

**Creating inter-professional
collaboration opportunities
within curriculum:
An exploration of the impact
on professional identity**



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Introduction

Interprofessional education is a process whereby “...students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes.”
(World Health Organisation, 2010, p.10)

- Employers value Allied Health graduates with discipline specific skills as well as the ability to work collaboratively in interprofessional teams to facilitate positive patient / client outcomes (Bridges, Davidson, Soule Odegard, Maki & Tomlowiak, 2011)
- Opportunity for students enrolled in entry level allied health programs to engage in interprofessional education can be limited and/or vary considerably

Professional identity encompasses the processes of thinking, feeling and becoming a professional within a community of practice and is a focus of many disciplines
(Neve, Lloyd, & Collett, 2016)

- Students are developing their professional identities continuously throughout their preparatory courses and beyond; assimilation of both discipline specific and interprofessional knowledge, skills and attitudes are integral components (Kasperski, 2000)

Responsibility	Coordination	Assertiveness
Accountability	Communication	Autonomy
	Cooperation	Mutual Trust

- Large body of literature that explores the development and delivery of IPE
- Fewer studies that demonstrate effectiveness of IPE
- Within allied health disciplines, there is variability in:
 1. The way in which IPE is implemented (when, with whom, how much)
 2. Theoretical underpinnings of IPE
 3. Pedagogical approaches to implementing IPE
 4. Methodological approaches to evaluation of IPE initiatives
- What is not well understood is HOW and WHY particular IPE approaches/ interventions work and the influence of contextual factors such as age, gender, social, economic status, culture, and values and attitudes related to education and learning
(Olsen & Bialocerkowski, 2014)

Purpose of the Project

1. Support undergraduate allied health students in the disciplines of Speech Pathology and Occupational Therapy to develop knowledge, skills and attitudes consistent with an inter-professional, collaborative approach to team work and patient care
2. Identify the factors that sustain or constrain inter-professional learning opportunities embedded within allied health curricula (with a particular emphasis on academic units), within the ACU context
3. Understand how 'novice' students experience interprofessional learning and how this contributes to the emergence of professional competence and identity

Method – “Putting it into Practice”

Participants

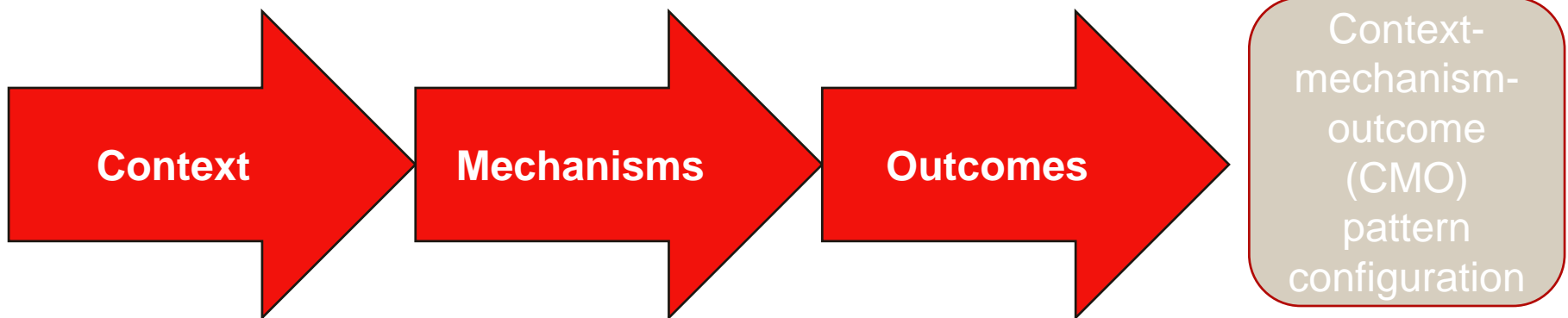
- 376 students from Occupational Therapy (n=217) and Speech Pathology (n=159)
- Across 3 campuses within the Faculty of Health Sciences at Australian Catholic University

