

2015

# Peer Assisted Study Sessions for research trainees

Anne Cusick

*University of Wollongong, acusick@uow.edu.au*

Danielle Camer

*University of Wollongong, dc608@uowmail.edu.au*

Alexander Stamenkovic

*University of Wollongong, astamenk@uow.edu.au*

Melissa Zaccagnini

*University of Wollongong, melissaz@uow.edu.au*Follow this and additional works at: <http://ro.uow.edu.au/ajpl>

Anne Cusick a,b\*, Danielle Camerb,c,d, Alexander Stamenkovic b,c, & Melissa Zaccagnini e. \*a Faculty of Social Sciences, University of Wollongong, Wollongong, Australia; b Illawarra Health & Medical Research Institute, Wollongong, Australia; c Faculty of Science, Medicine and Health, University of Wollongong; d Centre for Translational Neuroscience, Illawarra Health & Medical Research Institute, Wollongong, Australia; e Neural Control of Movement Laboratory Faculty of Science, Medicine and Health, University of Wollongong; e Peer Learning Manager, Learning, Teaching & Curriculum Unit, University of Wollongong

## Recommended Citation

Cusick, Anne; Camer, Danielle; Stamenkovic, Alexander; and Zaccagnini, Melissa, Peer Assisted Study Sessions for research trainees, *Journal of Peer Learning*, 8, 2015, 18-33.

Available at: <http://ro.uow.edu.au/ajpl/vol8/iss1/4>

---

## Peer Assisted Study Sessions for research trainees

### **Cover Page Footnote**

Anne Cusick a,b\*, Danielle Camerb,c,d, Alexander Stamenkovic b,c, & Melissa Zaccagnini e. \*a Faculty of Social Sciences, University of Wollongong, Wollongong, Australia; b Illawarra Health & Medical Research Institute, Wollongong, Australia; c Faculty of Science, Medicine and Health, University of Wollongong; d Centre for Translational Neuroscience, Illawarra Health & Medical Research Institute, Wollongong, Australia; Neural Control of Movement Laboratory Faculty of Science, Medicine and Health, University of Wollongong; e Peer Learning Manager, Learning, Teaching & Curriculum Unit, University of Wollongong

# Peer Assisted Study Sessions for research trainees

Anne Cusick, Danielle Camer, Alexander Stamenkovic, and Melissa Zaccagnini

## ABSTRACT

Research training should facilitate effective researcher role development. While researcher roles require the performance of specialised knowledge and skill, they also require development of personal research identities within social contexts. Interaction with research peers can provide opportunities for reflective role development. Ad-hoc cohort-specific peer interventions are relatively common in research training, but these can lack standardisation and clear conceptual frameworks to underpin strategies. Peer Assisted Study Sessions (PASS) provide a structured approach to peer support for learning. As such, we aimed to develop, implement and evaluate a PASS program for research trainees. Participants (N = 21; 9 male, 12 female; exercise science n = 5, biomedical science n = 7, science n = 2, public health n = 4, nutrition n = 3) were post-bachelor honours students and PASS was provided on a weekly basis. Demographic, academic, and PASS data were collected from institutional records. Students completed standardised PASS satisfaction evaluations. Standard undergraduate PASS administrative, funding, and reporting strategies were successfully applied. Leader selection, training, and PASS resource development processes were adapted for the research training context. Attendance and student satisfaction was high as was timely completion of research related assessments. PASS has been shown to provide methodological consistency and a transparent conceptual framework to frame expectations about the process, leader and participant roles, and mechanisms to evaluate impact. PASS enables institutionally sanctioned but peer driven opportunities for social exchange wherein reflective interpretive approaches to research role development can be considered.

## INTRODUCTION

Researcher role development is a long and arduous process involving many years of skill and knowledge development. In Australia, honours is a research training program that sits at Level 8 of the Australian Qualifications Framework (AQF, 2013) between bachelor (AQF Level 7) and postgraduate (AQF Level 9 or 10). Honours programs have wide variation in structure, content and learning outcomes (Kiley, Boud, Cantwell, & Manathunga, 2009). Research training in honours typically comprises completion of a supervised research project and it may have associated coursework in both technical aspects of the specialty area and/or advanced research methodologies (Kiley, Boud, Manathunga, & Cantwell, 2011).

Honours programs are time-pressured and performance focused, in part because commencement to completion can occur in as little as nine months.

This is because students usually commence at the beginning of an Australian academic year (beginning of southern hemisphere autumn) and complete in time to be examined and then submit applications for higher-degree research positions (PhDs) (end of southern hemisphere spring). Honours results are the typical benchmark for PhD eligibility and admission (Kiley et al., 2009). Only exceptionally high performing undergraduates are eligible to apply for honours programs. At the end of their honours program, they need very high results to be eligible for the limited number of research training places available. Honours can thus be an intense, hard, competitive, but deeply satisfying time of learning.

