



# Beyond the discipline – mapping and developing WIL across transdisciplinary curricula

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**Background:** Rapid changes to the world of work means new university graduates will enter career paths that are unlikely to be linear, and students will require a diverse set of skills to maintain employability. One way to develop these skills is to move beyond a discipline and engage students in a transdisciplinary curriculum that introduces opportunities to ‘creatively...transform and apply knowledge and skills across multiple disciplinary contexts’ (Barrie, 2020).

One way to promote this is to offer transdisciplinary curricula that allows students to learn knowledge they would not experience within their discipline. Then, intentional placement of WIL activities in the transdisciplinary curriculum lets students apply their knowledge in unfamiliar scenarios. This is a goal for developing the types of skills required for future work (Piggott, 2020).

**Project:** The aim of this project was to develop two transdisciplinary minors that would be available to any student and would have outcomes that developed STEM capability.

**Methodology:** The two minors were required to have a STEM theme and be constructed using five subjects from at least four different schools. The selected subjects (n=8) were scrutinised for WIL activities by analysis of subject documentation (learning guides) and interviews with coordinators. The activities were identified using a WIL rubric (Jones, 2019) and the WIL content was mapped across the minors.

## Results:

Figure 2. WIL content in *Innovating for Humans*.

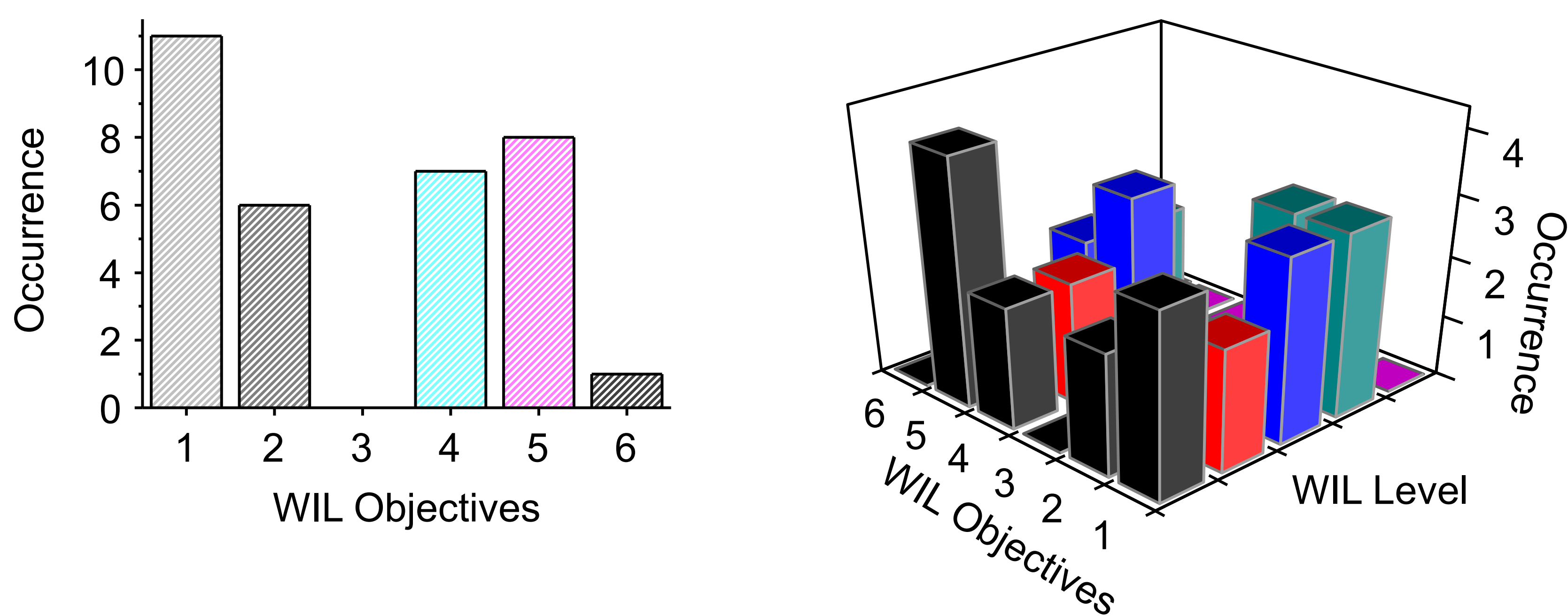


Figure 3. WIL content in *Eco-Socially Conscious Design and Manufacturing*.