The Initiative

- Curriculum redesign to incorporate a blended learning approach to IPE that included:
 - ✓ Two 60 min pre-recorded lectures on theoretical underpinnings of IPL in ‘Flipped Classroom’ style
 - ✓ One self-directed, online learning module about a client with a disability from the suite *Disability Dynamic* (Cerebral Palsy Alliance, 2012)
 - ✓ 6 hrs face-to-face, mixed group tutorials facilitated by either an OT or SP tutor
 - ✓ Asynchronous online forum for collaboration and engagement with teaching staff
 - ✓ One discipline specific, summative assessment task evaluating contextual application of interprofessional knowledge, skills, attitudes
 - ✓ One common, summative assessment task involving individual, critical reflection on the development of interprofessional knowledge, skills and attitudes and emerging professional identity

Realist Evaluation (Pawson & Tilley, 2004)

- A form of theory-driven evaluation
- Aims to explain the processes that influence HOW and WHY a program (intervention) works in a particular context
- Initial hypothesis is developed, tested and refined in light of outcomes
- A realist evaluation aims not to determine “Does this program work?” but rather, “What works for whom in what circumstances and in what respects, and how?”



The Hypothesis – “Thinking it Through”

The Proposition

Embedding an authentic, collaborative interprofessional learning experience within an early discipline specific academic unit would encourage Allied Health students in OT and SP to:

- ❑ Develop and share knowledge of their own discipline and professional role
- ❑ Develop awareness and appreciation of the roles of other disciplines in the context of patient centered health
 - ❑ Calibrate expectations of future interprofessional learning and interprofessional practice experiences
- ❑ Assimilate an interprofessional approach into emerging professional identity

Proposed Context, Mechanism and Outcomes (CMO) Configuration

- CMO 1 - Learning with others
- CMO 2 - Learning from others
- CMO 3 - Learning about others
- CMO 4 - Linking to practice
- CMO 5 - Developing professional identity

Table 1. Proposed Context, Mechanism and Outcomes Configuration

Contexts	Mechanisms (Planned)	Outcomes (Intended)
CMO 1: Learning with others		
<i>Evidence:</i> Students in undergraduate allied health programs have variable	Utilise a blended learning approach to IPE within the disciplines of Occupational	Students will report satisfaction with a blended, <u>multimodal</u> approach to inter professional

Proposed Context, Mechanism and Outcomes Configuration - *Example*

CMO 5: Developing professional identity		
<p>Evidence: Helping students to develop their professional identities: thinking, feeling and becoming a professional within a community of practice, is a focus of many disciplines (Neve et al., 2016). <u>Interprofessional teams</u> operate in communities wherein communication involving multiple professions is valued (Holstein et al., 2011).</p> <p>Local factors: National professional associations for both SP and OT value and expect graduates to be competent in working with other professionals within <u>interprofessional teams</u>.</p>	<p>Students will participate in both individual self-directed activities and also group activities in which they critically reflect on their own professions and professional identity.</p> <p>Students will complete a discipline specific and collaborative assessment tasks in which <u>interprofessional knowledge, skills and attitudes</u> are assessed using formative and <u>summative methods</u>.</p>	<p>Students will develop confidence in their role/s within their own discipline and profession.</p> <p>Students will assimilate positive attitudes towards inter professional practice into their emerging professional identity.</p>

(Dark & Sheppard, 2017)

Evaluation Measures

- Readiness for Interprofessional Learning Scale (RIPLS) (*Revised*) (McFayden, Webster, Strachan, Figgins, Brown & McKechnie, 2005)
 - ❑ *Pre/Post analysis*
- Anonymous written comments from students about their experience of each IPL tutorial
 - ❑ *Qualitative analysis using a-priori themes based on outcomes of IPE (Gough et al., 2012)*
- Individual, written reflection about development of IPL knowledge, skills and attitudes and influence on emerging professional identity
 - ❑ *Thematic analysis (Braun & Clarke, 2006)*

Results – “Making sense”

Was there any difference at baseline between SP & OT students? [Mann-Whitney U (two independent groups)]

Yes, SP students rated their responses higher than the OT students at baseline in Q’s 1, 2, 3, 7, 8, 15 & 16. OT students rated their responses higher than SP students at baseline in Q’s 10, 12, 18 & 19.