Most honours research projects are specialty based, closely supervised, and often in topic areas controlled by a senior researcher. As a result there can be limited opportunity for students to set the research agenda, explore personal learning needs, or network outside their team, laboratory, or specialty. Individual students may not have the opportunity to lead or to take paths different to that required by supervisors or research teams. Even though research student seminars or university-wide research student networks may be available, these students are often so time poor that the generic and open ended nature of these supports may not be attractive or accessible.

### **Research training and researcher role development**

Research training is a form of occupational socialisation (Weidman & Stein, 2003). The focus is on facilitating individual change from the role of student to the role of researcher. This is a process of role taking (Biddle, 1986). Role taking is in part facilitated by the institution through research training processes that develop specialty skills and knowledge. Research trainees must perform to a standard required by the discipline and adopt values deemed essential by the research community. Performing and conforming reflects a functionalist approach to occupational socialisation (Antony, 2002; Burrell & Morgan, 1979; Zeichner & Gore, 1990).

But there is more to being a researcher than development of technical knowledge and skill and demonstrating performance. Individuals go on a personal journey (Stubb, Phyhalto, & Lonka, 2012) and change as a result of their training (Wood, 2006). They don't just do research; they become researchers (Cusick, 2000, 2001, 2015). Trainees build unique research identities (Murakami-Ramalho, Militello, & Piert, 2013) and construct personal narratives about their research experience (Taylor, 2011). This dimension of researcher role development is more than the functional acquisition of advanced knowledge and skill. Functionalist approaches to occupational socialisation are inadequate to describe or explain this aspect of role development. Instead, interpretative approaches to occupational socialisation provide a way of understanding the intra- and inter-personal process of becoming a researcher (Cusick, 2015). The interpretive approach to role taking and occupational socialisation assumes individuals construct their unique research identities and assume the researcher role in a socio-cultural context (Crossouard, 2013; Fenge, 2012). Day to day interactions with research supervisors, colleagues, and peers facilitate role acquisition and provide opportunities for reflection on the researcher role (Åkerlind, 2008; McAlpine, Jazvac-Martek, & Hopwood, 2009).

Researcher role development is a personal and social process. Social contexts provided by institutions as part of research training programs are thus potent factors influencing trainees as researchers.

### **Peer support in research training**

Peers are an important part of the research trainee's social context. They provide opportunities for skill development and social interaction outside of the supervisor-student relationship (Hortsmanshof & Conrad, 2003; Hunt & Swallow, 2014; Pilbeam, Lloyd-Jones, & Denyer, 2013). Peers can share experience to reflect on and build unique understandings about their research training (Deem & Brehony, 2000). They can engage in collaborative research processes such as peer review (Hortsmanshof & Conrad, 2003) and help build unique research identities through social interactions where perspectives are shared (Fenge, 2012). Peers can also ameliorate the negative consequences of functionalist approaches to research training such as social isolation (Hortsmanshof & Conrad, 2003), neglect of personal learning (Lindén, Ohlin & Brodin, 2013), and too much of a focus on summative assessments (Crossouard & Pryor, 2008).

Most research students are members of informal student networks (Pilbeam & Denyer, 2009), and peer support for postgraduate research students is not uncommon (e.g., Buissink-Smith, Hart, & van der Meer, 2013). There is, however, a dearth of research about strategies that actively and systematically use peers in research training. Most interventions are ad-hoc and are not based on a standardised approach. Two recent examples illustrate different ad-hoc peer approaches. In Pilbeam, Lloyd-Jones, and Denyer (2013), peer-support groups were intentionally constructed and leveraged for academic discussion, benchmarking progress, and providing personal support. In Hunt & Swallow (2014) a peer-driven community based model of doctoral supervision was developed following a review of supervision literature and feedback from an ethics workshop conducted for prospective health care research students working with children. In both of these examples, cohort specific strategies were developed and adopted.

Supplemental Instruction (Arendale, 1993) is an approach to peer support that has been in operation for many decades across many disciplines and student cohorts but as yet has not been applied to research training. It provides a theoretical framework, practice tradition, standardisation in methodology, and an opportunity for individualisation in the development and implementation of peer learning support groups. In Australia, Supplementary Instruction is also known as Peer Assisted Study Sessions (PASS). Since the utility of ad-hoc peer support strategies has been demonstrated and the need for strategies to help support the interpretive aspects of occupational socialisation is clear, it seemed timely to investigate the application of PASS to research training.

### **AIM**

To develop, implement and evaluate a Peer Assisted Study Session (PASS) intervention for post-bachelor honours research trainees.

### **METHOD**

This study used a program evaluation design where the focus was as much on recording and evaluating the planning processes to establish the

intervention as it was on describing the intervention and outcomes. To maintain anonymity in the two small cohorts in the study, individual student results were not matched with demographic or PASS attendance data. This is a study de-limitation but was required to assure students that there were no “performance requirements” in the PASS program. Ethical approval to conduct the study was received from the Human Research Ethics Committee of the University of Wollongong.

