

# WIL in Interconnected Science Degrees

## What are WIL outcomes?

### 1) Identify WIL in degrees

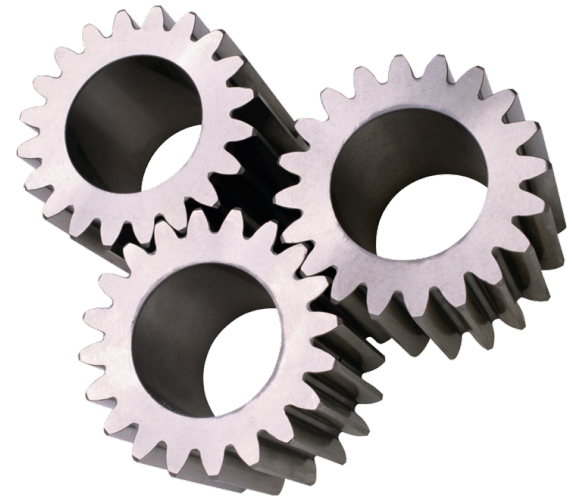
a) Learning guides

Explicit WIL

b) Questionnaire

Hidden WIL

c) Do we need more WIL?



### 2) New intern type unit

**“Scientist” & “The Science Professional”**

## 71 units completed

**WIL activities assessed using rubric -> degrees**  
**‘WIL in Science’ unit passed SAC**

The image shows the front cover of a report titled "Work Integrated Learning in STEM in Australian Universities: FINAL REPORT". The cover has a dark blue background with a white diagonal stripe. The title is in large, white, sans-serif font. Below the title, "FINAL REPORT" is written in a smaller, bold, white font. Underneath that, "Submitted to the Office of the Chief Scientist" is written in a smaller white font. At the bottom left, the date "June 2015" is printed in white. A small white square is visible in the top right corner of the cover.

Work Integrated Learning in STEM in Australian Universities

FINAL REPORT

Submitted to the Office of the Chief Scientist

June 2015

(Edwards *et al.*, 2015).

# Interviews

Face to face and video

Find information about  
WIL activities happening  
in unit.

Promoting change



WESTERN SYDNEY  
UNIVERSITY



## WIL Questionnaire

Date (dd/mm/yyyy)

### UNIT CO-ORDINATOR INFORMATION

Name

Title

E-mail

Phone Extension

### UNIT INFORMATION

Unit Name

Unit Number

Main Discipline Area

Do you know what WIL is?

☒ Yes  
☐ No

If yes, then record co-ordinator's  
description of WIL here:

THIS UNIT HAS BEEN IDENTIFIED FROM THE  
LEARNING GUIDE AS HAVING A POTENTIAL  
WIL ACTIVITY.

