

Unifying WIL in Science at the University of Tasmania

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**FACULTY OF SCIENCE,
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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
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A generic program for on- and off-campus WIL in the Faculty

Week / Date	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Study break	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Intended Learning Outcomes	ILO 1. Identify and apply the knowledge, skills and attributes required for the professional workplace in a relevant science setting													
	ILO 2..Communicating and documenting of professional work experience													
	ILO 3. Working responsibly, ethically and safely as individuals and in collaboration with others													
	ILO 4. Critically self-reflect on personal strengths and development needs in the workplace													
Formal Assessment			SA#1 Preparation of an Eol and cv demonstrating understanding of the work environment, a risk analysis of work environment and completion of legal agreements ILO 1, 3 Individual assessment task 20%			SA#2 Document a daily journal that includes: activities, interaction, the experience and employer feedback. ILO 1, 2, 3 Individual assessment task 40%			SA#3 Write a short reflection on employer feedback; define the knowledge, skills and attributes to succeed in the workplace; complete a proforma on your personal strengths, skills and development needs; revise your Eol. ILO 4 Individual assessment task 40%					
Learning Activities	LA#1 students completed iPREP and ResumePlus; identified and applied for a work placement/project; complete a risk analysis of the work place; have completed any legal agreements		LA#2. Professional experience (off-campus or on-campus; may be project work for a client in small groups)											
			LA#3. Journal reflections on professional work											

Student feedback

What work have you done?

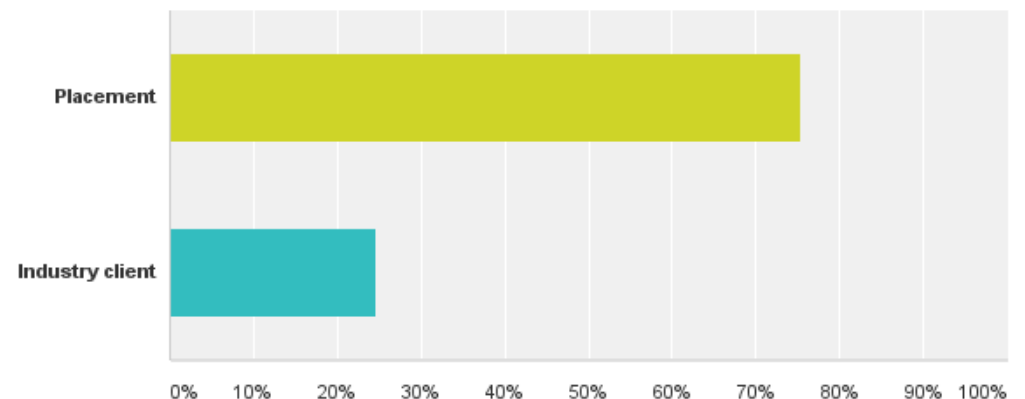


Placement vs. project work in a team for a client

- 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'*

Q8 The STEM Professional Work unit would include the option for either placement in industry or working in a small group of students for an industry client who you would meet with occasionally. Which of these two options would you prefer and why?