### **Study site and PASS administration**

The study site was the University of Wollongong, where PASS programs have been in operation since 2002. PASS is provided as a free service to students. PASS Leaders are paid employees. PASS is funded half by the sponsoring Faculty and half by University Central administration through the University Peer Learning Unit. Faculties decide which courses/subjects to sponsor in consultation with the Peer Learning Unit. PASS Leader recruitment, selection, training, payment, room booking, and attendance monitoring are implemented by the University Peer Learning Unit using standardised administrative processes.

### **Gaining support to implement the program**

Anecdotes from previous honours conveners revealed the need for “something more” than existing course activities of supervision and research seminars. Their anecdotes included stories about: student problems relating to workload management, the intense time frame for training and completion, the sense of being “thrown in the deep end,” feelings of isolation particularly for those students who were the only honours students in their research teams, and a sense of disconnection and/or exclusion from old undergraduate friends who had left the university.

The honours program was already resource intensive including:

- a) Workload allocations made to: the honours convener to coordinate the program and take seminars; academic staff for occasional seminar presentations and one-on-one supervision; academic staff for proposal, final presentation, and peer-review assessment panels; and academic staff including external academics for thesis examination;
- b) Student study grants to support essential project resources;
- c) Student inductions to their research teams and orientations to laboratory or the field environments;
- d) Allocations of office and laboratory space to students and provision of specialist facilities in a constrained and competitive research environment.

These existing resources were dedicated to a small number of students each year. The rationale for further investment was that the PASS program would:

- a) Contribute to the research culture of the Faculty using an innovative approach,
- b) Be implemented as a formally evaluated pilot, and
- c) Contribute to the culture of scholarship surrounding learning and teaching support strategies implemented across the University.

Funding was approved by Faculty Executive and the University Peer Learning Unit for all of the first year of PASS implementation. Funding was not made available in the second half of the second year of implementation for spring session due to budget constraints in the Faculty.

### **Participants and the honours program**

All students in the 2012 and 2013 health science honours research training program were participants. To be eligible to enrol students needed a secured supervisor, an approved project topic, and a minimum credit grade average (65%) in their completed undergraduate studies. All students had to meet regularly with their supervisor, participate in any laboratory or field inductions, attend laboratory or team research meetings as directed by their supervisor, and attend the health science research seminar series throughout the year. Typically, there was only one honours student in each laboratory or research team and the student usually had one supervisor. The manner of working and workload, days on or off campus and number of supervisory meetings was at the discretion of the supervisor. Supervisors also determined whether or not a student would be available for PASS by setting schedules and workloads for students. Students had on campus shared office accommodation in a dedicated honours space.

All students had to present a research proposal a few weeks after commencing, which was prepared under supervision and independently marked by a panel of health science research staff. Satisfactory completion of this step was required for continued enrolment. At the end of the program students submitted a research thesis which was independently marked by two examiners and the examination reports were peer reviewed by an assessment panel of senior health science researchers. Students also made a final presentation where they answered questions about their study by an independent assessment panel and this was also marked. The presentation and peer reviewed thesis marks contributed to the final academic result.

### **Data collection and analysis**

Data for this study was retrieved from institutional records. An independent project officer was employed to retrieve, de-identify, and code the following:

- Data from student records: gender, course discipline, and academic result.
- Data from the Peer Learning Unit records: PASS registration and frequency of PASS attendance.
- Responses to the standardised 11-item 5-point Likert-type student satisfaction survey which was administered to students via handouts in the last weeks of each session.

Quantitative data was aggregated and reported using descriptive statistics. Given the small numbers and possibility of identification no inferential statistics were conducted. The honours convener and project supervisors provided informal feedback on their perceptions of the PASS program. This feedback was de-identified and reported using keywords common across comments.

### **PASS Leaders**

PASS Leaders need to be perceived as true peers by participants (Brack, Millard, & Shah, 2008). In this study they were health science honours graduates. Standard institutional PASS Leader recruitment and selection processes were adapted because this was a pilot program in a new area. Rather than advertising for potential PASS Leaders, the chief investigator (AC) liaised with the Peer Learning Manager (MZ), nominating appropriate honours graduates from the year before who had remained on campus after successfully obtaining PhD research training scholarships (DC and AS). These students were then interviewed and employed using standard PASS criteria. They received standard PASS training. They were also briefed by the chief investigator and Peer Learning Manager regarding the study rationale, design, and the innovative nature of PASS application in the research training context.

Normally only one PASS Leader is used per class. In this study a male (AS) and female (DC) were purposively selected so that male and female research trainees would have peers of the same gender. Both PASS Leaders had biomedical science discipline backgrounds but were working in different specialty laboratories. The overwhelming majority of honours research trainees were in biomedical science specialties.

Normally PASS Leaders are paid to attend relevant lectures. In this instance there were no lectures because each student was assigned to individualised study related to their project. To familiarise themselves with project topic areas, the PASS Leaders attended proposal presentations. PASS Leaders met before a session to plan and they debriefed after each session. They also evaluated their own performance through a portfolio approach, submitting their work for review as part of a successful application for a PASS Leader award (Stamenkovic & Camer, 2012). PASS Leaders/sessions were observed by an accredited PASS Supervisor, in line with the standard PASS quality assurance process.

