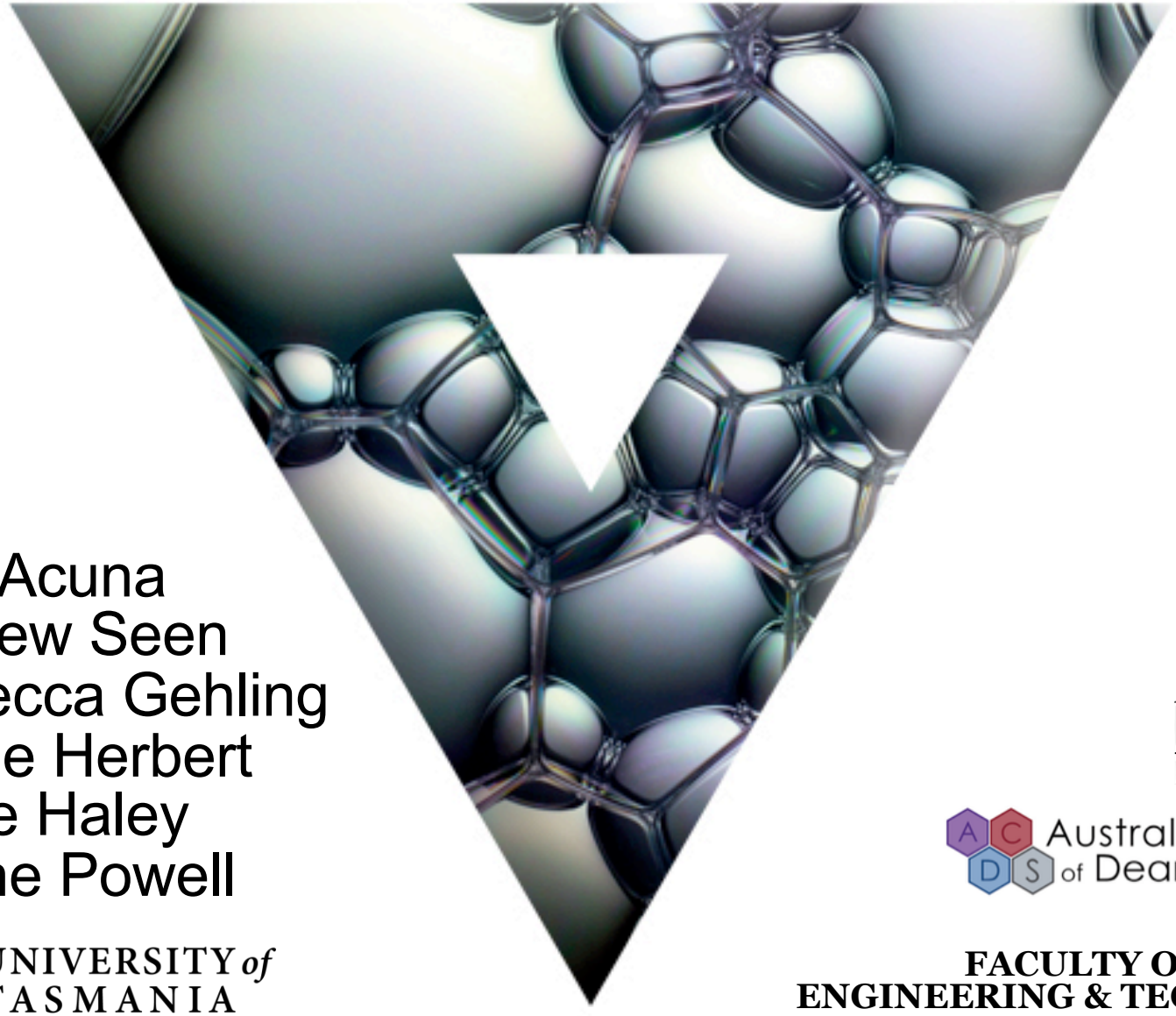
Unifying WIL in Science at the University of Tasmania



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Australian Council of Deans of Science

FACULTY OF SCIENCE, ENGINEERING & TECHNOLOGY

Project aims

1. Develop a generic program for on- and off-campus WIL in the faculty
2. Develop a network of industry contacts for WIL in Science and related disciplines for Tasmania
3. Create a Faculty Advisory Board for industry engagement

