CRC for Mental Health

CRC students: The next generation of innovative, collaborative problem solvers?

CRC Programme Objectives

- Equip students with the skills and attributes to be productive in the Centre's field
- Promote a cooperative approach to research and education in the Centre's field
- Ensure that the Parties with their differing disciplines and backgrounds add value to each other

CRC for Mental Health

“CRC education programs act as innovation hubs”

- We have the flexibility and interest to try novel approaches to complex problems for industry
- We can innovate, pilot and transition successful education programs
- Our students are key part of each CRCs legacy

CRC for Mental Health

CRC for Mental Health

- Seeks to discover and validate biomarkers for mental illnesses
- 19 Participant organisations
  - 4 Universities
  - 4 Hospitals / health care / aged care industry
  - 4 Small-to-medium enterprises
  - Pharmaceutical partners

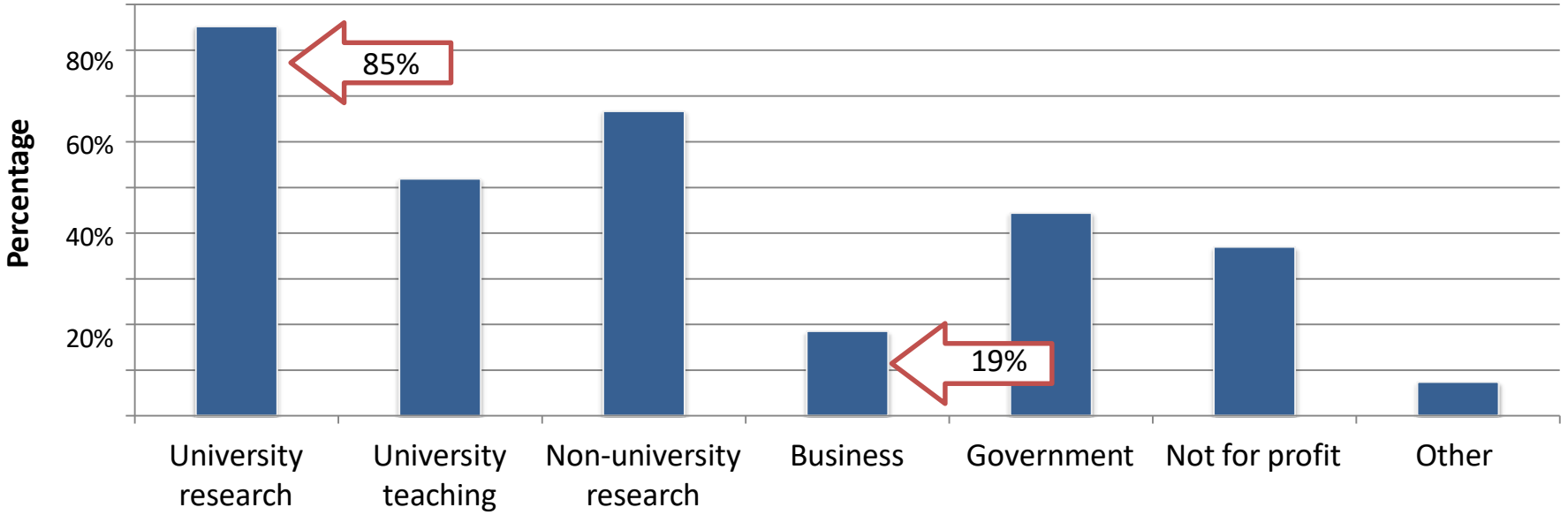
CRC for Mental Health

Challenges in our area

- Majority of PhD (>80%) will not continue in academic careers
- Office of Chief Scientist, employers report PhD graduates lack practical experience
- Laboratory based PhD students can be isolated – from each other and the communities their work can benefit

CRC for Mental Health

Career Dreams vs. Career Realities



CRC for Mental Health

What we want for our students

- A connected, collaborative cohort
- Empathy with people affected by mental illnesses
- Confidence, willingness, skills and networks to engage in multidisciplinary research and translational activities
- Demonstrated experience and success working cooperatively with researchers and non-researchers

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Developing a cohesive cohort… quickly

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Annual PhD workshop

- 1.5 days in duration, gather all students in one location
- Themed days developed in collaboration with input from our Participants and students
- Incorporates development and pitch of collaborative project

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Themes

- What do you need to be a “successful scientist”?
- Research translation
- Communicating as a scientist
- What is a successful career and how do you get one
- How to turn research discoveries into new products and methods of practice … without hurting anyone, getting sued or going bankrupt
- How to survive and thrive in your PhD and beyond

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Problems …

- Students tended to drift post-workshop
- Six months until next formal contact
- Limited collaboration seen in group between formal events

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Videoconferences

CRC for Mental Health

Monthly professional development videoconferences

- Alternates between skill development and awareness of potential career paths and development that students can be doing now to trial or build experience in that area

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Monthly videoconferences

- Speakers have included: management consultant, radio host, science communicator, university lecturer, accountant, research staff member (industry)
- Introduction of recording

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Student involvement in videoconferences

- As audience
- Students as guests to increase value of external training/events they've attended
- Asking the questions
  - During the sessions (interactive)
  - Preparing beforehand to build a relationship with guest (networks!)

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Collaborative Writing Program

CRC for Mental Health

CRC for Mental Health

Aims

Provide dedicated writing time/space

Enhance workforce capability

Reduce mental health risk

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Workforce Capability

- Interpersonal and Leadership Skills
- Peer Mentorship and Consultation
- Active Problem Solving
- Networking and Collaboration
- Project Management and Organisation
- Self-management to Work Effectively

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Research Policy 46 (2017) 868–879

Contents lists available at ScienceDirect

Research Policy

journal homepage: www.elsevier.com/locate/respol

Work organization and mental health problems in PhD students

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PhD student mental health:

