# WIL in Science Snapshot

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#### WIL supports graduate employability

**Employability** means that students acquire the skills, understandings and personal attributes that make them more likely to secure employment and be successful in their chosen occupations to the benefit of themselves, the workforce, the community and the economy Mantz Yorke 2009

**ACDS WIL in Science** 



National WIL Strategy
by acenadmin | Nov 10, 2015 | Resource |









**Work-integrated Learning (WIL)** is aimed at improving the employability of graduates by giving them valuable practical experience which is directly related to courses being studied at university. WIL also improves the transition from university to work and productivity outcomes for the employer and the economy.

National Strategy on Work Integrated Learning in University Education, 2015



#### **Building WIL in Science**

National WIL strategy

Edwards et al (2015) UA WIL data collection

WIL in Science snapshot

Leadership for WIL (2015-2016)

Successful WIL (2016-2018)

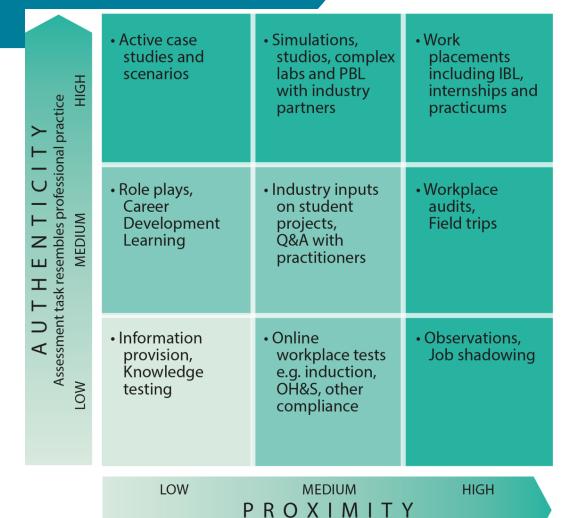
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Deakin University CRICOS Provider Code: 00113B



#### What counts as WIL?

Learning and assessments that 'integrate theory with the practice of work within a purposefully designed curriculum'

- More than placement
- Embedded vs explicit WIL
- Assessed vs experience-only



Assessment task occurs in workplace or with practitioners



Provision of WIL	Participation in WIL	Capability for WIL
What WIL programs are available? Is it core or elective? Are WIL opportunities obvious to students?	How many students participate in WIL? Which students participate in WIL?	Is WIL recognized as important? Are specialist resources available and supported?
<ul> <li>WIL units</li> <li>Course structures</li> <li>Career education</li> <li>WIL completion requirements</li> </ul>	<ul> <li>Enrolment in WIL units</li> <li>Number of placements</li> <li>Use of supports (eg financial support, advice)</li> </ul>	<ul> <li>Named leadership for WIL</li> <li>Number of FTE allocated to WIL in academic or support roles</li> </ul>
Difficult to see WIL embedded inside units and subjects	Requires WIL units to be tagged in student management system WIL enrolment outside course (eg generic WIL units)	Composite roles are hard to dissect