### **Program timing**

The Peer Learning Unit normally examines the timetables of undergraduate students to identify suitable times to schedule weekly PASS classes. In this instance the individualised study for each student meant this was not possible. To ensure PASS was available to all honours candidates, the chief investigator (AC) negotiated with the honours convenor to have PASS sessions formally recognised as a scheduled but voluntary component of the honours program. No research seminar or other session was scheduled at that time. Supervisors were also consulted regarding the time and day selected so that clashes were avoided with regular laboratory or team meetings. PASS was offered weekly during academic terms and as the honours program continues during recess, sessions were offered during holiday-recess but at a reduced rate: in 2012 autumn (N = 13), winter holiday-recess (N = 3), spring (N = 12); in 2013 autumn (N = 12). In 2013 no spring PASS program was offered.

### **Student participation**

Supervisors were not required to give approval for their students to participate in PASS. Supervisors were made aware of the final time and day used for PASS sessions. The classes were held in a location separate to



honours program facilities. Students could choose whether or not to participate, so supervisors did not necessarily know if their students were attending PASS or not.

### **Program description**

The Supplemental Instruction/PASS (Arendale, 1993) model was used, particularly emphasising the development of discipline specific learning skills, the formation of social connections, creating a sense of belonging, and fostering of peer-to-peer relationships in each cohort.

Other factors that influenced PASS program design were recognition of how “time poor” these students can be. They have multiple commitments to their supervisor, research laboratory or fieldwork, research team, research center (if applicable), research course coordinator, assessment deadlines, and associated university activities such as casual work. On top of this they have commuting, commitments to friends, family, and part time non-university paid work. It is common to hear honours trainees saying they feel overwhelmed. For this reason the PASS sessions were designed to be weekly so that if something “cropped up” a trainee would not need to wait a long time for another session. They were 50 minutes so that “time poor” students could come in and out for a short meeting time. They were also designed to be welcoming, enjoyable, and fun.

The program closely followed the usual PASS approach used throughout the institution for undergraduate and postgraduate coursework subjects. Sessions focused on providing opportunities for peers to share their research training experience, ask questions of each other and the PASS Leaders, and explore what was similar and different across their individual research topic and training experience. Rather than being subject/topic specific, because of the diversity of topics, sessions focused on sharing experience of the research process. Participants were aware that conversations in sessions were confidential—this was particularly important if aspects relating to supervisor-student relationships, laboratory or field relationships, or project process issues were discussed and peer support sought. Two PASS Leaders were present for each session.

### **Session design**

Session plans, activities, and resources were developed by the PASS Leaders (DC, AS). These were aligned to program milestones such as presentation, proposal, and thesis submission deadlines. Session plans, activities and resources followed a PASS Leader-developed template (Table 1).

### **Session learning resources**

The PASS Leaders developed learning resources. The resource package contained weekly plans for all sessions. Despite a logical procession of topics (based on program milestones, assessment criteria, and timelines) the order of activities was flexible and it was common for topics to be altered based on student comments, session flow, student feedback, and the amount of participants attending a session.

All sessions included innovative peer activities to introduce or refine general research skills and techniques the PASS Leaders thought might have helped

them when they were students; these topics were also used as a basis for student led discussion. Examples of some of the novel activities included:

- “EndNote™ golf,” an activity aimed at improving efficiency in using the EndNote™ referencing program by seeing who could locate a source using the least number of steps—over, on, or under “par;”
- “The Scientific Poster,” where students devised and presented a mock scientific poster based on a trivial topic such as “ice-cream” and in doing so developed student skills in articulation of ideas and visual presentation; and
- “Bake a Cake Better Than We Can,” which was a group activity where participants discussed, critiqued, and altered a recipe for baking a successful cake, comparing the cake report outcomes to the method section of a successful scientific experiment/or field study.

PASS Leaders also produced “The Book of Questions,” a blank book which was on the desk at each PASS session. The purpose of this book was to allow students to express their problems, raise questions, or give feedback without having to discuss, describe, or explain to the PASS Leaders why these issues were important. They could do it anonymously or with attribution. Participant entries in “The Book of Questions” was also used during discussions, so that as PASS participants thought of something, they could write it in “The Book of Questions” and continue the idea in a future session without interjecting in current activities. These allowed sessions to fully address issues raised by students within sessions and build future sessions on other topics that came up through the discussion. Questions in “The Book” were answered by other students writing the answer in it, or by having the issue picked up in session discussions. PASS Leaders used the book as a resource and tool to elicit topics to devise future PASS sessions.