50% experience

psychological distress

30% are at risk of **depression and anxiety**

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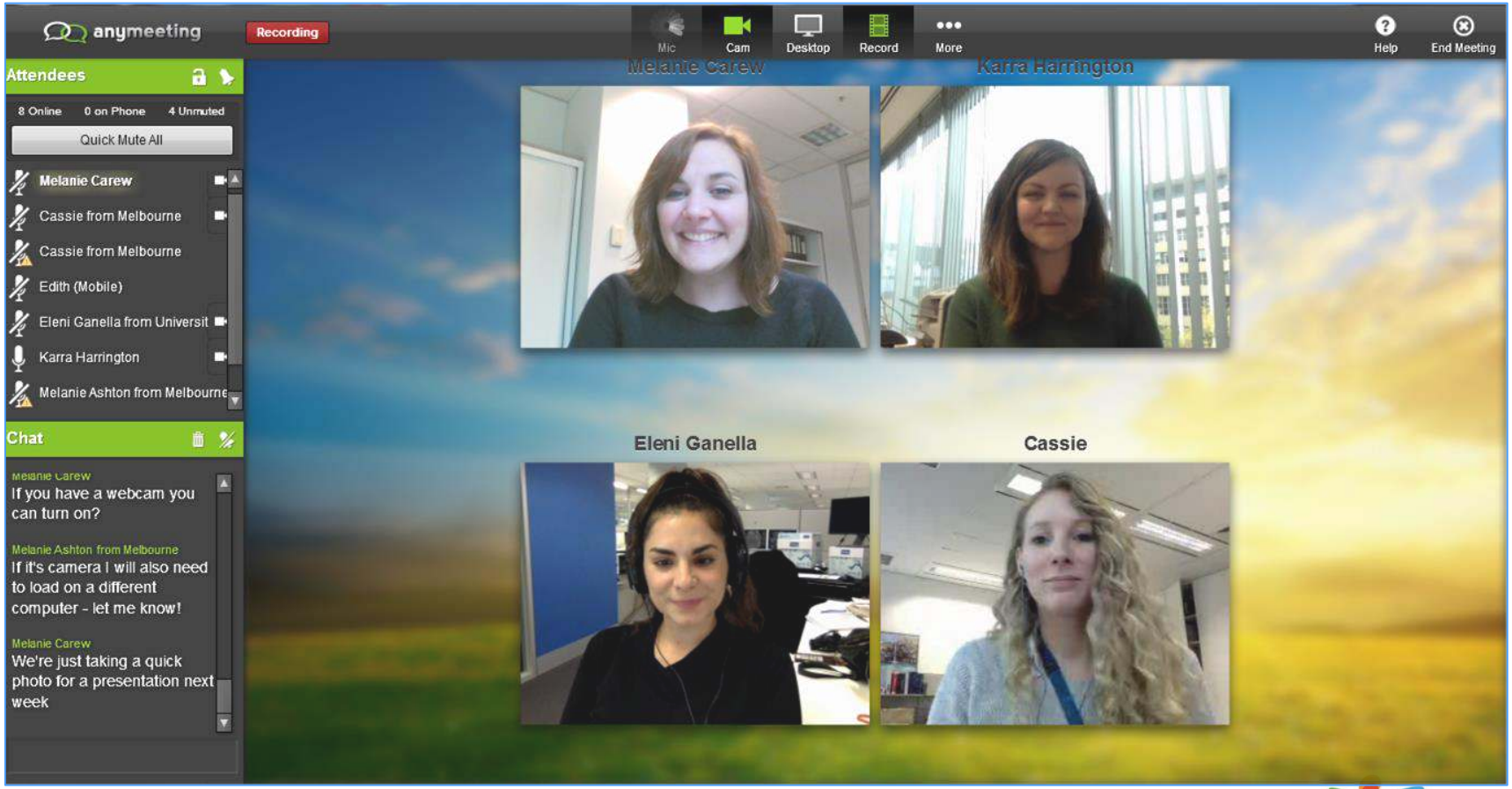

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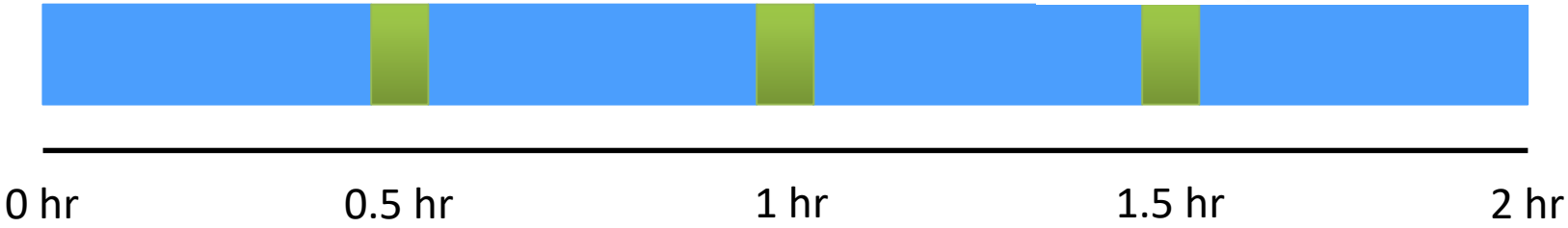
Session Format



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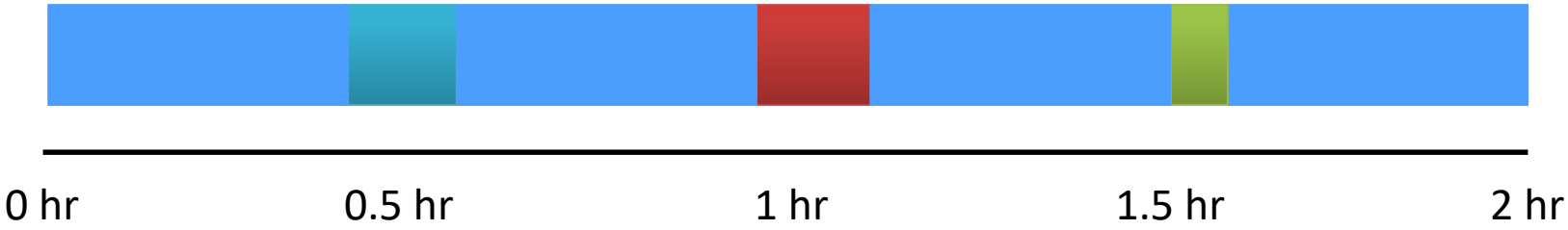
CRCMH Collaborative Writing Session



Writing Block – 20 mins

Break - 5 mins

Facilitated Discussion - 10 mins

Discussion Topic - 10 mins

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*"Attending the writing group ensures I set aside good **quality dedicated writing time**, and also **learn from my peers** about what they're going through. It helps to be able to **normalise the lows and highs** of a PhD among like-minded people. The focus and structure of the time actually writing means I always come out having **made progress** on my thesis, even during times I have been struggling with **motivation**."*

- Melanie Ashton, CRC for Mental Health PhD Candidate

CRC for Mental Health

" The usual demands of research sometimes make it ***difficult to allocate enough uninterrupted time for writing****, but the group has been instrumental in providing an opportunity to schedule this in on a regular basis. Also as a part of this programme, the* ***opportunity to connect*** *with other research students who are working in similar fields has been invaluable, to* ***share experiences****, and* ***support each other*** *on our journeys."*

- Michelle Tegg, CRC for Mental Health PhD Candidate

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Activity

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THE PLANS:

THE PLAN YOU TELL YOUR ADVISOR : "I'M GOING TO BE A PROFESSOR AT A MAJOR RESEARCH UNIVERSITY AFTER I GRADUATE."