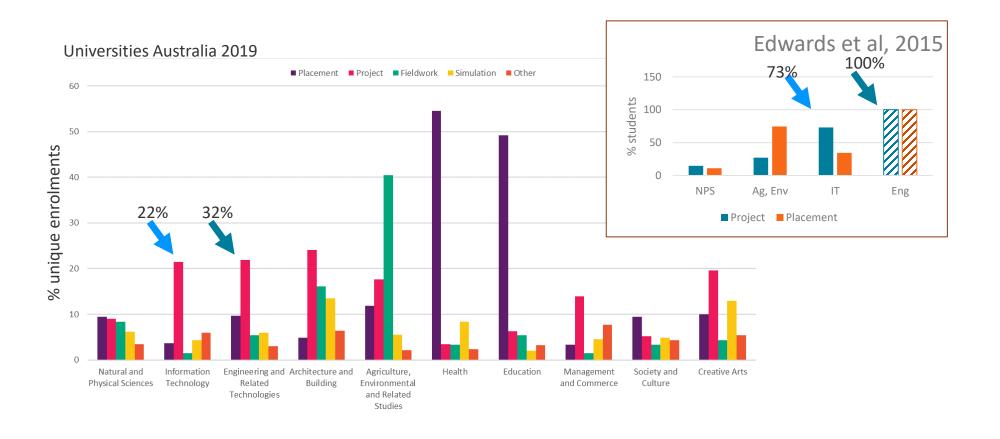


#### **Previous studies of WIL provision**

Work Integrated Learning in STEM in Australian Universities Edwards, Perkins, Pearce and Hong (2015)	Work Integrated Learning in Universities Universities Australia (2019)
Study: 37 universities with STEM degrees Structured interview/questionnaire  -> self-reported data	<b>Study:</b> All universities, all disciplines by FoE Defined WIL as broad categories Require identification of 'WIL' subjects
<ul> <li>Measures:</li> <li>Insights into practice</li> <li>Estimated student participation</li> <li>Range of participation levels between disciplines</li> </ul>	Measures: Enrolments in identified WIL subjects Types of WIL offered by FoE Participation in identified units by FoE and cohort
Challenges: reporting perceptions	Challenges: interpretation of WIL, identification of WIL subjects



#### **Inconsistent findings...**





#### WIL snapshot study 2018-2019

WIL units in B Sc degrees	WIL participation and provision in Science Faculties
<b>Study:</b> 37 universities with B Sc degrees Review of public websites: subjects/courses	Study: 16 universities with B Sc degrees (5 x Go8; 2 x ATN; 2 x IRU; 3 x RUN; 5 x unaligned) Online questionnaire: WIL policy, roles, provision, participation and industry connections
<ul><li>Measures:</li><li>Availability of WIL subjects</li><li>Core vs elective</li></ul>	Measures: Policy content WIL provision: subjects, roles Student participation Industry relationships
Issues: course structures are not obvious, General WIL units not listed Course advising informs students separately	Challenges: interpretation of WIL, identification of WIL subjects



#### WIL units in B Sc degrees

- Most B Sc degrees offered a science placement subject primarily as an elective
- Some degrees include industry projects
- Some degrees include career education

Type of WIL	Status in the degree (number of universities)		
	no science-specific subject	B Sc elective	B Sc core
placement	12	20	5
industry/community project	29	4	4
career education	31	1	5

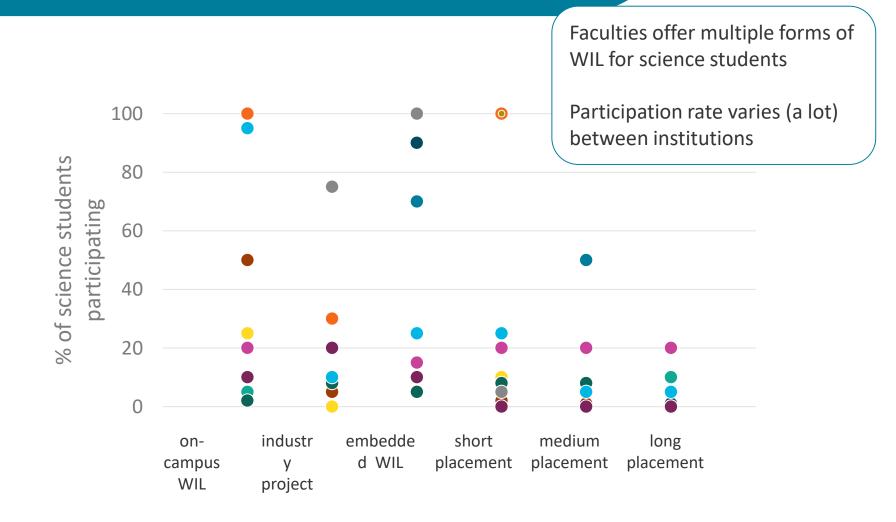


#### **WIL provision in Science Faculties**

Policy	<ul> <li>Most Science Faculties use institutional WIL policies to guide their work (12/16)</li> <li>Most policy focuses on placement management</li> <li>Definitions recognize multiple forms of WIL and are often institutional (9/16)</li> </ul>
Roles	<ul> <li>5 Faculties reported specific leadership roles</li> <li>Specialist roles appear to support student placement (x6) and, rarely, academics (x2)</li> </ul>
Subjects	<ul> <li>10 faculties provided access to WIL units for all students</li> <li>Students may complete multiple WIL experiences</li> <li>WIL may be spread across multiple units</li> </ul>
Resourcing	<ul> <li>9 x faculties reported identified budget for WIL primarily for WIL staff salaries</li> <li>Some combined Faculties noted that WIL costs are shared across multiple disciplines with teams ranging from 1 – 11 FTE</li> </ul>