	Q1 SP>OT	Q2 SP>OT	Q3 SP>OT	Q4 SP>OT	Q5 SP>OT	Q6 SP>OT	Q7 SP>OT	Q8 SP>OT	Q9 SP>OT
Mann-Whitney U	11737.000	10825.000	10858.000	12982.500	13193.000	12641.000	12524.500	12445.500	12985.500
Asymp. Sig. (2-tailed)	.002	.000	.000	.120	.202	.064	.028	.025	.157

	Q10 OT>SP	Q11 OT>SP	Q12 OT > SP	Q13 SP>OT	Q14 SP>OT	Q15 SP>OT	Q16 SP>OT	Q17 OT>SP	Q18 OT>SP	Q19 OT>SP
Mann-Whitney U	10996.500	12686.000	11950.000	13203.500	12880.000	11072.500	12333.000	13111.000	11361.000	10326.000
Asymp. Sig. (2-tailed)	.000	.071	.000	.237	.128	.000	.024	.270	.001	.000

Did students change Pre-Post when considered as a whole group? [Wilcoxon’s signed rank test (related samples)]

Yes, significant changes were seen in Q’s 1, 7, 14, 16 & 18 across the whole group (both SP & OT students)

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
Z	-2.043 ^b	-.308 ^b	-1.533 ^b	-1.734 ^b	-1.559 ^b	-1.203 ^b	-1.970 ^b	-.206 ^b	-.530 ^c
Asymp. Sig. (2-tailed)	.041	.758	.125	.083	.119	.229	.049	.837	.596

	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19
Z	-.152 ^c	-.076 ^b	-.191 ^c	-1.485 ^b	-2.308 ^b	-1.133 ^b	-2.067 ^b	-.938 ^c	-4.981 ^b	-1.233 ^c
Asymp. Sig. (2-tailed)	.879	.939	.848	.138	.021	.257	.039	.349	.000	.218

Did students change Pre-Post when considered in their discipline groups, i.e., as SP & OT students? [Wilcoxon's signed rank test (related samples)]

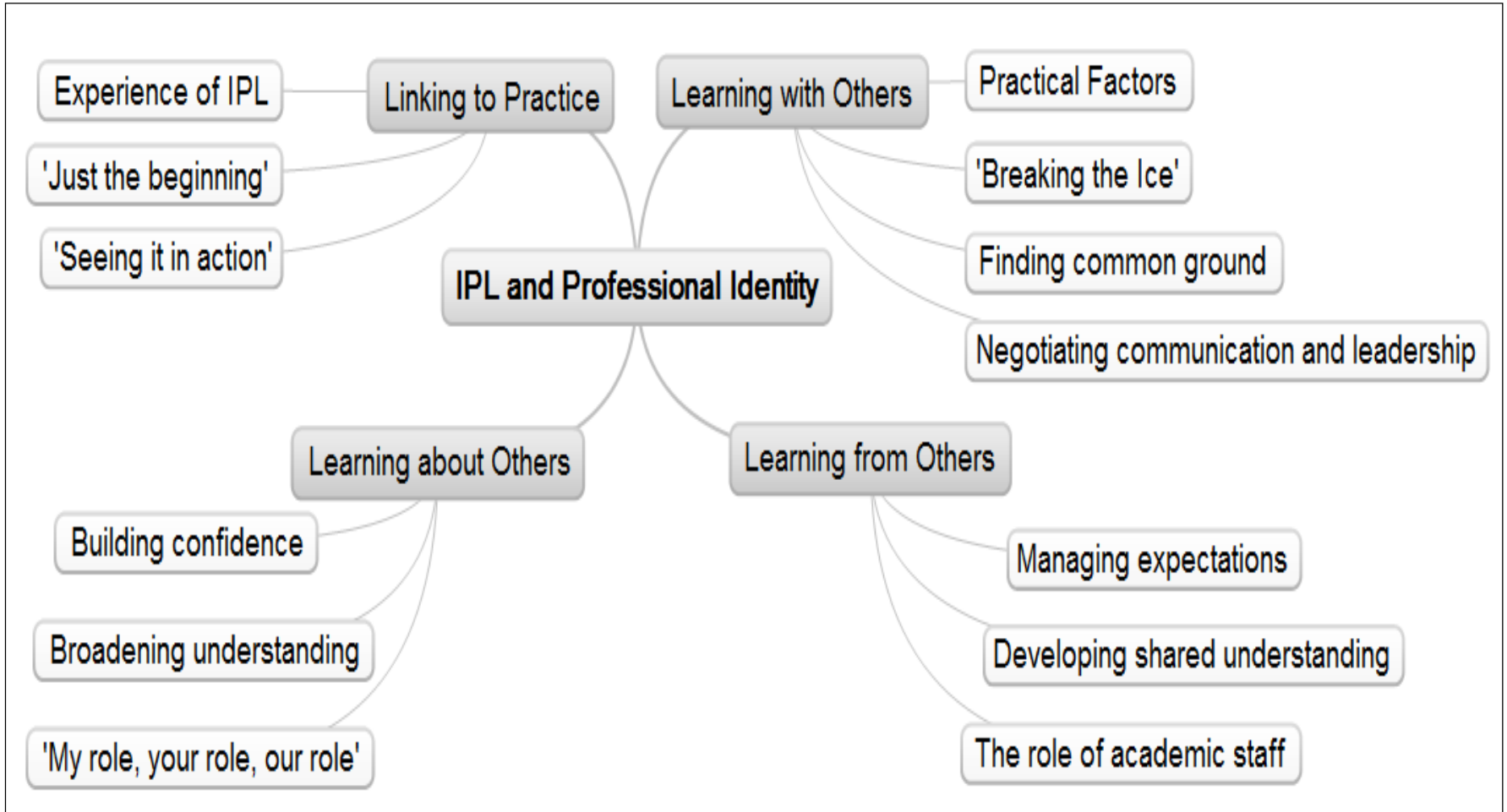
Yes, significant changes were seen in Q's 1, 2, 3, 4, 5, 6, 10, 11, 13, 14, 15 16, 18 for SP students and Q's 10 & 18 for OT students