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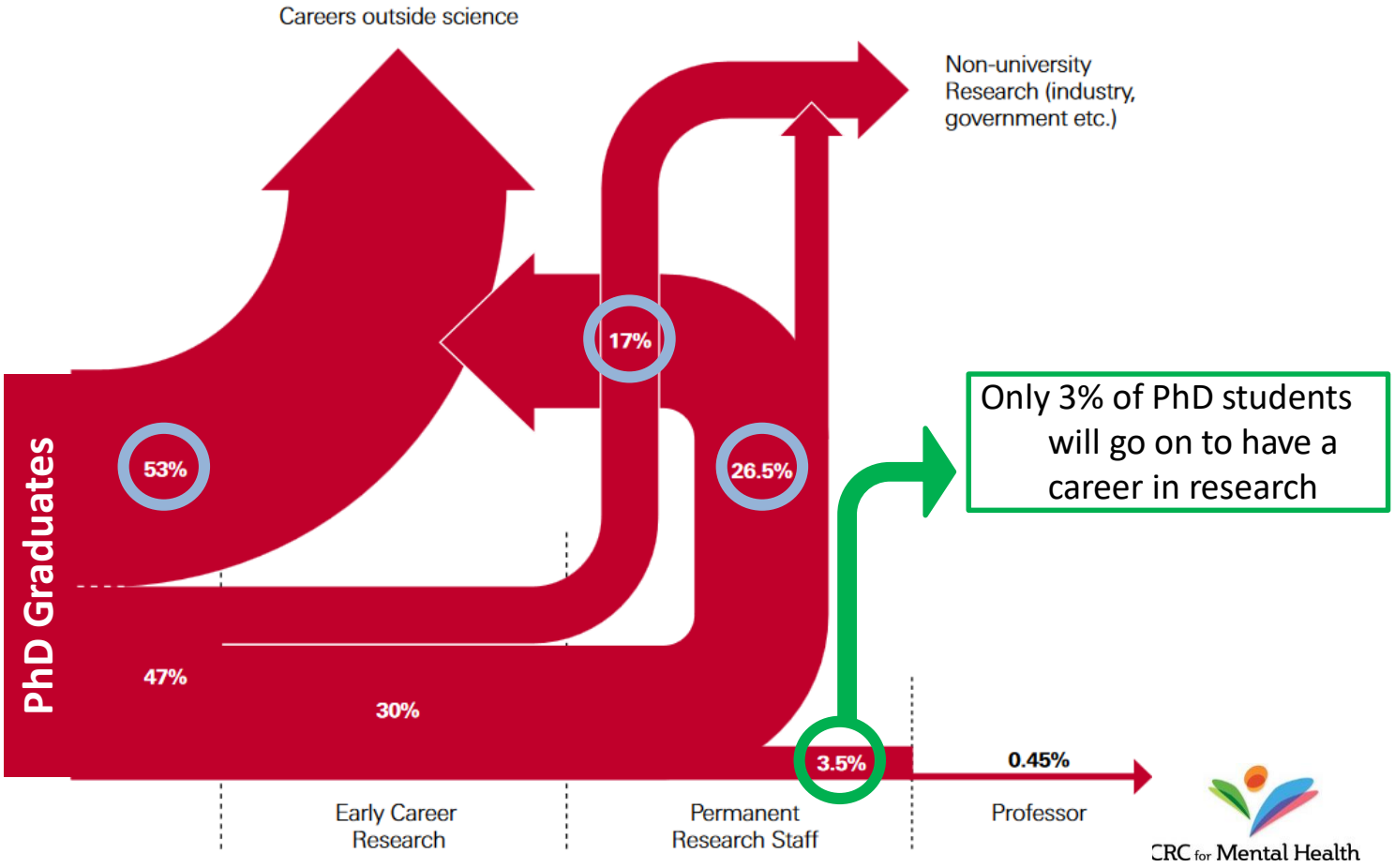
Career Realities



What do employers want?

- Where respondents did not employ PhDs, it was because:
  - *"They lacked practical experience"* (50% of respondents)

- And the quality of applications received from PhD graduates, showed a
  - Lack of business understanding (36% of respondents)
  - Lack of general workplace experience (35% of respondents)

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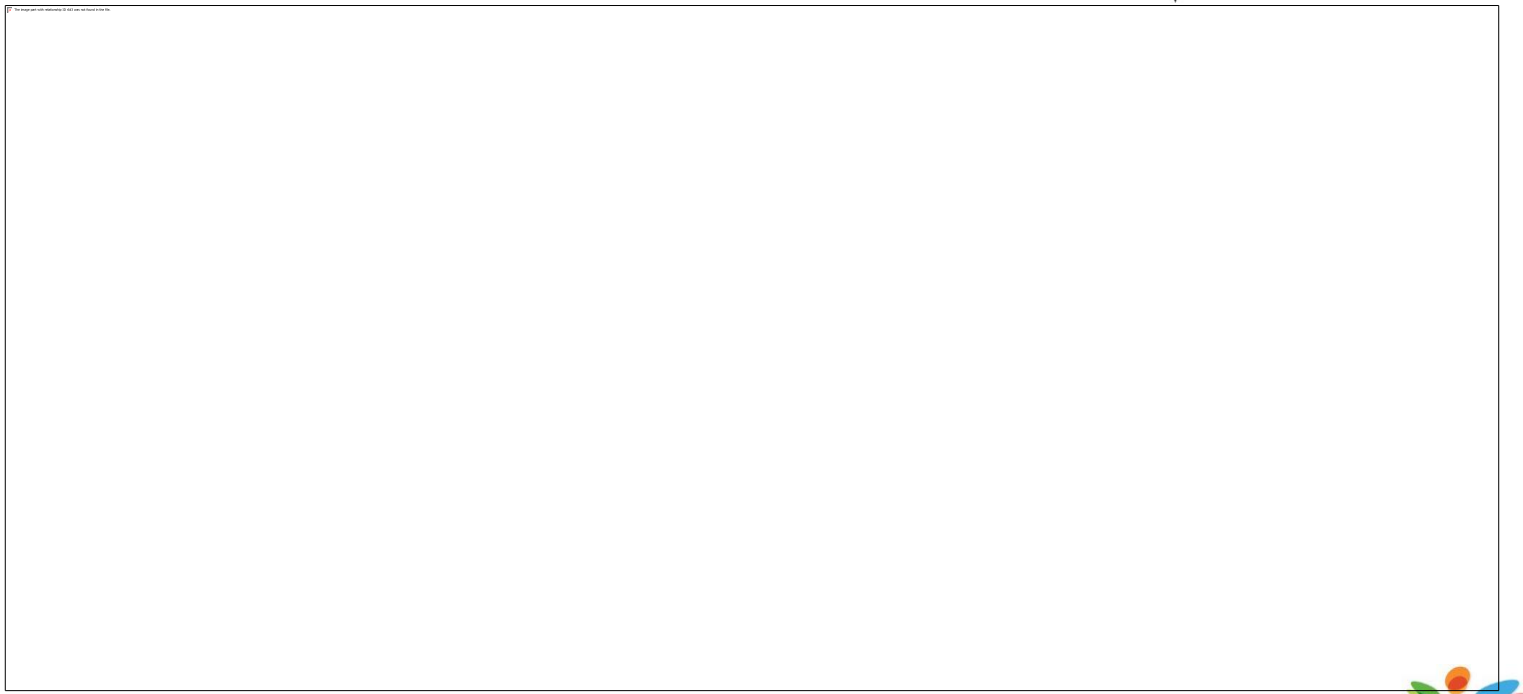
Short consulting projects – Publico program