Table 1

*Typical PASS Honours session template* (Stamenkovic & Camer, 2012)

<b>Activity</b>
<p><i>Welcome &amp; Attendance</i> (about 5 min)</p> <p>For initial sessions this may include activities to create a cohesive group atmosphere. An example includes “Two facts, one fiction,” an “icebreaker” activity that will generally focus on non-academic information. Students will divide into pairs and formulate stories which will involve three discrete statements. They will then relay this information to the rest of the group to determine the fictitious statement from the facts.</p>
<p><i>Progress &amp; Problems</i> (about 15 min)</p> <p>Students are able to open up a dialogue based on issues or milestones achieved over the past week. These are then discussed as a group. It is important to get both a positive and negative aspect from the past week from a student.</p> <p>This can often link to the session topic and is also an excellent way to involve students who may not be constant participants.</p>
<p><i>Session topic &amp; Discussion</i> (about 15 min)</p> <p>The session topic is discussed as a group and explored through the experiences of the group and PASS Leaders. Generally questions addressed to PASS Leaders will be circulated to the group first.</p> <p>Examples include: “What is Honours?”, “Introducing the resources of Honours,” “Time management,” and “Pictures vs. words – how can figures help, tables and illustrations help?”</p>
<p><i>Topics Activity</i> (about 20 minutes)</p> <p>Typically this will be a hands-on small group collaboration or individual piece of work that will require a creative element.</p> <p>Examples include: “The Great Honours Debate,” “EndNote™ Golf,” and “The Scientific Poster.”</p>
<p><i>Pitching the next session</i> (about 5 minutes)</p> <p>A topic suggestion from the PASS Leaders is fielded to the cohort OR students will suggest and agree on a topic for the next week. Questions. are written into “The Book Of Questions” for future discussion.</p>

## **RESULTS**

Of 25 commencing honours students two withdrew from honours and one transferred to another Faculty before PASS commenced. One student (exercise science) completed honours but did not participate in PASS as she always had supervisor or laboratory commitments scheduled. Twenty-one students participated in the PASS program (9 male and 12 female; n = 11 in 2012 and n = 10 in 2013; age range 21 to 26 years). PASS students came from exercise science (n = 5), biomedical science (n = 7), science (n = 2), public health (n = 4), and nutrition (n = 3) disciplines. There were no international students.

## **Awareness**

All students heard about PASS from the honours convenor at program commencement and were encouraged to attend as volunteers. PASS Leaders also addressed the group and invited them to come if they wanted to. A

message was also sent to all students about the program via the institutional online messaging system (SOLS) by the Peer Learning Unit.

### Attendance

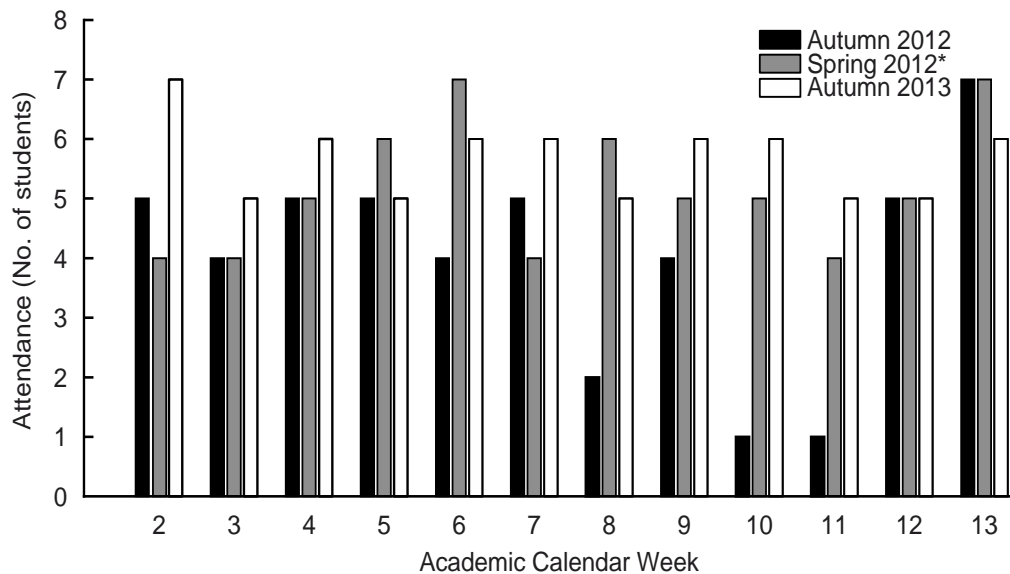
Figure 1 summarises student attendance. 2012 autumn participant attendance was a median of 5, (38.5% of 13 sessions, mode 6, range 1 to 11). In winter most students did not attend (only 2 students attended the 3 sessions); and in spring the median was 4.5 (37.5% of 12 sessions, mode 5, range 5-7). In 2013 participant autumn attendance was a median of 5 (41.6% of 12 sessions, mode 5, range 2 to 11).

### Timeliness of honours assessment completion

All students made proposal and final presentations on time and submitted their thesis in time for the end of year results processing. The student who did not attend any PASS did not complete assessments on time and required a thesis extension.

### Academic result

Student assessment results were taken from the published graduate roll. There were 12 First Class Honours, eight Second Class Honours Division 1, and one Second Class Honours Division 2. No student received a Third Class Honours or fail.



*Figure 1.* Student attendance rates

\*Attendance derived from PASS leader records

### Student satisfaction with PASS

Table 2 summarises student satisfaction feedback. Most students found the PASS program was positive on most items in the standardised survey (“agree” ranges from 57 to 100% in the 2012 cohort and 50 to 100% in the 2013 cohort).