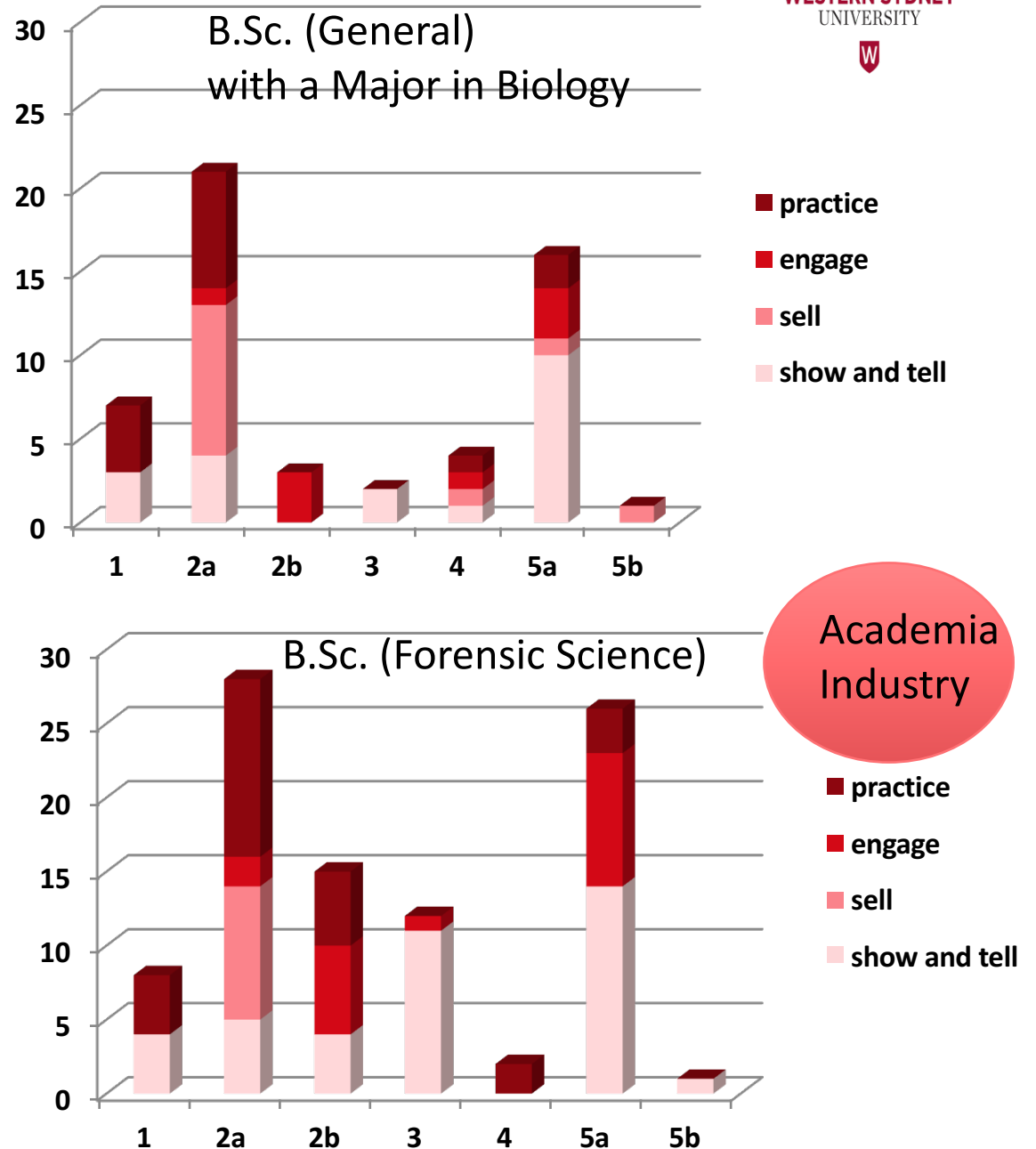
☒ Yes  
☐ No

Given that WIL is a term for an activity or  
program that integrates academic learning with  
its application in the workplace, can you  
identify potential WIL activities in the unit that  
you co-ordinate?

☒ Yes  
☐ No

# Mapping.

1. Build workplace skills & knowledge
2. To develop occupation skills/knowledge & skills to adapt and apply
  - 2b Train professionals to enter a specific industry
3. Understand nature of industry/occupations
4. Facilitate self understanding
- 5a. Develop employability and contextualised language, literacy and numeracy skills
- 5b. Career management