- Entirely voluntary
- 6 – 8 week project in January to February each year
- Benefits to the ‘client’ (business or not for profit)
  - Students undertaking a real business project that they need solved
  - Businesses and Not-for-profits gain exposure and some understanding of the benefit of scientific training and hiring science graduates

CRC for Mental Health

The Reach Foundation

Deliver school and community programs to improve mental health and wellbeing



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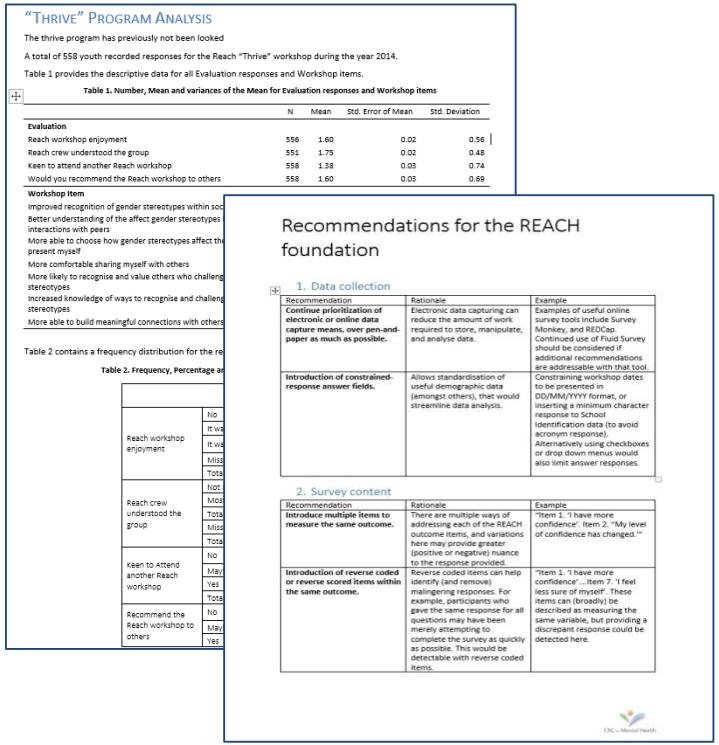
The Reach Foundation

In 6 weeks, we:

- Assessed the needs of the organisation
- Assessed and cleaned survey data
- Undertook a complete analysis of the data and produced a report on the findings
- Provided recommendations for future program evaluations
    - better survey question wording,
    - use of available (free) software to collate data



"THRIVE" PROGRAM ANALYSIS

The thrive program has previously not been looked

A total of 558 youth recorded responses for the Reach "Thrive" workshop during the year 2014.

Table 1 provides the descriptive data for all Evaluation responses and Workshop items.

Table 1. Number, Mean and variances of the Mean for Evaluation responses and Workshop items

	N	Mean	Std. Error of Mean	Std. Deviation
Evaluation				
Reach workshop enjoyment	556	1.60	0.02	0.56
Reach crew understood the group	551	1.75	0.02	0.48
Keen to attend another Reach workshop	558	1.38	0.03	0.74
Would you recommend the Reach workshop to others	558	1.60	0.03	0.69
Workshop Item				
Improved recognition of gender stereotypes within soc				
Better understanding of the affect gender stereotypes interactions with peers				
More able to choose how gender stereotypes affect th present myself				
More comfortable sharing myself with others				
More likely to recognise and value others who challeng stereotypes				
Increased knowledge of ways to recognise and challeng stereotypes				
More able to build meaningful connections with others				

Table 2 contains a frequency distribution for the re

Table 2. Frequency, Percentage a

Reach workshop enjoyment	No	
	It wa	
	It wa	
	Miss	
	Tota	
Reach crew understood the group	Not	
	Mos	
	Tota	
	Miss	
	Tota	
Keen to Attend another Reach workshop	No	
	May	
	Yes	
	Tota	
Recommend the Reach workshop to others	No	
	May	
	Yes	

Recommendations for the REACH foundation

1. Data collection

Recommendation	Rationale	Example
Continue prioritization of electronic or online data capture means, over pen-and-paper as much as possible.	Electronic data capturing can reduce the amount of work required to store, manipulate, and analyse data.	Examples of useful online survey tools include Survey Monkey, and REDCap. Continued use of Fluid Survey should be considered if additional recommendations are addressable with that tool.
Introduction of constrained-response answer fields.	Allows standardisation of useful demographic data (amongst others), that would streamline data analysis.	Constraining workshop dates to be presented in DD/MM/YYYY format, or inserting a minimum character response to School identification data (to avoid acronym response). Alternatively using checkboxes or drop down menus would also limit answer responses.

2. Survey content

Recommendation	Rationale	Example
Introduce multiple items to measure the same outcome.	There are multiple ways of addressing each of the REACH outcome items, and variations here may provide greater (positive or negative) nuance to the response provided.	"Item 1. 'I have more confidence'. Item 2. "My level of confidence has changed.'"
Introduction of reverse coded or reverse scored items within the same outcome.	Reverse coded items can help identify (and remove) malingering responses. For example, participants who gave the same response for all questions may have been merely attempting to complete the survey as quickly as possible. This would be detectable with reverse coded items.	"Item 1. 'I have more confidence'....Item 7. 'I feel less sure of myself'. These items can (broadly) be described as measuring the same variable, but providing a discrepant response could be detected here.

Mercy Health

Promoting mental health and wellbeing within residential aged care facilities

Mercy Health
Care first

In 6 weeks, we:

Undertook a literature review of the use of virtual reality as reminiscence therapy in the aged care setting

Developed a proposal for a pilot study

Provided practical recommendations to consider before commencing a project

- informed consent
- selecting end-points
- defining target populations

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Mercy Health

Mercy Health

Care first

CRC for Mental Health

What I can now demonstrate to employers

Project management and leadership

- Led a small team
- Delivered projects to stringent deadlines
- Ability to work in a diverse team

Business understanding

- Used data analysis to inform strategic advice to the client
- Adapted my scientific skills to research problem, identify potential solutions and prioritise these according to the client's priorities and resources
- Ability to influence change in the client practices

Communication skills

- Communicated advice which impacted business decisions
- Experience presenting to senior management of clients
- Preparation of formal reports to client

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How to implement the consulting projects

	Pre-project	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Post-project
CRCMH	Recruitment of students and client with suitable project	Attendance at client meeting			Progress meeting with students	Review of presentation prior to client meeting	Attendance at client meeting			Contact with client to seek immediate feedback (Month 1) and ongoing impact (Month 3). Communication of these to students.
Students		Client meeting and election of student to act as project manager	Production of client brief	Project work	Project work	Project work	Presentation to client	Project work to revise after client feedback (optional)	Finalisation of project (if did not occur at week 6)	
Clients		Briefing given to student team	Review of student-prepared brief				Acceptance of report and presentation from students – opportunity to request amendments (optional)		Acceptance of final report (if did not occur at week 6)	Written immediate feedback to students (Month 1) and verbal feedback on ongoing impact (Month 3)