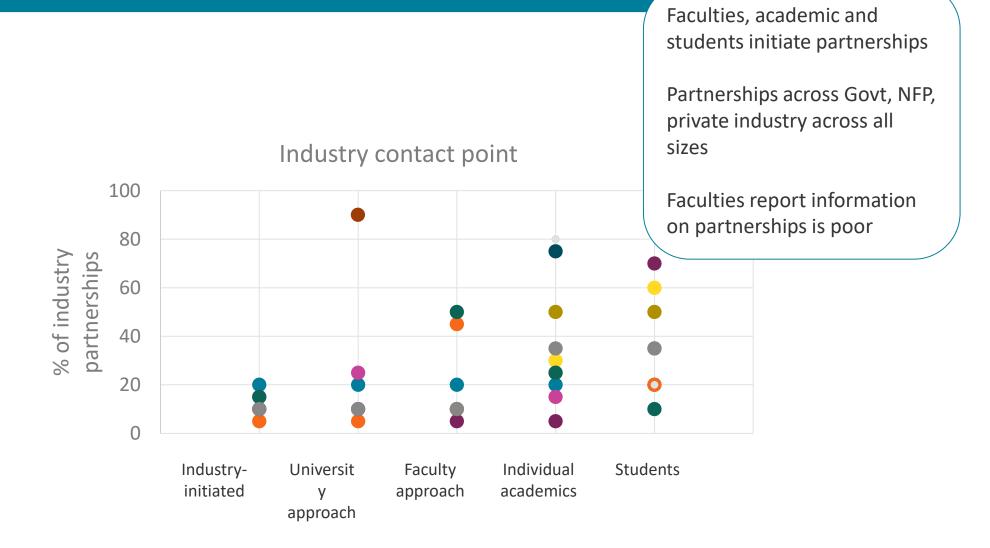


#### Range of participation





#### **Finding industry partners**





#### **Industry contributions**

Industry primarily involved in placement and commissioned projects Options to increase other interactions?

Providing workplace WIL	95%
Providing WIL projects on campus	70%
Assessment of WIL	55%
WIL activity design	30%
Other WIL interactions	50%

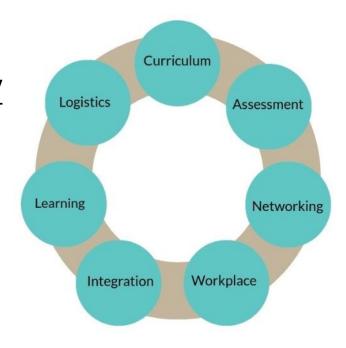


Current resources: WIL Guide for Science <a href="http://www.acds-tlcc.edu.au/wil-guide-for-science/">http://www.acds-tlcc.edu.au/wil-guide-for-science/</a>

- -> design, delivery, evaluation
- -> student perspectives, engagement
- -> organizing, managing, leading
- -> add more case studies?

New forms of WIL: ACEN case studies <a href="https://acen.edu.au/innovative-models/snapshots/">https://acen.edu.au/innovative-models/snapshots/</a>

Building better industry partnerships – new study?







- There is an increasing number of WIL opportunities available to science students. However, some students still do not seem to be interested and do not engage with them. How to increase students engagement?
- How to get industries involved; what reciprocal gains would be necessary for them, for their support
- I look forward to hearing of the results of the final report and any plans to keep the momentum going across the sciences.
- How to assure quality of supervision (good and safe learning experience)
- Where are going to be the new funding streams for projects like this?
- Engaging science academics in authentic learning opportunities beyond the research lab.
- What is best practice? What does a WIL sequence look like longitudinally in a degree? Or is WIL usually done using stand-alone units?