### Participant feedback on their experience

Motivations to attend the PASS program included: “isolation/meeting other people, the PASS Leaders’ enthusiasm, wanting better marks,” and having “scheduled study.” Comments made by participants in response to an open invitation for feedback confirmed the positive view of PASS for the research trainees. Most students said they “liked meeting and working with other students,” while others found having “alternative avenues for approaching management of an honours project” and “the friendly environment and ability of the PASS Leaders to impart their wisdom” to be the best features. Participants suggested future PASS programs could be improved by having “more structure/direction in the weekly sessions, having input relating to essay technique, reviewing previous high performing honours student papers [proposals/theses], and more lollies [sweets].”

Table 2  
*Participant satisfaction*

Participating in PASS has:	Agree %	Neutral %	Disagree %	Missing %
2012 (N = 7)				
2013 (N = 6)				
Helped me to meet other people in my course	100 <sup>ab</sup>	0 <sup>ab</sup>	0 <sup>ab</sup>	0 <sup>ab</sup>
Been an enjoyable learning experience	86 <sup>a</sup> 100 <sup>b</sup>	14 <sup>a</sup> 0 <sup>b</sup>	0 <sup>ab</sup>	0 <sup>ab</sup>
Increased my motivation to complete my course	86 <sup>a</sup> 100 <sup>b</sup>	0 <sup>ab</sup>	14 <sup>a</sup> 0 <sup>b</sup>	0 <sup>ab</sup>
Helped me to work collaboratively and productively	86 <sup>a</sup> 83 <sup>b</sup>	0 <sup>a</sup> 17 <sup>b</sup>	14 <sup>a</sup> 0 <sup>b</sup>	0 <sup>ab</sup>
Improved my understanding of subject content	86 <sup>a</sup> 83 <sup>b</sup>	0 <sup>ab</sup>	14 <sup>a</sup> 0 <sup>b</sup>	0 <sup>a</sup> 17 <sup>b</sup>
Helped me feel more comfortable communicating with a group	72 <sup>a</sup> 100 <sup>b</sup>	14 <sup>a</sup> 0 <sup>b</sup>	14 <sup>a</sup> 0 <sup>b</sup>	0 <sup>ab</sup>
Helped me to understand how to succeed academically	72 <sup>a</sup> 100 <sup>b</sup>	14 <sup>a</sup> 0 <sup>b</sup>	14 <sup>a</sup> 0 <sup>b</sup>	0 <sup>ab</sup>
Encouraged me to take responsibility for my own learning	72 <sup>a</sup> 83 <sup>b</sup>	14 <sup>a</sup> 17 <sup>b</sup>	14 <sup>a</sup> 0 <sup>b</sup>	0 <sup>ab</sup>
Given me a better understanding of the demands of learning at UOW	72 <sup>a</sup> 50 <sup>b</sup>	28 <sup>a</sup> 50 <sup>b</sup>	0 <sup>ab</sup>	0 <sup>ab</sup>
Improved my problem solving skills	72 <sup>a</sup> 50 <sup>b</sup>	14 <sup>a</sup> 50 <sup>b</sup>	14 <sup>a</sup> 0	0 <sup>ab</sup>
Assisted me in preparing for [final presentation] or final [thesis]	57 <sup>a</sup> 100 <sup>b</sup>	29 <sup>a</sup> 0 <sup>b</sup>	14 <sup>a</sup> 0 <sup>b</sup>	0 <sup>ab</sup>

Note. a = percentage for 2012 cohort; b = percentage for 2013 cohort.

## **DISCUSSION**

Researcher role development is a process of occupational socialisation. Research training includes many strategies to facilitate successful development of attitudes, knowledge and skill required for the research role. Most of these strategies are, however, constructed within institutional and disciplinary agendas and thus reflect a functionalist approach to occupational socialisation. Students entering first year graduate research training programs are thrust into the various expectations, norms and performance requirements of their specialty, research teams, and institutions. In the case of honours, trainees need to adapt, perform, and complete within a short time frame.

In this study, the PASS program provided a support strategy that was perceived as complementary to and different from standard institutional research training strategies by both students and staff. Most participants were very satisfied with the program. The multidisciplinary nature of the peer group was workable and appears to support claims that “manufactured” peer groups from diverse disciplines can provide positive research support (Buissink-Smith et al., 2013). The honours convenor and supervisory staff thought the program was useful and should be continued. Initial concerns from some staff that it would “mirror” what occurred in research seminars and individual supervision were allayed. The Faculty included support for the program in recurrent budgets.

Use of a PASS strategy in research training responds to critiques of traditional doctoral education as “provisionist” or “performative” (Boud & Lee, 2005). Functionalist approaches limit opportunities for reflexive researcher identity development (Cusick, 2015). PASS is student-led and student-focused support strategy. It provides a standardised but cohort-unique approach that extends the social context beyond that of the supervisor-student relationship, research teams, and seminars. PASS provides a framework for peer driven intentional pedagogy (Boud & Lee, 2005), collaborative knowledge sharing (Malfroy, 2005), and iterative personal reflection on personal “journeys” as research trainees.