CRC for Mental Health

Volunteering Victoria

Providing resources to over 300 member organisatio

CRC for Mental Health

	Pre-project	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Post-project
CRCMH	**Recruitment** of **students and client** with suitable project during the annual CRC workshop	Attendance at meeting with **Volunteering Victoria**			**Progress meeting** with students	**Review** of **presentation** prior to Volunteering Victoria meeting	**Attendance** at Volunteering Victoria meeting		**Contact** with Volunteering Victoria to seek immediate feedback (Month 1) and ongoing impact (Month 3). **Communication** of these **to students**.
Students		Election of students to act as project managers and meeting with **Volunteering Victoria**	Production of Volunteering Victoria **brief** by project teams.	**Project Group 1- Grants Team:** • Conducted a full review of all unsuccessful grant applications • Developed a grant proposal strategy list (which and whether to apply for grants) • Started a grant database for upcoming funding opportunities • Put together a generic and scalable grant submission **Project Group 2- Volunteers Team:** • Review of current research that focuses on the psychology of volunteers and their motivations • Review existing strategies for retention of volunteers • Identifying methods to target volunteer groups to recruit, retain and motivate • Identified practical strategies and best practice recommendations when designing an effective volunteer program			**Presentation** to Volunteering Victoria	**Project Group 1- Grants Team:** **Finalisation** of project (if did not occur at week 6) **Project Group 2- Volunteers Team:** Project work to **revise** after receiving feedback from Volunteering Victoria (optional)	
Volunteering Victoria		**Briefing** given to student team	**Review** of student-prepared **brief**				**Acceptance of report and presentation** from students – opportunity to request amendments (optional)	**Acceptance** of final report (if did not occur at week 6)	Written immediate **feedback** to students (Month 1) and verbal **feedback** on ongoing impact (Month 3)

How is it different to other industry projects

- relevant work to your CRC
- shorter time frame
- don’t embed in the organisation
- “consultant” to a small organisation
- submission of deliverables/conferral experience

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THE REAL PLAN : LOOK FOR CAREER ALTERNATIVES.

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THE SECRET PLAN : BECOME A BAKER/ROCKSTAR/WRITER.

CRC for M[illegible]
WWW.PHDCOMICS.COM

THE PLANS:

THE PLAN YOU TELL YOUR ADVISOR : "I'M GOING TO BE A PROFESSOR AT A MAJOR RESEARCH UNIVERSITY AFTER I GRADUATE."

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THE SECRET PLAN : BECOME A BAKER/ROCKSTAR/WRITER.

JORGE CHAM © 2012

Activity

What's an area you want to learn more about or improve this year?

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Communities of practice:

What do you want to get better at this year?

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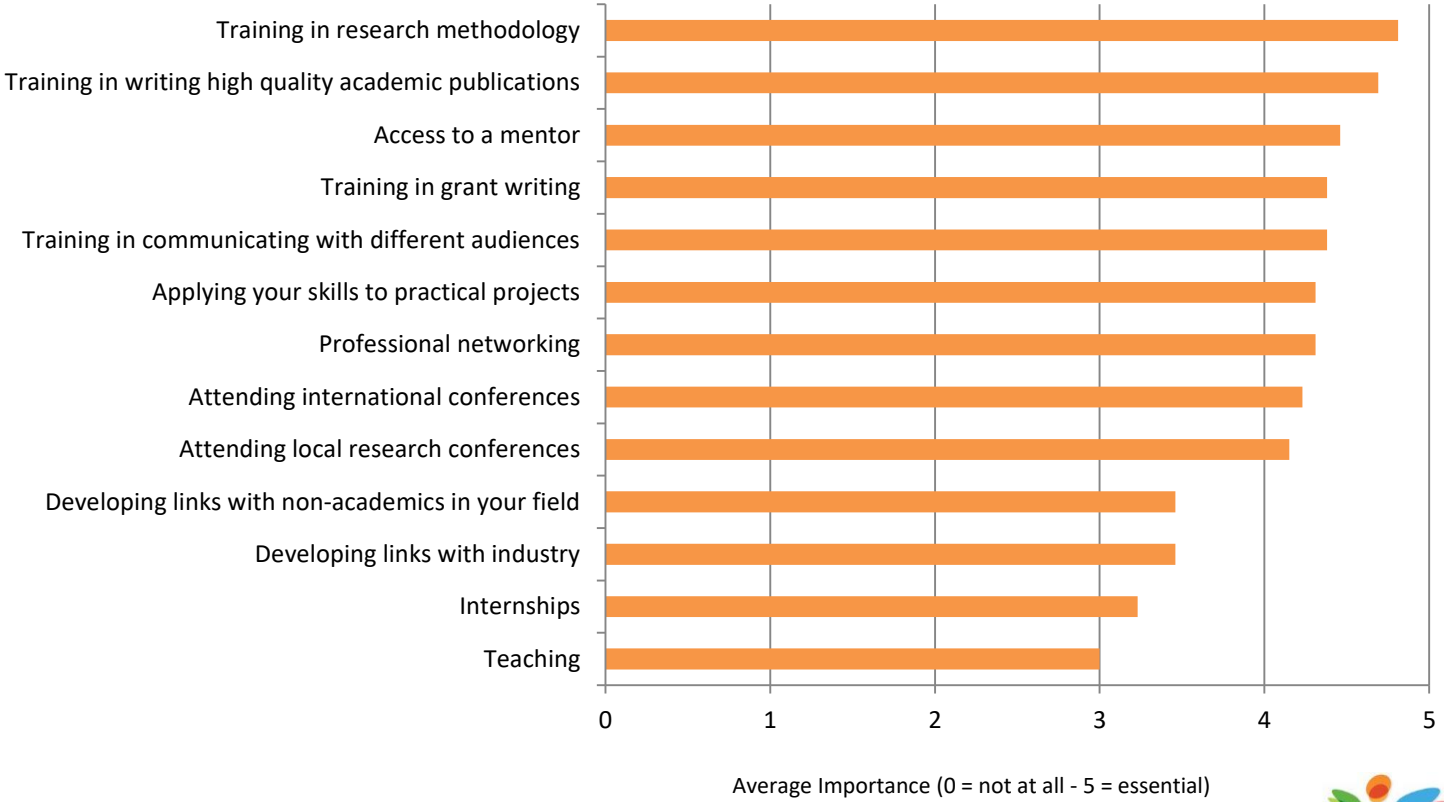
Importance of various skills and experiences in becoming an effective researcher



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Communities of practice

- What do you already know that can help the group?
- What are your individual networks that can help the group learn or practice?
- How will you work together to improve your skills over the next year?
- How will you share your knowledge with the wider group?