- What is the role of Universities in changing the workforce? How hard should we push?
- Should we make employability subjects compulsory or elective?



# Diversity & equity considerations for Psychology professional placements



Presented by Yasmina Nasstasia

Clinical psychologist

Clinical supervisor/coordinator

University of Newcastle

# Overview of presentation

- ► Background: Professional placement requirements for postgraduate psychology degrees
- ▶ Placement allocation procedures
- ► Equity considerations from a Psychology perspective
- ▶ What equity considerations look like in practice
- ► Challenges to equity considerations

# Professional placement requirements

- Master of clinical psychology is a two year full time professional entry postgraduate psychology degree
- Requires mandatory completion of 1000 clinical training placement hours
- Placement structure set out by APAC accreditation council and PsyBA requirements
- ▶ Placement structure at UoN four/250/32days
- The aim of placements are for students to experience the wide range of professional work undertaken by clinical psychologists to ensure they are suitably prepared for their professional role once they have graduated

# Professional placement requirements

- ► APAC requirements: placements need to be supervised by qualified clinical psychologists who are board approved supervisors
- ➤ Supervisors need to provide a minimum of one hour of supervision for every 15 hours of placement apart from first placement
- NSW Health and government settings supervisors do not require payment long tradition in psychology giving back
- ► Placements are limited resources in high demand from multiple Universities competitive students interviewed

## Support provided to placement supervisors

- ▶ To help ensure optimum placement opportunities supervisors vetted by the University
  - ► Conjoint member of Psychology staff with full access to library
  - ► Full board approved supervision training and supervision masterclasses
  - ▶ In partnership with APS offer a bimonthly supervision journal club
  - ▶ Placement documentation and assessment tools
  - Attend mid placement reviews and help develop student remediation plans
  - Work collaboratively with supervisors to match students to placements

# Placement settings within NSW

- University of Newcastle Psychology Clinic
- ▶ Lake Macquarie Mental Health Team
- Specialist Mental Health Service for Older Persons
- Newcastle Community Mental Health Service
- Mandala Mental Health Inpatient Unit Gosford
- Liaison Psychiatry -John Hunter Hospital
- Centre for Psychotherapy
- ▶ Biripi Aboriginal Medical Clinic Taree
- Central Coast Integrated Pain Service
- ► Hunter Brain Injury Service
- Mayo Private Hospital Taree
- Newcastle Sexual Assault Services
- Child and Family Health Gosford
- South Western Sydney Area Health Service Child and Family Psychology Service

- Inverell Community Health
- Kestrel, Morisset Hospital
- Life Matters Taree
- Mater Hospital, Psycho-oncology
- Support through Early Psychosis Service
- Mental Health Unit for Substance Use
- Hunter Integrated Pain Services
- Hunter Primary Care
- Gertler Psychological Services Sydney
- Maitland Private Hospital
- Drug and Alcohol Services Central Coast
- Warners Bay Private Hospital
- Woy Woy Rehabilitation Centre

#### Equity considerations: Sourcing placements

- ► To ensure equitable access we source student placements rather than ask students to rely on their resources to access placements
- Placements are considered preparatory work and can help enhance future career prospects
  - Not all students have access to the same resources and professional networks
  - By sourcing placements:
    - ► Helps ensure equality of opportunity so all equity groups have equal access to professional placements with supervisors vetted by the University
    - ▶ Helps ensure equality of outcome so all students irrespective of differences are set up to succeed

# Equity considerations when allocating placements

▶ Supervisor availability and placement requirements for the setting



1

#### School of Psychology Faculty of Science The University of Newcastle

**Catalogue of Psychology Placements 2019** 

**Master of Clinical Psychology** 

**Revised 12 February 2019** 





This placement would suit a student on their 3<sup>rd</sup> placement with an interest in health psychology and self-management of chronic illness

No previous experience is required, however given the work is with moderate to severe mental health, it would be highly beneficial if this is not the first placement, unless the student has previous mental health experience