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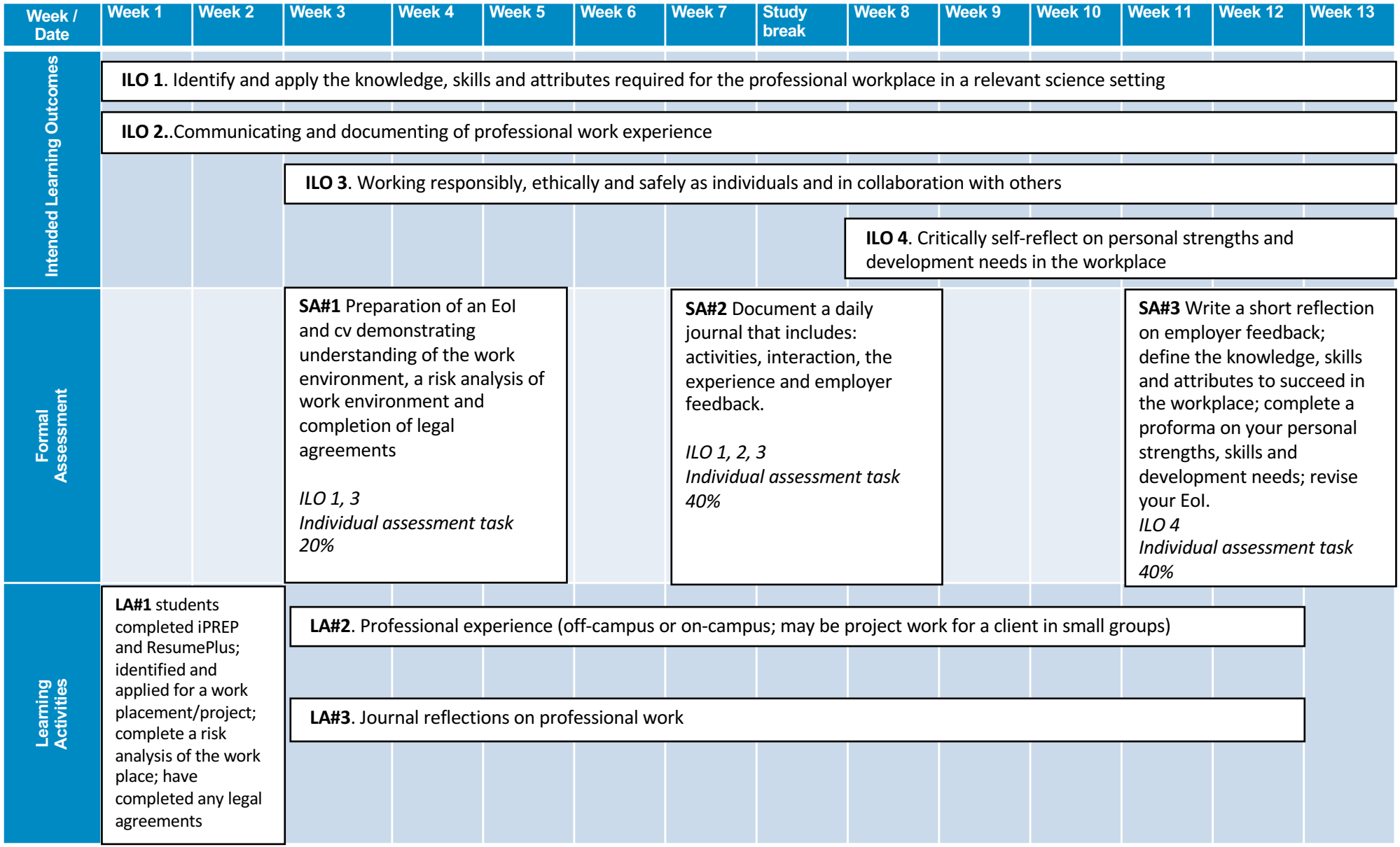
Context at UTAS

- Faculty of Science, Engineering and Technology
  - Five schools; BSc with 17 majors