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Community of practice – communications

- Meet monthly to practice verbal and written communication skills
- Individual members have sought out media training, developed awards applications, written general articles about their PhD experience – importantly, they then tell their peers what they learnt

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Community of practice – time management

- Monthly emails
  “My first task will be [achievable goal] which I want to finish by [timeframe]. If I achieve this, I want to [reward]
- Importantly accountability to group
  “No reward for me this month. I am now determined to get this done for next month – I’ve allocated specific time so I can complete it”

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Community of practice – career focus

- Group emails which circulate articles of interest
- Articles with broader appeal also posted to CRCMH LinkedIn group
- Individual members have discussed their own career goals and report back on how they're pursuing these

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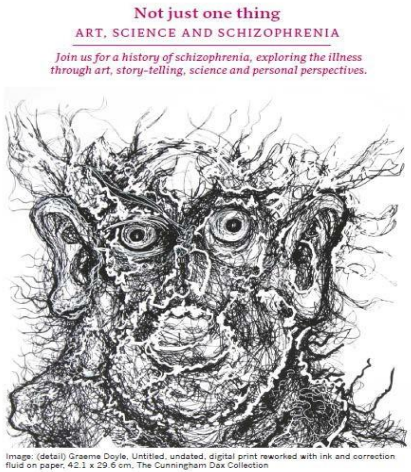
Community education

Topic chosen after consultation with researchers and endusers



Panel: Researcher, clinician/enduser, person with experience of mental illness
Host: Journalist

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New audience for Participants

- Fringe festival exposure to 250,000 people, ~60% had not attended science event in past year

New funding source: Inspiring Australia

Strong focus on endusers

- Clinical, mental illness advocacy and community endusers

Media & social media attention: Broadcast reached ~36,000 people

Government relations: Interest from Minister

Schizophrenia not one thing. Join us today or hear on show later bitly.com/QkeMsH+
All in the Mind — 5 days ago

#Melbourne Be a part of this fascinating exploration of illness through art, science and personal perspectives ow.ly/eezIR
AroundYou — 6 days ago

RT @allinthemind: Listen to show on art science and schizophrenia if you missed it and look at gallery http://bitly.com/SADVom #abcrn @RadioNational
SchizophreniaRI — Thu, Nov 08 2012 09:44:41

Listening to All In The Mind - Program podcast (Art, science and schizophrenia) http://www.abc.net.au/radionational/programs/allinthemin science-and-schizophrenia/4340806
Hope — Thu, Nov 08 2012 05:05:05

Inspiring AUSTRALIA

MELBOURNE FRINGE FESTIVAL '12

CRC for Mental Health

Schizophrenia (2012)

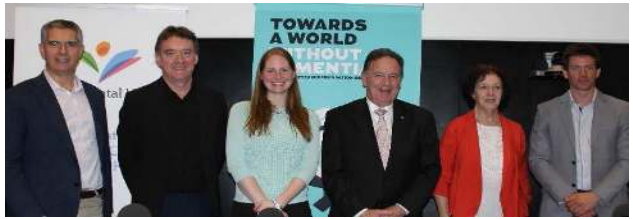
Alzheimer's disease (2013)

Depression and dementia (2013)

Embedding research in aged care (2014)

Parkinson's disease (2015)

Diagnosing dementia (2015)



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Developing empathy

Sharing knowledge in aged care

"When starting her ministry in Dublin, Catherine McAuley reached out and brought together people from diverse backgrounds to further her dream of bringing mercy to the lives of others. It is wonderful to see our team at Mercy Place Parkville carrying on the spirit of inclusion and collaboration through their partnership with postgraduate students in a program that increases the knowledge of both our staff and the students."

Sr Berneice

Mercy Place Parkville is helping the scientists of the future understand health and wellbeing in aged care through an innovative knowledge exchange program.

Since 2012, Mercy Place Parkville has been collaborating with the Cooperative Research Centre (CRC) for Mental Health to host visits during which postgraduate science students spend time with aged care workers to discuss the rewards and challenges of supporting residents' health and wellbeing.

In November 2015, staff and residents at Mercy Place Parkville hosted a small group of PhD students who are conducting research into dementia. The visit enabled students to share the latest research and how it can be used within the aged care sector, and to learn from staff and residents about their day-to-day experiences.

"These visits are incredibly motivating for our students," says Melanie Carew Head of Education at the CRC for

Learning Manager Aged Care Kerryn Wong with PhD student Edith Drajkopyl, CEO of CRC for Mental Health Ian Cooke, PhD students Jenelle Baker, Pierre Dao (at back) and Kerra Harrington, Communication and Education Manager, CRC for Mental Health Melanie Carew, and Service Manager Mercy Place Parkville Emma Male

8 | Our Voice

CRC for Mental Health

Outcomes

- 66% of students reported taking an action as a result of the visit
  - Uptake of volunteer work, discussing the visit with their peers, reading more about aged care or how research is taken up into clinical practice

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Outcomes of visits

- *"It really opened my eyes into the gap between research and reality"*
- *"This has given a different perspective on the illness I am studying, that is, a perspective from a personal level rather than on the neurochemistry"*
- *"I am currently moving fields and would consider a career in aged care where I wouldn't have previously"*

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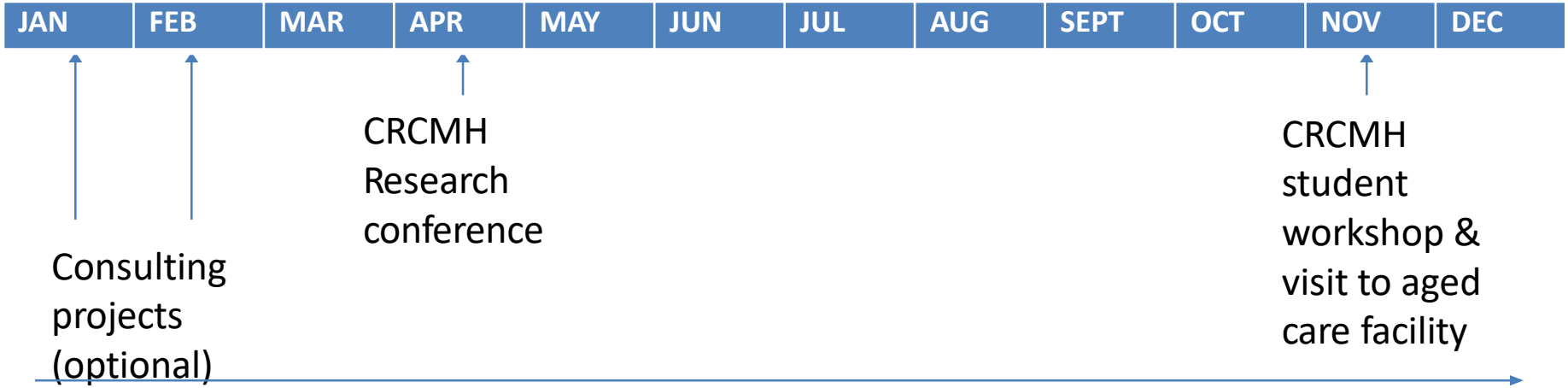
CRCMH touch points with students



Collaborative writing, professional development workshops, one to one mentoring, communities of practice