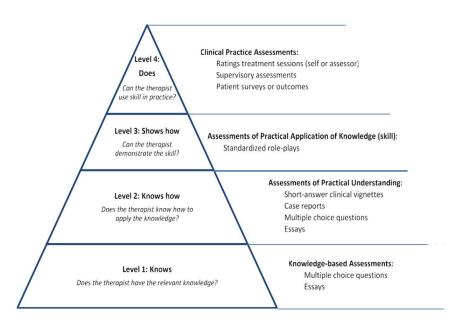
This placement would ideally suit a second, third or fourth year placement Strong interpersonal skills and a passion for working with children is essential Previous experience working with children in a clinical setting is desirable Friendly, professional and efficient work ethic Registered Psychologist with the ability to obtain a Medicare and HICAPS provider number

To be considered for this placement student is required to attend an 8 week Conversational Model training to be offered Feb / March (2018) at the CFP – Monday evenings from 5-7pm – with a view to interested students who complete the training and an interview with myself (Oct 2017), commencing placement in Feb 2018 and starting with two clients in March 2018.

Requirement would be that the student attends half a day per week across a 12-14 month period (5hours per week). At times clients are seen twice weekly so flexibility around spreading the five hours per week across two timeframes a week would be optimal. My days of work are Monday, Tuesday and Thursday – preferably placement would be Tuesday and / or Thursday – hours to be arranged with student.

# Placements are allocated based on three key considerations

▶ Students placement requirements and their developmental stage



2

# Placements are allocated based on three key considerations

▶ Student availability and any equity considerations



3

# Equity groups in Psychology

- ► Gender (more females accepting training places)
- ► Low SES and social disadvantage issues
- ▶ Indigenous, CALD and International students
- Students with a disability
- ► LGBTIQ
- ► Faith tradition
- ► Multiple equity groups gender, language, culture, sexuality, race

Each of these groups potentially requires consideration or support when matching student to placement

## Equity considerations: A psychology perspective

- Meet with students at the start of their degree
  - ► Actively seek out any relevant information that is important for placement consideration
  - 'What is important for me to be aware of when placing you'?
  - Begin conversation about any potential equity and diversity considerations early
  - ▶ Jointly develop a placement plan not fixed can change
  - ► Conversation with the supervisor prior to allocation process
  - Students are motivated to attend placements and will work hard to make this happen

# What do equity considerations look like in practice

- Different equality groups may require different considerations
- With more females accepting training places brings into consideration pregnancy, maternity, childcare, family commitments, carers
  - May require atypical working pattern and paths through training
  - Atypical paths through training are negotiated on a case by case basis
  - ▶ Leave of absence, part time study load, local area placements
- Low SES and social disadvantage
  - ▶ Travel and accommodation local area placements
  - ► Flexibility, paid placement
- Disability
  - ▶ May require an adjustment plan developed with disability services
  - ► Cerebral palsy speech impediment work with supervisor

## Challenges to equity considerations

- Limited placements ultimately students are interviewed by supervisors and they decide who they will accept on placement
- Supervisor insensitivity to diversity are biased or lack of awareness despite goals to promote respectful and equitable psychological services are reflected in the psychology ethical codes both nationally and internationally
- Supervisors may lack awareness or training to address the needs of a diverse student body and assign working with students from diverse equity groups as outside their area of competence or values
- Limited placement opportunities e.g., therapeutic models at all available eating disorder clinics may require eating diverse meals with clients

## Challenges to equity considerations

- Attitudinal barriers from clients themselves leading to discriminatory practices e.g., will not work with a student who has a speech impediment or is visibly different
- ➤ Visible (observable behavioural e.g., speech impediment) vs invisible (physical or mental health issues) disability and what students will and will not disclose disability accommodations cannot be put in place
- ► There is a social stigma associated with having a disability which can undermine a students confidence not all students may disclose or disclose this later
- Perception from the supervisor that reasonable accommodations may create more work for the supervisor - or student may no be able to fulfil training obligations