- December, 2015:
  - No WIL ‘placement’ type unit
  - Limited discussion of WIL in Science
  - ‘Green’ paper imminent on WIL

- December, 2016
  - ‘White’ paper on whole of curriculum renewal across UTAS
  - WIL, experiential learning as a cornerstone

A generic program for on- and off-campus WIL in the Faculty



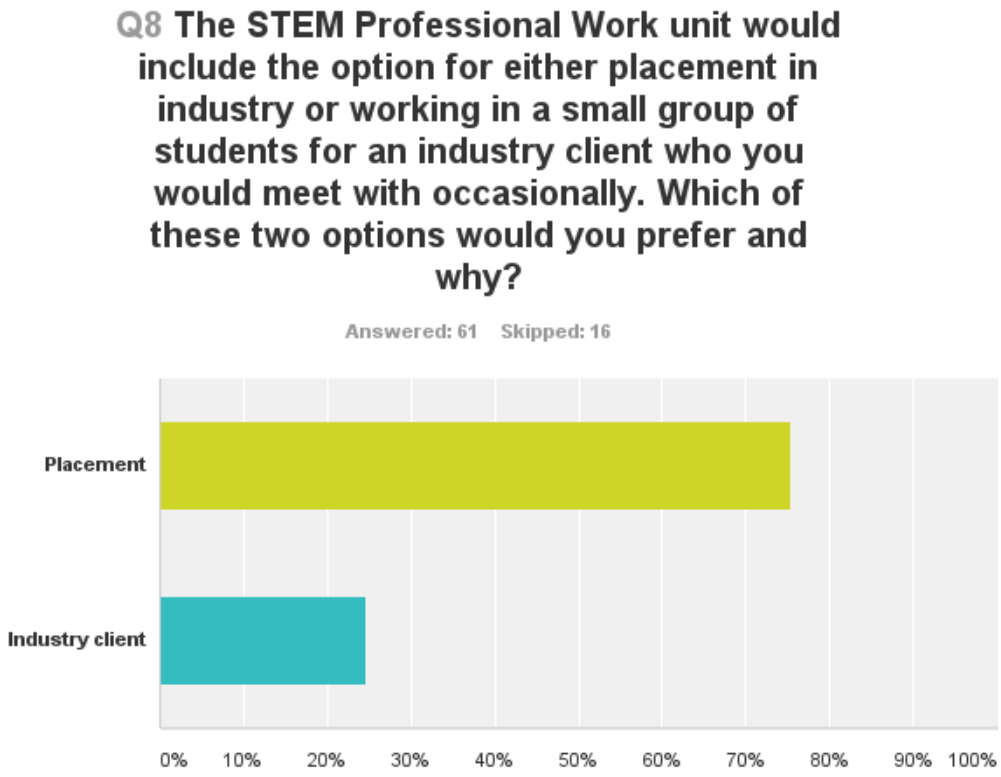
Student feedback
What work have you done?