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
SP	Z	-3.355 ^b	-2.191 ^b	-2.494 ^b	-2.685 ^b	-2.946 ^b	-3.013 ^b	-1.190 ^b	-.200 ^c	-1.497 ^b
	Asymp. Sig. (2-tailed)	.001	.028	.013	.007	.003	.003	.234	.841	.134
OT	Z	-.117 ^b	-1.116 ^c	.000 ^d	-.021 ^c	-.257 ^c	-.839 ^c	-1.570 ^b	-.361 ^b	-1.755 ^c
	Asymp. Sig. (2-tailed)	.907	.264	1.000	.983	.798	.401	.116	.718	.079

		Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19
		-3.573 ^c	-2.584 ^c	-1.499 ^c	-2.666 ^b	-3.067 ^b	-3.184 ^b	-3.049 ^b	-1.510 ^b	-2.373 ^b	-.922 ^c
SP		.000	.010	.134	.008	.002	.001	.002	.131	.018	.357
		-2.251 ^b	-1.766 ^b	-.521 ^b	-.181 ^c	-.278 ^b	-.844 ^c	-.133 ^b	-1.914 ^c	-4.372 ^b	-.948 ^c
OT		.024	.077	.602	.857	.781	.399	.894	.056	.000	.343

	Higher scores indicate higher levels of RIPL	Pre-Post All (n = 226-230)	Pre-Post SP (n = 73-74)	Pre-Post OT (n = 152-156)	Diff at Baseline SP v OT (SP n= 140; OT n = 202)
Q1	Y		Sig ↑		SP higher at BL
Q2	Y		Sig ↑		SP higher at BL
Q3	Y		Sig ↑		SP higher at BL
Q4	Y		Sig ↑		
Q5	Y		Sig ↑		
Q6	Y		Sig ↑		
Q7	Y	Sig ↑			SP higher at BL
Q8	Y				SP higher at BL
Q9	Y				
Q10	N		Sig ↓	Sig ↑	OT higher at BL
Q11	N		Sig ↓		
Q12	N				OT higher at BL
Q13	Y		Sig ↑		
Q14	Y	Sig ↑	Sig ↑		
Q15	Y		Sig ↑		SP higher at BL
Q16	Y	Sig ↑	Sig ↑		SP higher at BL
Q17	Y				
Q18	N	Sig ↑	Sig ↑	Sig ↑	OT higher at BL
Q19	N				OT higher at BL

Relationship between IPL and professional identity



(Dark & Sheppard, 2017)

Learning with Others

“Discussion between students in these sessions was passionate and inspiring, with both OT and SP students proudly driven to share their knowledge. I realise that interprofessional collaboration is not a **“contest of knowledge”, nor is it a threat to your own job role.** Ultimately it is collaboration that will allow effective development of client interventions”
(OT Student)

“It is important that assessments from each discipline don’t fall around the same time as the shared learning - we found that some students were **more focused on their assessments than participating in class.** The first class was great and everyone was super involved, but not so much in the other 2 classes”
(SP Student)