# Capstone: LQM

**students choose a test to  
be accredited by NATA**

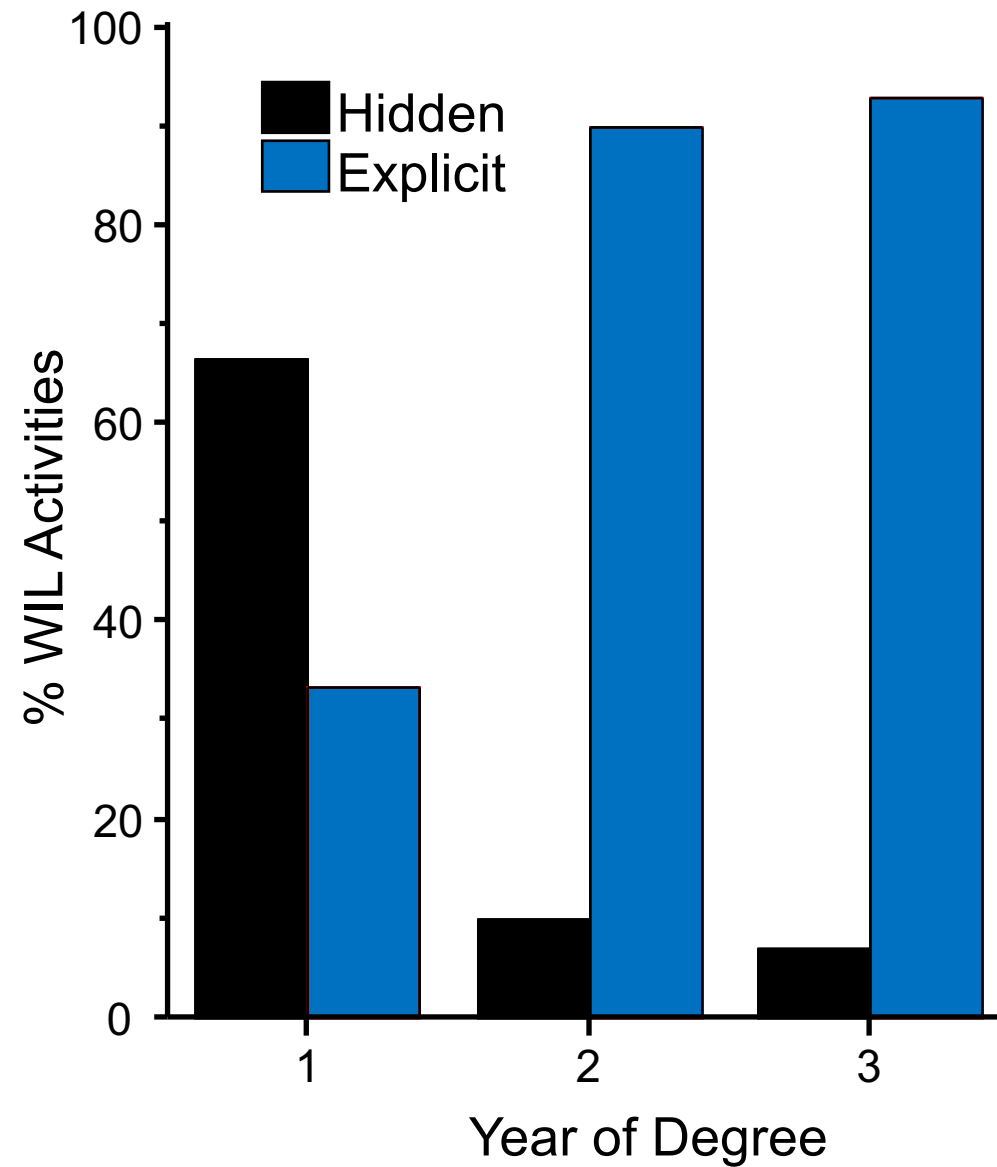
**use professional literature**

**Assessed by NATA  
personnel**

**Reflection and audit  
recommendations.**

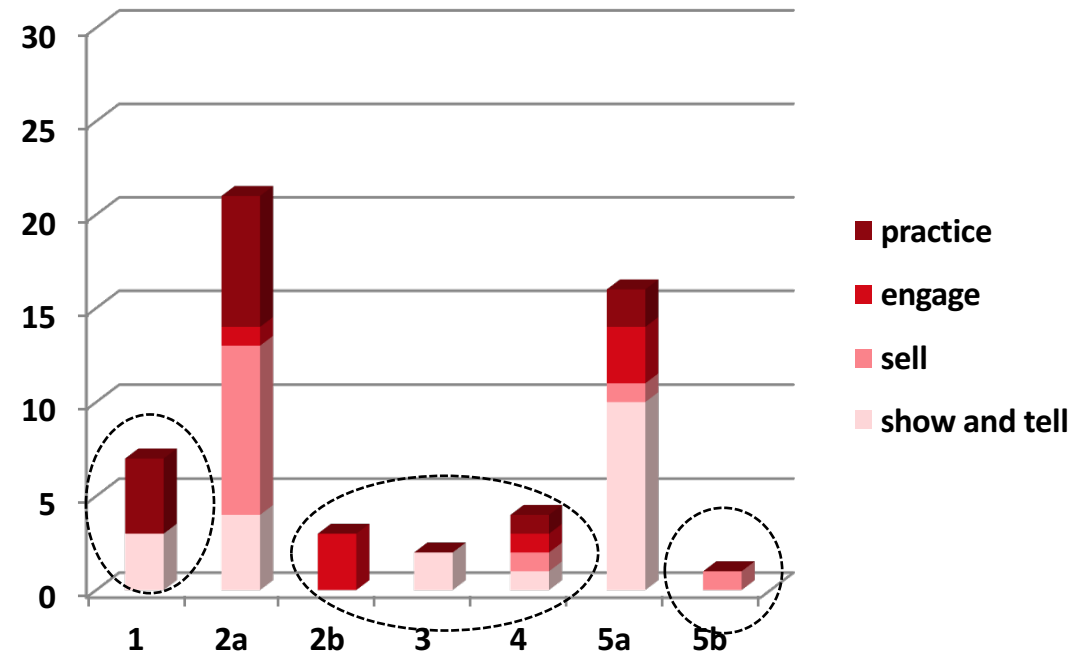


# Explicit vs Hidden WIL



## B.Sc. (General) with a Major in Biology

1. Build workplace skills & knowledge
2. To develop occupation skills/knowledge & skills to adapt and apply
  - 2b Train professionals to enter a specific industry
3. Understand nature of industry/occupations
4. Facilitate self understanding
- 5a. Develop employability and contextualised language, literacy and numeracy skills
- 5b. Career management



# Is WIL taught and assessed?



# Does the Rubric Work?

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TABLE 3: DEVELOPMENT OF RUBRIC FOR WIL IN STEM

Category	Level 1	Level 2	Level 3	Level 4	Level 5
1. Technical skills	Basic technical skills	Intermediate technical skills	Advanced technical skills	Expert technical skills	Master level technical skills
2. Problem solving	Basic problem solving	Intermediate problem solving	Advanced problem solving	Expert problem solving	Master level problem solving
3. Communication	Basic communication	Intermediate communication	Advanced communication	Expert communication	Master level communication
4. Teamwork	Basic teamwork	Intermediate teamwork	Advanced teamwork	Expert teamwork	Master level teamwork
5. Leadership	Basic leadership	Intermediate leadership	Advanced leadership	Expert leadership	Master level leadership
6. Innovation	Basic innovation	Intermediate innovation	Advanced innovation	Expert innovation	Master level innovation
7. Creativity	Basic creativity	Intermediate creativity	Advanced creativity	Expert creativity	Master level creativity
8. Critical thinking	Basic critical thinking	Intermediate critical thinking	Advanced critical thinking	Expert critical thinking	Master level critical thinking
9. Analytical skills	Basic analytical skills	Intermediate analytical skills	Advanced analytical skills	Expert analytical skills	Master level analytical skills