Placement vs. project work in a team for a client

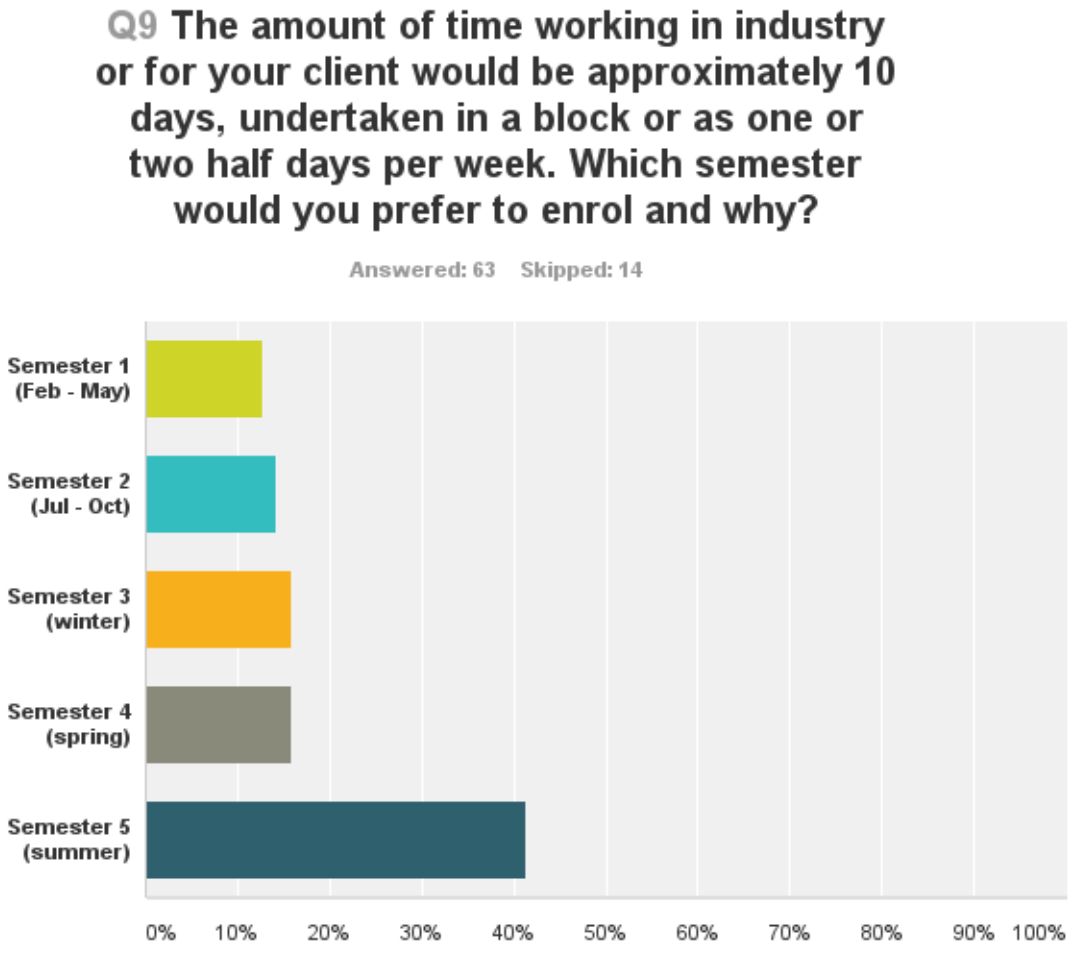
- Placement is:
  - '*More realistic and relevant*'
  - '*Build up* [professional] *contacts*'
  - '*Promotes communication*'
  - '*Lead to work after graduation*'
  - '*Find out what people do with a degree in my discipline*'

- I don't like group work
  - '*Not for students with a high GPA*'
  - '*Benefits industry, not students*'