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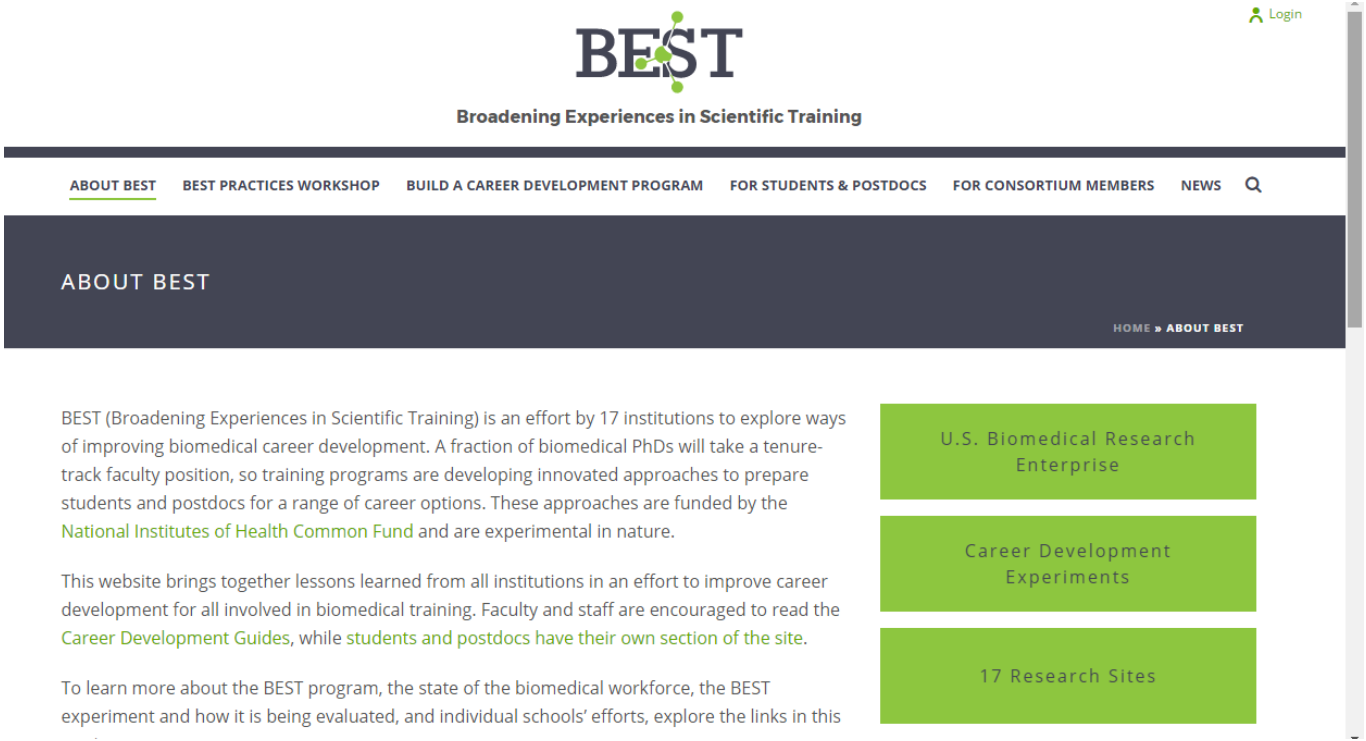
International model



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Evaluation

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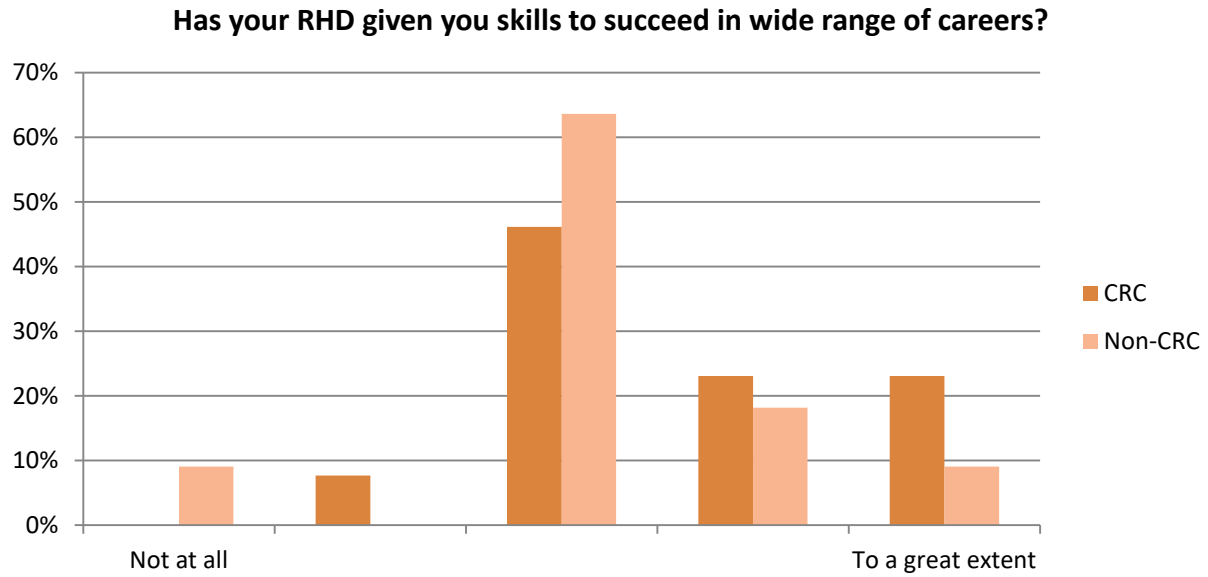
~ 85% of CRCMH students indicated that involvement in the CRC has given them skills and capabilities that they would not have gained otherwise

	Not at all	To a small extent	To a moderate extent	To a large extent
Expansion of skills beyond the purely academic	0%	8%	23%	69%
Insight into the commercial world	0%	23%	31%	46%
Establishing a network of contacts	0%	0%	15%	85%
Opportunity to work on finding solutions to 'real world' problems	0%	23%	15%	62%

- CRCMH students felt more strongly that their research higher degree experience had given them the skills necessary to succeed in a wide range of careers