## Challenges to equity considerations

- Inaccessible training environments outside of the control of the supervisor more to do with building design (wheel chair ramp)
- ▶ Need to be clear what is avoidance or lack of skill or competency vs what is a genuine equity issue
- ► Can take juggling and be resource intensive

## Challenges to equity considerations

- ▶ Despite these challenges equity considerations give parity in program outcome, participation and accomplishment and give students an equal opportunity to access and do well on placement
- ► It recognises and values differences promoting a sense of belonging, respect, value and optimal achievement for all of our students





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# WORK INTEGRATED LEARNING IN SCIENCE

# ACDS Learning and Teaching Leaders Conference 2019

Day 2 Friday 19<sup>th</sup> July 2019 Newcastle University City Campus (NEWSPACE) Hunter St and Auckland St Newcastle, NSW 2300

Dr Scott Sleap

# ABOUT THE PRESENTER



**Dr Scott Sleap** PhD (Environmental Engineering)

- Former Program Director Department of Defence Schools Pathways Program, Hunter ME Program
- Regional Development Australia Hunter, Senior Advisor
- University of Newcastle Conjoint Senior Lecturer School of Mathematical and Physical Sciences
- University of Newcastle Casual Senior Lecturer School of Engineering
- Cyber Security Network NSW Ambassador
- NSW Department of Education, Learning and Teaching Directorate



# WHY WORK INTEGRATED LEARNING?

#### **Student Benefits**

- develop their employability skills
- Improve their potential for employment
- advance their theoretical knowledge and practical skills
- engage in teamwork, problem posing and solving, and self management



# WHY WORK INTEGRATED LEARNING?

#### **Industry Motivations**

#### Recruitment

- helps industry recruitment
- determines if a potential recruit fits into the **culture** of the workplace

#### Social

- give back to the industry or profession
- to improve their corporate image

#### **Business Advancement**

- being better able to recruit graduates in the future
- access to new thinking and ideas based on emerging research gained through deeper ties with universities



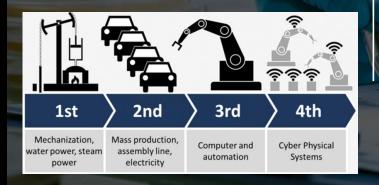
### WHAT DOES INDUSTRY WANT FROM GRADUATES?



SKILLS REQUIRED TO THRIVE IN 2020 AND BEYOND

- Complex problem solving
- Critical thinking
- Creativity
- People Management
- Coordinating with others
- Emotional intelligence
- Judgement and decision making
- Service orientation
- Negotiation
- Cognitive flexibility

# EMPLOYABILITY SKILLS FOR INDUSTRY 4.0



- Communication that contributes to productive and harmonious relations across employees and customers
- Teamwork that contributes to productive working relationships and outcomes
- Problem solving that contributes to productive outcomes
- Initiative and enterprise that contribute to innovative outcomes
- Planning and organizing that contribute to long and short-term strategic planning
- Self-management that contributes to employee satisfaction and growth
- **Learning** that contributes to ongoing improvement and expansion in employee and company operations and outcomes
- Technology that contributes to the effective carrying out of tasks





POTENTIAL FOR WORK INTEGRATED LEARNING Summer Vacation Program

They're 20x more likely than other applicants to be hired into a full-time position

# TIPS FOR WORKING WITH INDUSTRY

- Build positive relationships
- Clearly communicate expectations
- Articulate the benefits to industry of the partnership (Recruitment, Social)
- Only send appropriate students
- Deliver on promises (Wombats)



## **HOW TO CONNECT** WITH INDUSTRY

#### **INDUSTRY GROUPS**

**Australian Industry Group** - 10 Offices

**A**igroup

https://www.aigroup.com.au/contact/

**Regional Development Australia** – 52 Offices

https://www.rda.gov.au/my-rda/find-my-rda.aspx

**Australian Chamber of Commerce and Industry** 

https://www.australianchamber.com.au/

START-UPS AND ACCELERATORS **Fishburners** 

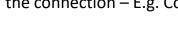
https://fishburners.org/



ResTech

ResTECH

https://www.restech.net.au/





## **QUESTIONS?**

## **CONTACT**

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