“Participation in this program has instilled the importance of **professional responsibility and accountability** when considering health care planning. Great insight was gained regarding how imbalanced participation and unequal efforts created hindrances to team dynamic; this supported the importance of professional accountability for my future”
(OT student)

Learning from Others

“At first when we were informed about the IPL in week one, I didn’t feel comfortable with the whole idea. I felt as though it was going to be a **waste of time** when instead I could have been learning about other aspects of multimodal communication in my usual classes...but hearing about OT from a student perspective, **it made me realise that there are actually quite a number of similarities between the two areas of study**”
(SP Student)

“I found it fascinating to see how both professions used the International Classification of Functioning, Disability and Health (ICF) in understanding how different conditions affect individuals. We **were able to use this common information combined with our own therapeutic models** to develop greater understanding of consumer’s needs”
(OT Student)

“Instead of working with *students* from another profession I think **it could be more beneficial to swap teachers for a more educated and informative experience.** I would have found it helpful having 1 or 2 tutes with the OT tutor as well because often the OT students in my group were unsure about their knowledge so it could be difficult to learn from them”
(SP Student)

Learning about Others

“Through the interprofessional learning resources, I was able to learn more about the role of speech pathologists and **I was able to distinguish the similarities and differences in relation to areas of focus and different types of models utilized in practice.** From the knowledge gained, I also **improved my understanding of the boundaries** between the speech pathology and occupational therapy disciplines and where we could overlap”
(OT Student)

“It is a great idea to work with other students in order to **gain a better insight about their professions.** I realise it is not enough to just ‘do your part’; it is the responsibility of the entire allied health team to ensure a better quality of life for the client”
(SP Student)

“In the future **I’d also like to improve my knowledge of other allied health disciplines.** The reason I find it an important skill to have moving forward is that when I find myself working with physiotherapists, social workers or psychologists (as examples) we can efficiently and effectively create person-centred care plans”
(OT Student)

Linking to Practice

“I was impressed with how the inter-professional classes were conducted and the encouragement shown to mingle and meet with others in the class. The classes were comfortable, supportive and were lead with direction. Both the OT and SP students found meaning in the tutorials as they directly assisted with the content needed for our respective assignments”

(OT Student)

“Great experience! More time was required to fully understand the content. Although interprofessional learning is ever evolving and I will continue to learn”
(OT Student)

“I expect to have plenty more experiences in the near future with interprofessional practice that will aid my learning and help me to be a good quality speech pathologist. I feel this experience was a ‘taste tester’ so to speak which will lead to countless other experiences engaging with members of various professions”

(SP Student)

Key Findings

- Overall, the students in this cohort were ‘ready’ for interprofessional learning and did not need persuading of the importance of integrating interprofessional knowledge, skills and attitudes into their professional tool kit and emerging identity
- Students in different disciplines come with a different ‘profile’ of readiness for IPL that can influence their expectations, engagement with and outcomes of IPL
- Students in the early stages of their course can be initially apprehensive about IPL opportunities; in particular the idea of ‘missing out’ on discipline specific content and having the responsibility of ‘teaching others’ about their role
- Students who were able to identify what was ‘similar’ between their own professional role and the roles of other disciplines ultimately engaged more positively and consistently with the IPE learning activities on offer

Key Findings

- Students have a multilayered approach to drawing meaning from IPE experiences; whilst there is a bigger picture professional impetus, there are also immediate practical and pragmatic concerns that influence engagement and success with IPL:
 - ❑ Timing and placement of IPE within a semester
 - ❑ Alignment of IPE with assessment requirements
 - ❑ Parity of assessment requirements across disciplines
 - ❑ Familiarity and competence of tutors with IPL
 - ❑ Timetabling and logistics
- Ultimately, students valued the opportunity to question their self-understanding of their own and others roles in the provision of health care and explore the ways in which they can assimilate interprofessional, collaborative sensibilities into their emerging professional identity

Next Steps

- Further analysis of quantitative data
 - ❑ *E.g. Age, gender, campus location, prior experience with IPL*
- Further analysis of qualitative data
- Exploration of staff perspectives of the IPE initiative
- Revision and refinement of CMO configurations based on ongoing data analysis
- ‘Testing’ of initial hypothesis about the embedding of IPL within academic units
- Incorporation of student feedback into next iteration of unit design e.g., access to tutors from both discipline backgrounds, design of assessment tasks, selection of case-based scenarios for IPL collaboration

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