This study shows that existing research training programs could easily integrate peer support strategies without disrupting usual institutional, discipline, supervisory, or research team/laboratory approaches. PASS was approved by the Faculty Executive and University Peer Learning Unit and supported by the honours convenor and dedicated resources. Institutional endorsement is a factor previously identified as important in the success of post-graduate peer support strategies (Buissink-Smith et al., 2013).

Most participants were motivated to join the program because of isolation or the desire for social interaction. This is even though all of them attended regular research seminars and were surrounded by research supervisory or team colleagues. PASS provided the trainees with an opportunity to address social isolation and construct cohesive student networks outside their research teams (Pilbeam, et al., 2013). They had an institutionally sanctioned cohort to share their experiences and perspectives with.

## **RECOMMENDATIONS**

Administration of PASS programs for research students should be integrated into usual institutional arrangements and not “hived off” to the research office or similar. Application of an integrated approach ensures that the philosophy, practices, and processes of PASS are maintained. Further it ensures the institutional drive for performance-based engagement in any research related program is quarantined.

It is helpful if the honours convenor has a good understanding of the notion of supplementary learning to ensure seamless integration of the PASS program with usual honours activities. It also helps supervisors across a range of different research disciplines, topics, teams, and laboratories to see the sessions as a legitimate and complementary use of “their” student’s time.

In line with the traditional model, we recommend that PASS is offered as an opt-in (voluntary) adjunct support program that is scheduled into honours courses by being linked to the thesis subject. Thesis subjects usually list a range of resources and the PASS program can be identified as one of those resources. PASS information can then be disseminated through mainstream subject materials such as the subject outline, handouts, orientation sessions, or online learning platforms. Inclusion of the PASS program as one of a number of thesis subject resources legitimises the relevance of the support as part of the university program of study. It is important that it is voluntary because otherwise it will become just another “thing to do” or “performance space” for already over-loaded trainees.

Honours research students would best benefit from PASS if it involves a multidisciplinary cohort who are still linked via cognate areas in some way. This enables participants to have meaningful peer exchange about a range of issues that include not only their experience of honours but substantive matters relating to their topic or techniques. It also ensures the PASS Leaders have some understanding of topic areas to facilitate discussion and reflection. Whether or not PASS would be as successful for research students in disciplines that were more diverse is not known. Equally, it is not known whether PASS would work as well in a student cohort where there was greater homogeneity in study disciplines and topics. In the cohort being investigated, all students were allocated to different research teams and laboratories, which meant there was no within-group competition for limited post-graduate research training opportunities in that team.

## **CONCLUSION**

Research training aims to develop researchers. The researcher role requires development of performance skills and personal perspectives. Supplementary learning provides an opportunity for research candidates to engage with and reflect on their training from a personal perspective in the context of peers. Socialisation to the researcher role requires both performative and interpretative opportunities for learning. PASS provides a ready-to-use approach to integrate interpretive learning opportunities to research training programs. PASS has an inherent pedagogical framework, standardised methodology, and a body of knowledge that supports interpretive aspects of occupational socialisation and balances the performance requirements of institutional research training programs.

## REFERENCES

- Åkerlind, G. S. (2008). Growing and developing as a university researcher. *Higher Education*, 55(2), 241-254. doi:10.1007/s10734-007-9052-x
- Antony, J. S. (2002). Reexamining doctoral student socialization and professional development: Moving beyond the congruence and assimilation orientation. In J. C. Smart & W. G. Tierney (Eds.), *Higher Education: Handbook of Theory and Research* (Vol. XVII, pp. 349-380). New York, NY: Agathon Press.
- Arendale, D. (1993). Foundation and theoretical framework for supplemental instruction. In D. C. Martin & D. Arendale (Eds.), *Supplemental instruction: Improving first year student success in high risk courses* (2nd ed., pp. 19-26). Monograph series No. 7. Columbia, SC: The National Resource Centre for the First Year Experience and Students in Transition. Retrieved October 1, 2014, from <http://www.tc.umn.edu/~arend011/REVTHEOR.pdf>
- Australian Qualifications Framework Council. (2013). *Australian Qualifications Framework*, (2nd ed.). Retrieved October 1, 2014, from: <http://www.aqf.edu.au/>
- Biddle, B. J. (1986). Recent development in role theory. *Annual Review of Sociology*, 12, 67-92. doi:10.1146/annurev.so.12.080186.000435
- Boud, D., & Lee, A. (2005). 'Peer learning' as pedagogic discourse for research education. *Studies in Higher Education* 30(5), 501-516. doi:10.1080/03075070500249138
- Brack, A. B., Millard, M., & Shah, K. (2008). Are peer educators really peers? *Journal of American College Health*, 56, 566-568.
- Buissink-Smith, N., Hart, S., & van der Meer, J. (2013). 'There are other people out there!' Successful postgraduate peer groups and research communities at a New Zealand university. *Higher Education Research & Development*, 32(5), 695-705.
- Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organizational analysis*. London, England: Heinemann.
- Crossouard, B. (2013). Conceptualising doctoral researcher training through Bernstein's theoretical frameworks. *International Journal for Researcher Development*, 4(2), 72-85. doi:10.1108/IJRD-05-2013-0007
- Crossouard, B., & Pryor, J. (2008). Becoming researchers: A sociocultural perspective on assessment, learning and the construction of identity in a professional doctorate. *Pedagogy, Culture and Society*, 16(3), 221-237. doi:10.1080/14681360802346614
- Cusick, A. (2000). Practitioner-researchers in occupational therapy. *Australian Occupational Therapy Journal*, 47(1), 11-27. doi:10.1046/j.1440-1630.2000.00195.x
- Cusick, A. (2001). The experience of clinician-researchers in occupational therapy. *American Journal of Occupational Therapy*, 55(1), 9-18. doi:10.5014/ajot.55.1.9
- Cusick, A. (2015). Research training as occupational socialization: Doing research and becoming researchers. *Asian Social Science*, 11(2), 252-261. doi:10.5539/ass.v11n2p252
- Deem R., & Brehony, K. (2000). Doctoral students' access to research cultures - are some more unequal than others? *Studies in Higher Education*, 25(2), 149-165. doi:10.1080/713696138