CRC students avg: 3.82
Non-CRC students avg: 3.1

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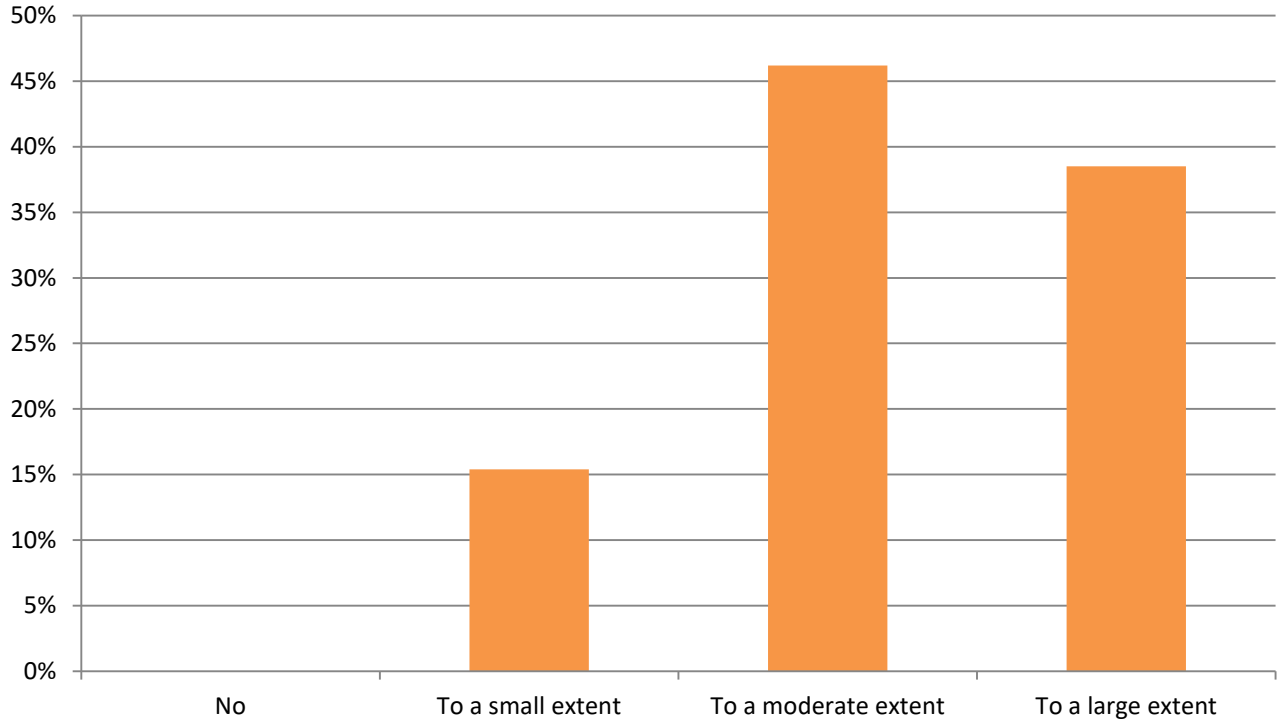
Will involvement with CRC provide career advantage?



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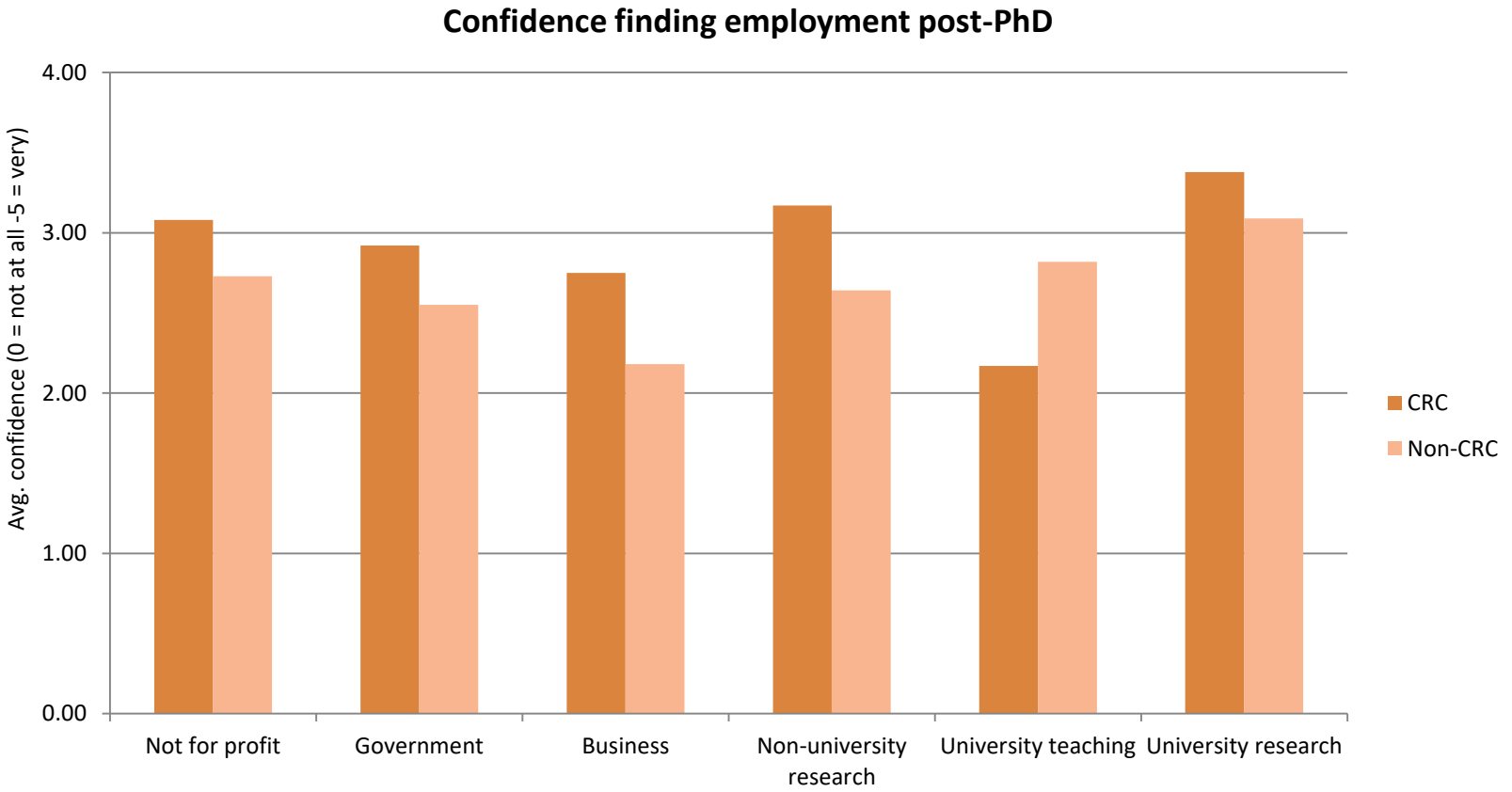

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Program	Plan
Community education	Model published in *Australasian Psychiatry*, presented at RANZCP , working with our Participant research organisations regarding uptake
Knowledge exchange program	Submitted for publication in aged care profession journal
Videoconferences	Available for uptake by other CRCs, universities, student groups
Cohort building approaches	Available for uptake by other CRCs
Collaborative writing program	Preparing to publish, available for uptake by other CRCs, universities, student groups
Publico program – consulting	Available for uptake by other CRCs, universities, not-for-profit sector
Communities of practice	Available for uptake by other CRCs, universities, student groups
Evaluation model	Available for uptake by other CRCs – possibility to combine data

CRC for Mental Health education legacy

- Graduates who remain connected, confident and aware of how collaboration benefits them
- Graduates with demonstrated experience and success working cooperatively with researchers and non-researchers
- Graduates who are comfortable working in, or with, a broad range of industry

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