10. Mathematical skills	Basic mathematical skills	Intermediate mathematical skills	Advanced mathematical skills	Expert mathematical skills	Master level mathematical skills
11. Engineering skills	Basic engineering skills	Intermediate engineering skills	Advanced engineering skills	Expert engineering skills	Master level engineering skills
12. Design skills	Basic design skills	Intermediate design skills	Advanced design skills	Expert design skills	Master level design skills
13. Project management	Basic project management	Intermediate project management	Advanced project management	Expert project management	Master level project management
14. Business skills	Basic business skills	Intermediate business skills	Advanced business skills	Expert business skills	Master level business skills
15. Industry skills	Basic industry skills	Intermediate industry skills	Advanced industry skills	Expert industry skills	Master level industry skills
16. Professional skills	Basic professional skills	Intermediate professional skills	Advanced professional skills	Expert professional skills	Master level professional skills
17. Personal skills	Basic personal skills	Intermediate personal skills	Advanced personal skills	Expert personal skills	Master level personal skills
18. Transferability	Basic transferability	Intermediate transferability	Advanced transferability	Expert transferability	Master level transferability
19. Workplace behaviors	Basic workplace behaviors	Intermediate workplace behaviors	Advanced workplace behaviors	Expert workplace behaviors	Master level workplace behaviors

- Great discussion point to identify areas considered WIL
- Missing:
  - separating out transferability of skills to non traditional settings
  - basic workplace behaviors



# Where to next?

- Discussion on WIL outcomes at university level
  - Minimum WIL
  - Moving hidden WIL to be explicit WIL
  - Teaching and assessment
  - Role of extracurricular support
- Use of champions to help aid promotion of WIL
- The roll out and reflection on WIL intern unit.



**Course = discipline knowledge + graduate attributes +WIL**

The Science Professional