- Fenge, L. (2012). Enhancing the doctoral journey: The role of group supervision in supporting collaborative learning and creativity. *Studies in Higher Education, 37*(4), 401-414. doi:10.1080/03075079.2010.520697
- Hortsmanshof, L., & Conrad, L. (2003). Postgraduate peer support program: Enhancing community. *Learning for an Unknown Future, Proceedings of the 26th HERDSA Annual Conference, Christchurch, New Zealand, 6-9 July 2003*. Retrieved from <http://www.herdsa.org.au/wp-content/uploads/conference/2003/papers/HERDSA47.pdf>
- Hunt, J., & Swallow, V. (2014). A peer-driven community-based doctoral supervisory model: Development from an evaluation of an ethics workshop for health care professionals undertaking research with children. *Health Science Journal, 8*(2), 145-165.
- Kiley, M., Boud, D., Cantwell, R., & Manathunga, C. (2009). *The role of honours in contemporary Australian higher education*. Retrieved October 1, 2014, from: <http://www.olt.gov.au/project-role-honours-contemporary-anu-2007>
- Kiley, M., Boud, D., Manathunga, C., & Cantwell, R. (2011). Honouring the incomparable: Honours in Australian universities. *Higher Education, 62*(5), 619-633. doi:10.1007/s10734-011-9409-z
- Lindén, J., Ohlin, M., & Brodin E. M. (2013). Mentorship, supervision and learning experience in PhD education. *Studies in Higher Education, 38*, 639-662. doi:10.1080/03075079.2011.596526
- Malfroy, J. (2005). Doctoral supervision, workplace research and changing pedagogic practices. *Higher Education Research & Development, 24*, 165-178.
- McAlpine, L., Jazvac-Martek, M., & Hopwood, N. (2009). Doctoral student experience in education: Activities and difficulties influencing identity development. *International Journal for Researcher Development, 1*, 97-109.
- Murakami-Ramalho, E., Militello, M., & Piert, J. (2013). A view from within: How doctoral students in educational administration develop research knowledge and identity. *Studies in Higher Education, 38*, 256-271.
- Pilbeam, C., & Denyer, D. (2009). Lone scholar or community member? The role of student networks in doctoral education in a UK management school. *Studies in Higher Education, 34*(3), 301-318. doi:10.1080/03075070802597077
- Pilbeam, C., Lloyd-Jones G., & Denyer, D. (2013). Leveraging value in doctoral student networks through social capital. *Studies in Higher Education, 38*(10), 1472-1489. doi:10.1080/03075079.2011.636800
- Stamenkovic, A., & Camer, D. (2012, September). *Honours Pass Program, Most Outstanding Team Award*. Presentation at the 8<sup>th</sup> National PASS Forum, Melbourne, Australia.
- Stubb, J., Phyhalto, K., & Lonka, K. (2012). Conceptions of research: The doctoral student experience in three domains. *Studies in Higher Education, 37*(4), 441-458. doi:10.1080/03075079.2011.651449
- Taylor, C. A. (2011). More than meets the eye: The use of video narratives to facilitate doctoral students' reflexivity on their doctoral journeys. *Studies in Higher Education, 36*(4), 441-458. doi:10.1080/03075071003714115
- Weidman, J. C., & Stein, E. L. (2003). Socialization of doctoral students to academic norms. *Research in Higher Education, 44*(6), 641-656.

- Wood, K. (2006). Changing as a person: The experience of learning to research in the social sciences. *Higher Education Research & Development*, 25(1), 53-66. doi:10.1080/13600800500453162
- Zeichner, K. M., & Gore J. M. (1990). Teacher socialization. In W. R. Houston (Ed.), *Handbook of research on teacher education*. (pp. 329-348). New York, NY: MacMillan.