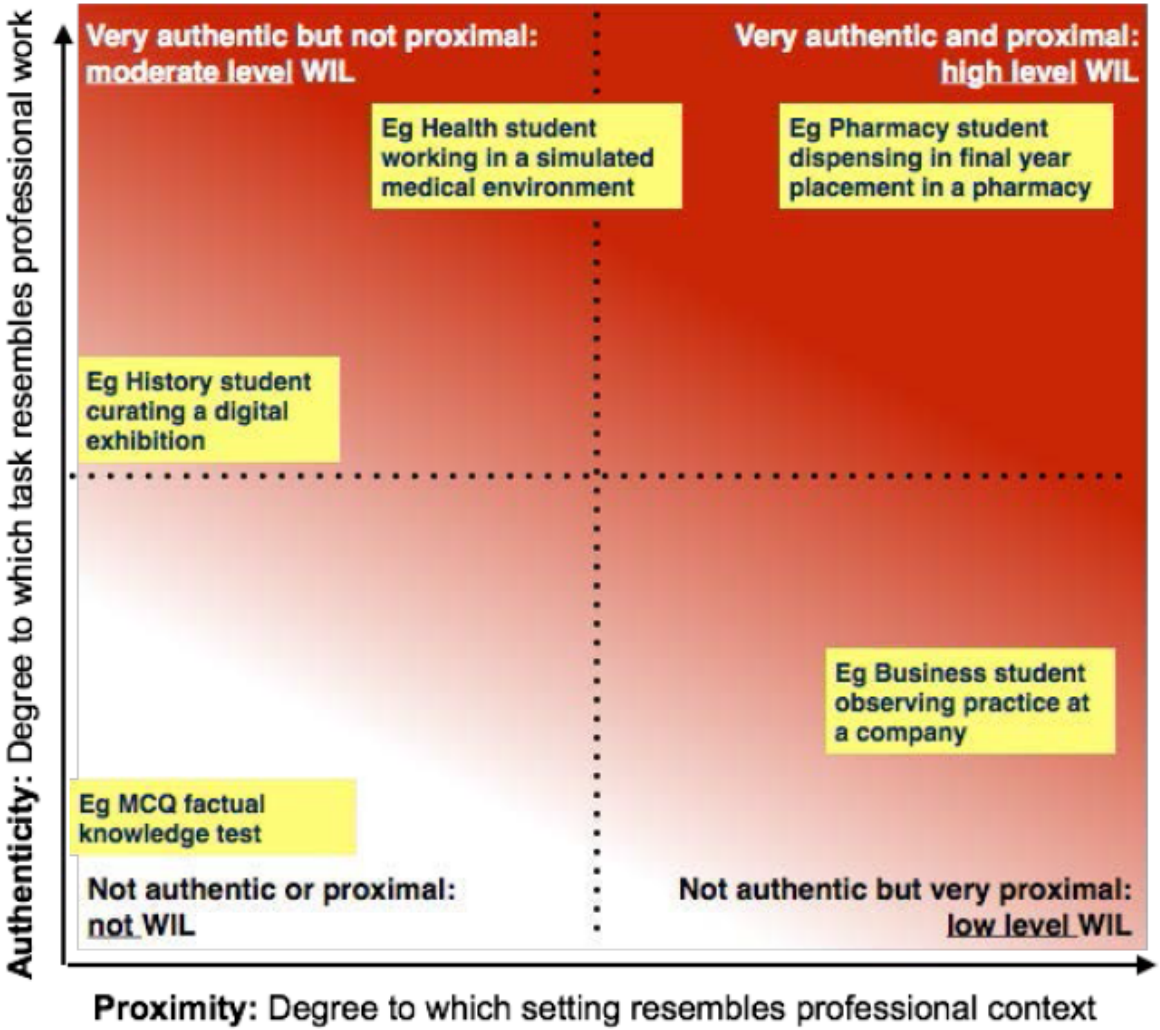
- I like group work
  - '*Likeminded students, each with a unique perspective to bring to the table*'
  - '*Easier to manage with study*'