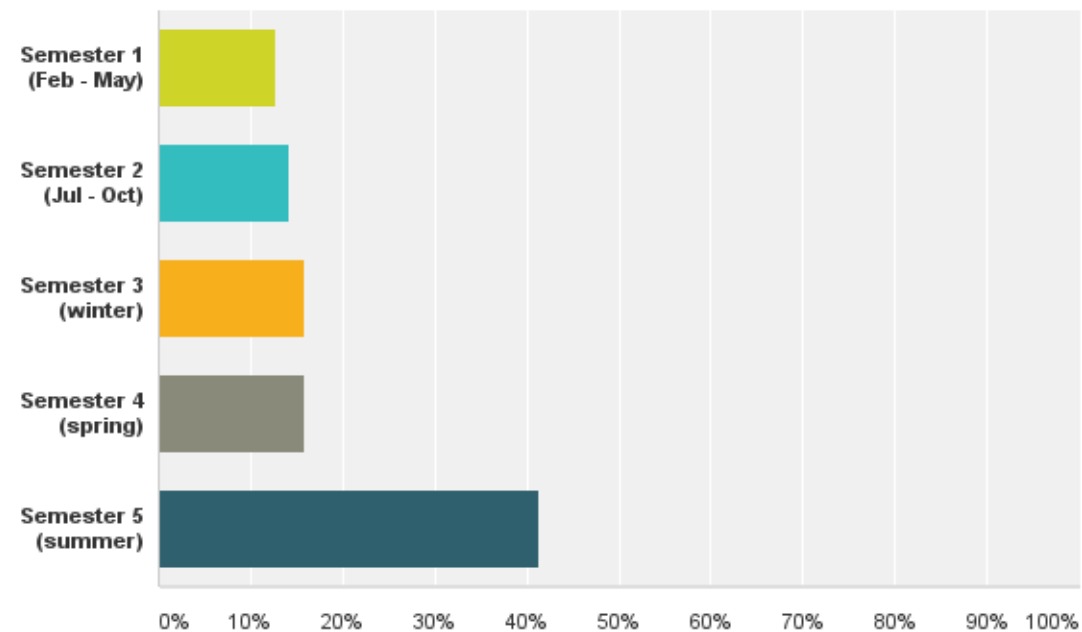
Answered: 61 Skipped: 16



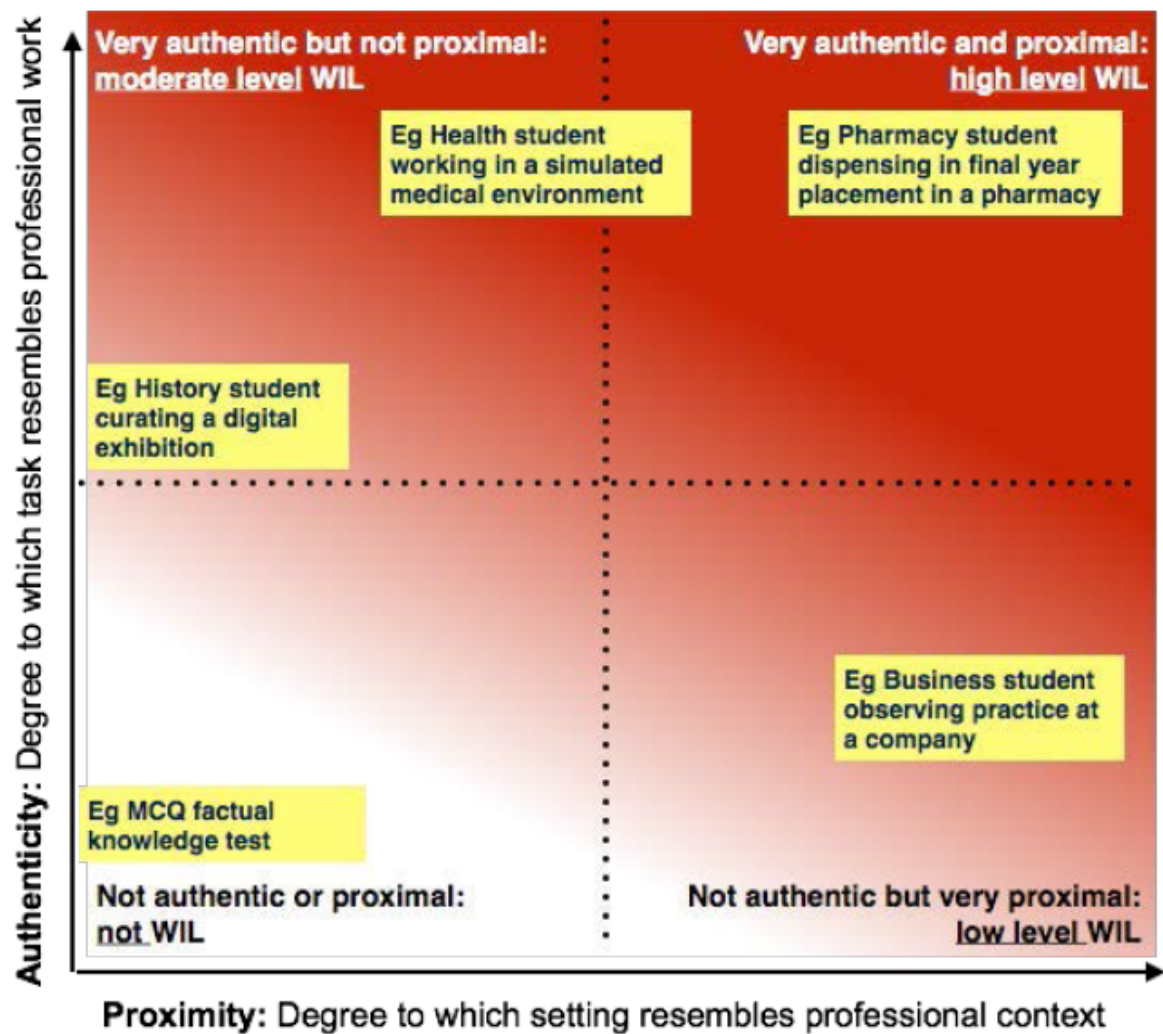
When to offer the unit

Q9 The amount of time working in industry or for your client would be approximately 10 days, undertaken in a block or as one or two half days per week. Which semester would you prefer to enrol and why?