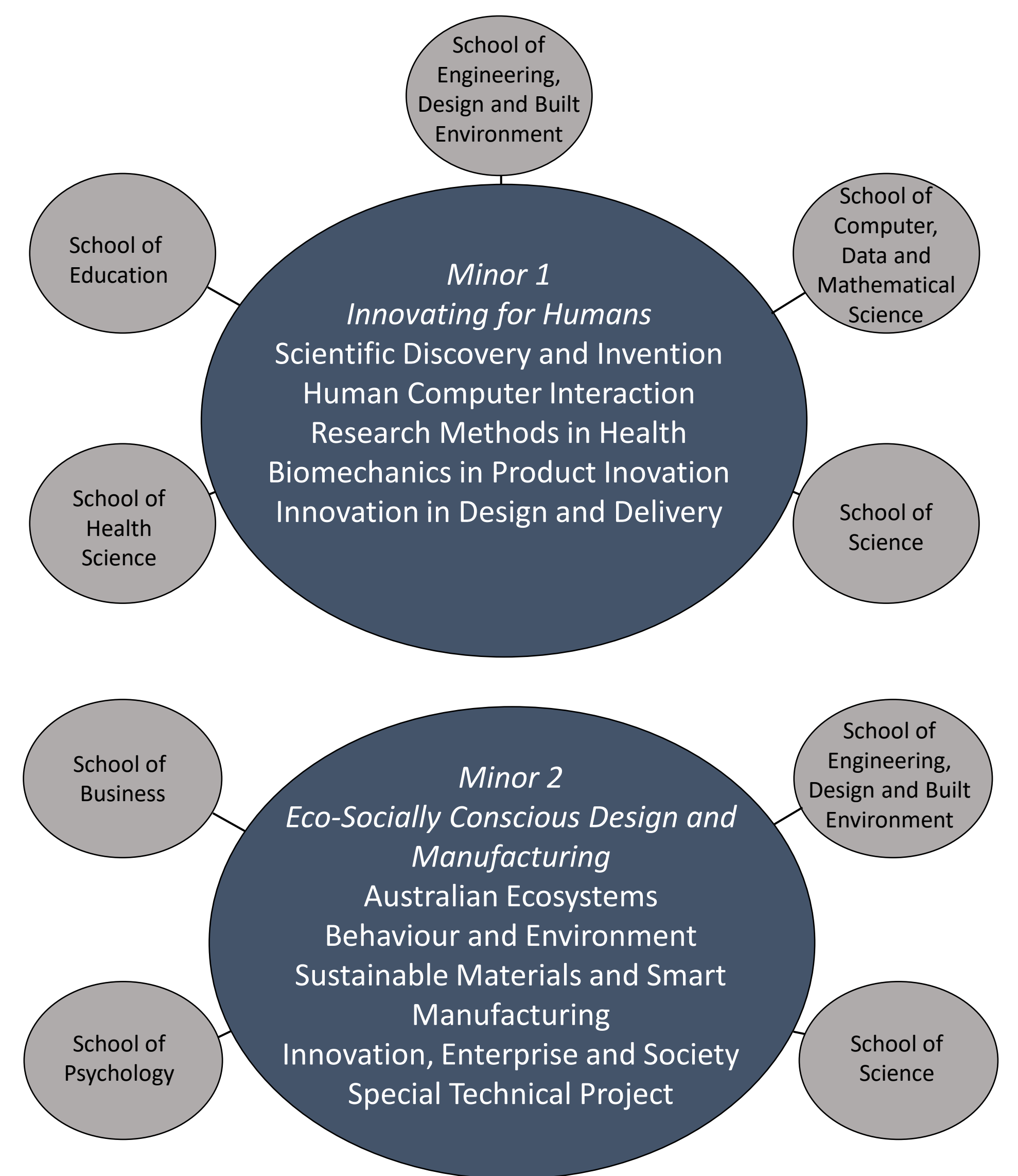
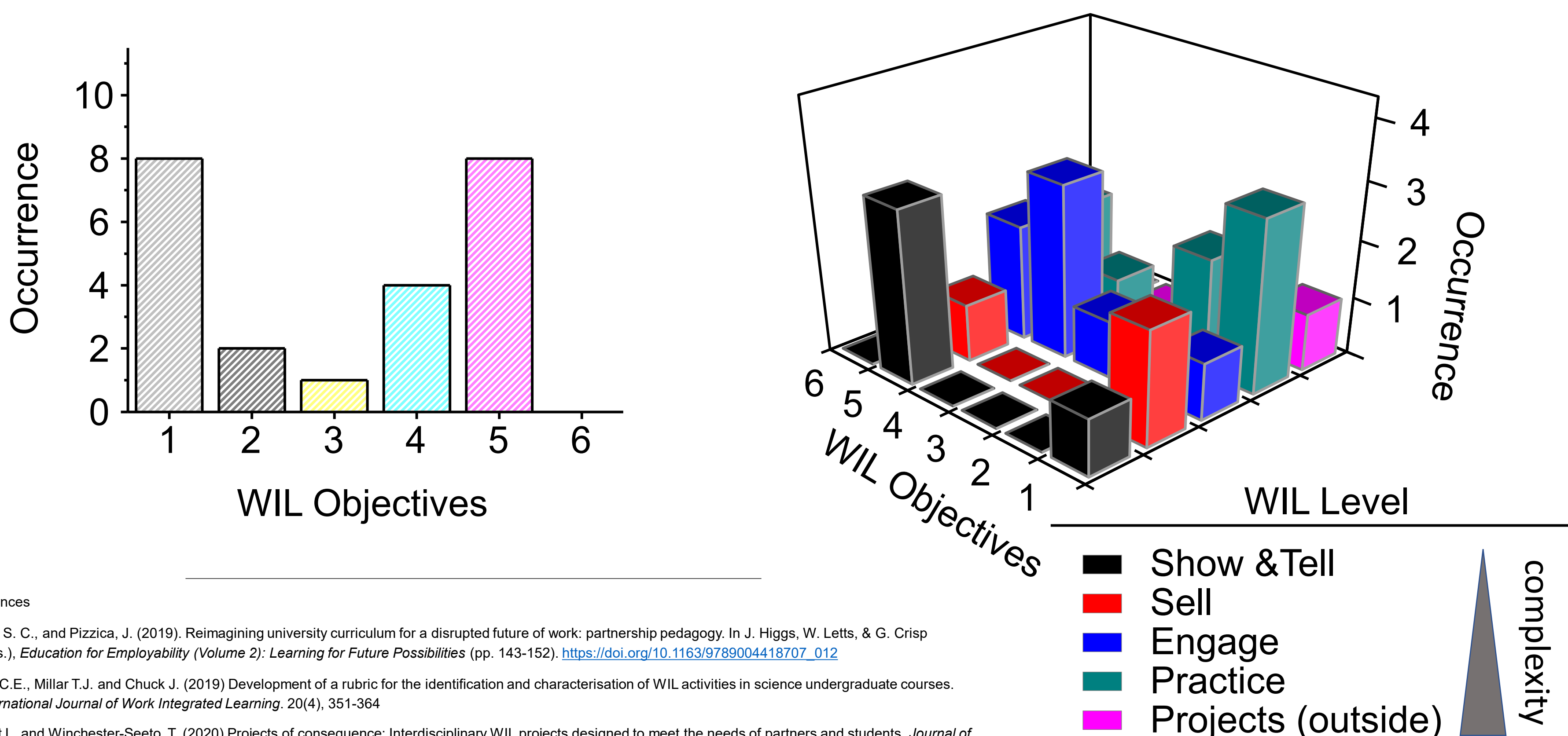


Figure 1. The two transdisciplinary minors developed in this project. The subjects in the minor (inner circle) were derived from at least four different schools (outer circles)

- WIL Objectives**
1. To develop curriculum linked workplace/occupation specific skills, knowledge and be able to adapt and apply them
  2. To build an understanding of the nature of industry and the different occupations as they relate to industry
  3. To facilitate self understanding
  4. To train professions to enter a specific (STEM) industry in accordance with the standards of a defined industry
  5. Develop employability and contextualized language, literacy and numeracy skills.
  6. Develop career management skills

**Discussion:** Two transdisciplinary minors were developed using disciplinarily diverse subjects (Fig. 1) but where each contributed to STEM themes of *Innovating for Humans* and *Eco-Socially Conscious Design and Manufacturing*. Developing STEM capability in students completing these minors requires appropriate WIL activities. Mapping of WIL activities already in the curriculum revealed gaps (Fig. 2 and Fig. 3). Notably, activities aligning with WIL objectives 3 (*self understanding*) and 6 (*career management*) are largely missing. Within the WIL levels, projects that are outside the classroom are under represented.

We are now working to address these gaps by intentionally developing activities that target specific WIL objectives and by developing projects that are not linked to a particular discipline and are able to be taken by any student.