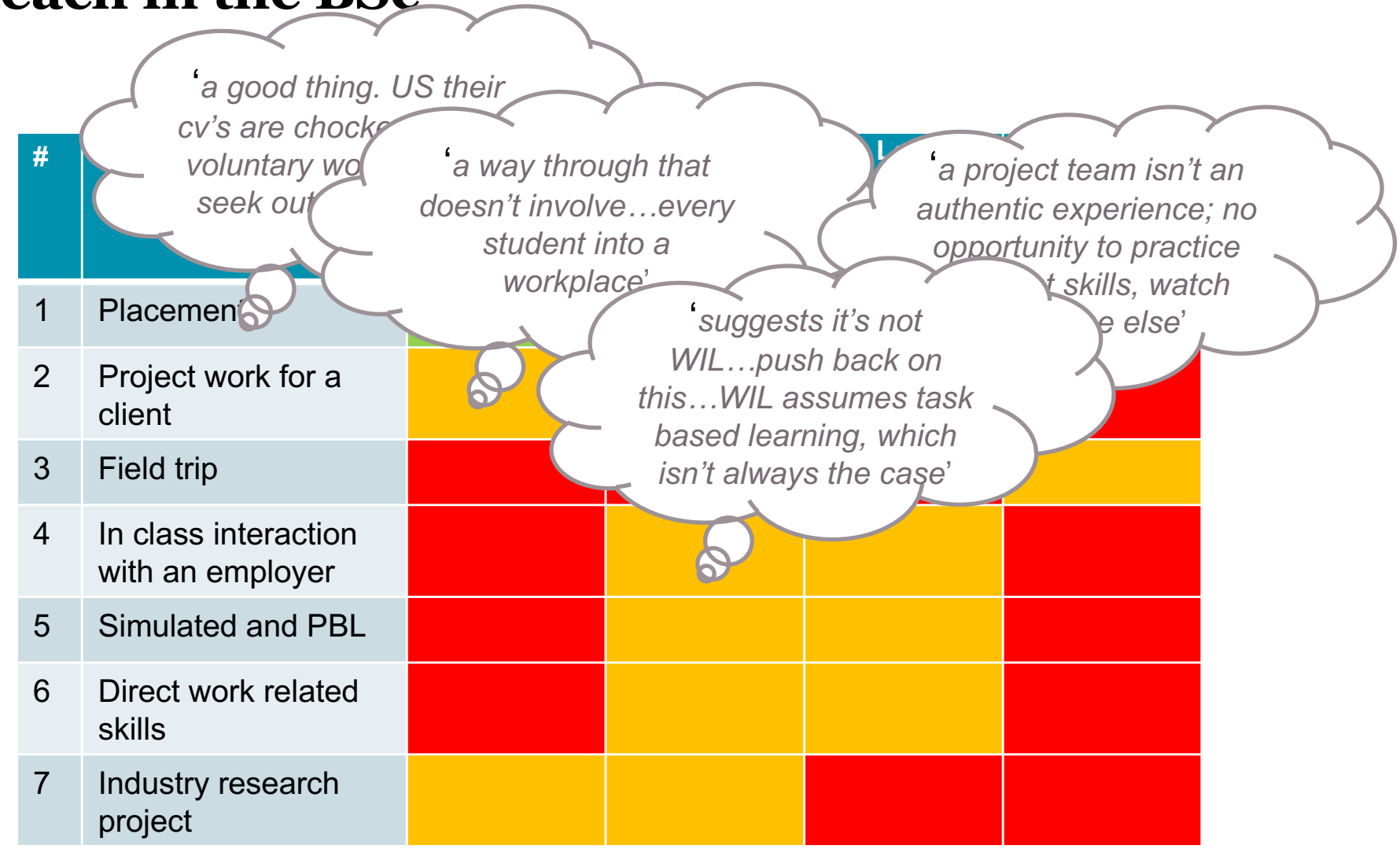
When to offer the unit



Authenticity and proximity



Focus group discussions with academics who teach in the BSc



#	
1	Placement
2	Project work for a client
3	Field trip
4	In class interaction with an employer
5	Simulated and PBL
6	Direct work related skills
7	Industry research project

N = 21; 10 disciplines

Reflective practice in Science

- Maths & Physics: '*Very little, we focus on technical skills and problem solving' 'not about how did they feel*'
- Zoology: '*Spend a lot of time talking about different types of communication. Reflection is a different type of writing. Teach students what that means. Will talk about the entry every week in the journal. Meta-reflection at the end of the unit*'
- Surveying: '*Students saying reflection is really good- can put it into their e-portfolio*'
- '*Really need to guide students in reflection. Very foreign*'

Availability of places

- '*Field trip opportunities increasingly restricted due to on-site WHS*'
- '*Difficult for us to place students locally – if they are finding WIL it's in the wilds of WA or a leach infested west coast of Tasmania*'
- '*In the context of geoscience, we would have great difficulty placing someone for 7 – 10 days in Hobart. However for some of our students who take vocational work where they are in a workplace for up to 2.5 months*'

Industry

- Keen to engage with the university
- Graduate employability
  - Application of skills
  - Extra-curricula activities
  - Communication, business acumen/sense
- Semesters and timing of work can be out of sync
- Small companies, in some cases, more agile for accommodating students on placement
- Global companies interested in the flexibility offered by group projects

Industry reference group

- Option A
  - Industry reference group
  - Industry representatives from a range of Science stakeholders
  - TOR drafted

Industry reference group

- Option A
  - Industry comes to the Faculty
  - Industry representatives from a range of Science stakeholders
  - TOR drafted

- Option B
  - Distributed industry network
  - Regional stakeholder groups

Conclusions

- Positive change towards implementing WIL in the Faculty
- Opportunity to aggregate WIL activities in the Faculty
- Two approaches identified for the Faculty to engage with industry
- Excellent timing, given the strategic direction of UTAS outlined in our Curriculum Renewal Project
- Linkages made with other universities regarding WIL