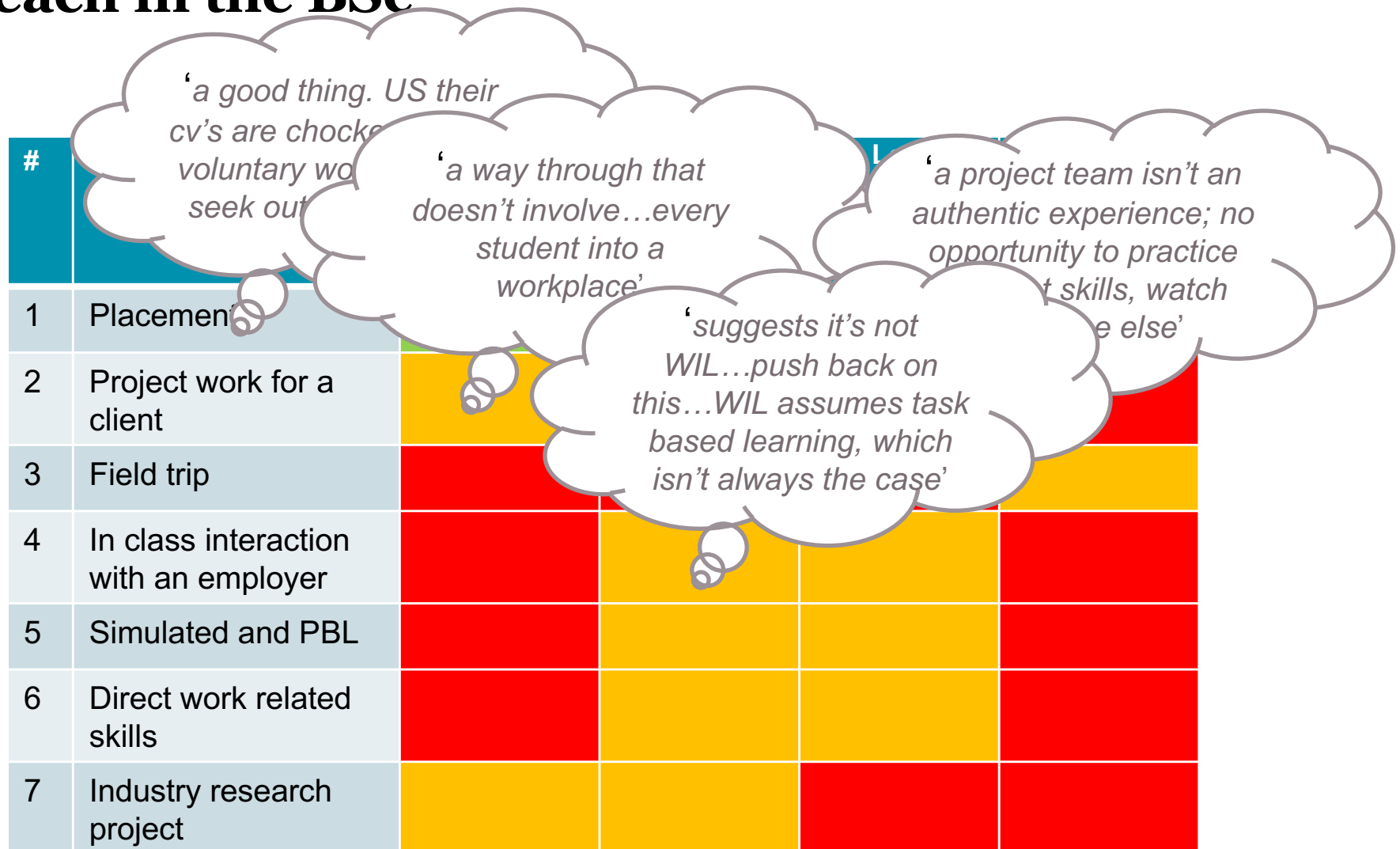
Answered: 63 Skipped: 14



Authenticity and proximity



Focus group discussions with academics who teach in the BSc



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
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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
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