Learning and Teaching Investment Fund 2011

Final Project Report

Title of project:

Contribute: Peer learning for inclusive practice in Art and Design

Strategic objective(s) addressed:

The original Contribute: Peer learning for inclusive practice in Art and Design LTIF proposal was submitted under the low Socio Economic Status (SES) Higher Education Students Category. The original submission was, therefore, specifically aligned to the strategic objective ‘to support the participation, retention and/or success of low Socio Economic Status (SES) higher education students’. However, given the difficulty of identifying and accessing tracking data for low SES students at RMIT, the selection panel determined that the project should be re-focused for all students. The project was, thus, funded under the general LTIF category and adjusted accordingly (i.e. not specifically aligned to low SES students/funding).

The strategic objective/s the project was adjusted to address was:

__ to be global in reach and impact
X to be work-relevant and industry-partnered
__ to be urban in innovation and impact
__ to support the participation, retention and/or success of low Socio Economic Status (SES) higher education students in undergraduate studies.

This project responded to the above strategic objective and was designed to benefit the entire student cohort. It included the design and implementation of an up-to-date integrated peer learning approach into the first year of core programs in Art and Design aimed at supporting the development of industry relevant capabilities. This involved interrogation of the curriculum, course design and assessment, as well as teaching modes and practices. In addition, it directly responded to the strengthening of the cohort experience, an approach being championed through the Vice-Chancellor’s Red Paper on RMIT’s strategic plan 2011-2015, ‘Where Bold Hopes Can Be Realised’.
Project leader/s:

Professor Barbara de la Harpe  
Deputy Pro Vice Chancellor, Learning and Teaching, DSC
Dr Scott Mayson  
Lecturer, Architecture and Design, DSC
Thembi Mason  
Senior Advisor, DSC College Office, DSC
Professor Richard Blythe  
Head of School, Architecture and Design, DSC
Professor Elizabeth Grierson  
Head of School, Art, DSC

Contact details:

Professor Barbara de la Harpe,  
Deputy Pro Vice Chancellor, Learning and Teaching  
DSC  
99251924  
barbara.delaharpe@rmit.edu.au

Project team members:

Leadership Team

- Barbara de la Harpe, DSC College Office, DSC
- Megan McPherson, Principal Project Manager, DSC College Office, DSC
- Angela Clarke, Co Project Manager, DSC College Office, DSC
- Thembi Mason, DSC College Office, DSC

Project Team

- Dr Scott Mayson, Lecturer, Industrial Design, Architecture and Design, DSC
- Liam Fennessey, Acting Program Director, Industrial Design, Chair Learning & Teaching, Architecture and Design, DSC
- Kellyann Geurts, Senior Lecturer, Art, DSC
- Dr Anuja Cabraal, Qualitative Analysis, DSC College Office, DSC
- Nicholas Faulkner, Quantitative Analysis, DSC College Office, DSC

Author/s of the report:

Barbara de la Harpe  
Megan McPherson  
with statistical support from Anuja Cabraal and Nicholas Faulkner  
with editorial support from Thembi Mason

2012
## Contents

1. Executive Summary 5
2. List of Outcomes 6
3. Project Outcomes and Impacts 10
   3.1 Background and Overview of peer learning in action 10
   3.2 Project Outcomes 16
      - Outcome 1 Improved student experience (as evidenced by student achievement and student feedback data) 16
      - Outcome 2 Enhanced staff knowledge of adapting curriculum to integrate a peer learning process 24
      - Outcome 3 An integrated peer learning model, with accompanying self-directed online module 29
      - Outcome 4 Evaluation of the suitability of mobile technologies to support an integrated peer learning model 30
      - Outcome 5 Presentations to University of integrated peer learning model and scalability of model for adoption in other areas 36
      - Outcome 6 A number of scholarship of learning and teaching (SoTL) papers for publication that document practice and experiences 36
   3.3 Describe briefly any issues that may have prevented you achieving all the outcomes stated in the application 37
   3.4 Describe any disciplinary and interdisciplinary linkages that have emerged as a result of the project 37
4. Dissemination strategies and outputs 38
5. Evaluation of project outcomes 41
6. Budget report 42
7. Appendices 43
   - Appendix 1: Analysis of Student Feedback, Student Achievement and Staff Survey 43
   - Appendix 2: Student Survey questions 109
Acknowledgement
We sincerely thank the first year students and lecturers of the School of Art and School of Architecture and Design for their generous contribution and willingness to participate in this project. We also acknowledge Dr Anuja Cabraal and Nicholas Faulkner for their outstanding statistical analysis and support. Finally, we thank RMIT University for funding this project through the 2011 Learning and Teaching Investment Fund.

List of abbreviations
LTIF: RMIT University Learning and Teaching Investment Fund
SoA: School of Art
SoAD: School of Architecture and Design
ID: Industrial Design
SSGs: Studio Study Groups
1. Executive Summary

In this LTIF project a structured peer learning approach was trialled in Semester 2, 2011 in core first year courses in the Fine Art program in the School of Art and in the Industrial Design program in the School of Architecture and Design. The peer learning approach provided students with time to work together in study groups to provide peer feedback on their studio projects. The program included concurrent support workshops, the use of mobile technologies appropriate to the disciplines, and the development of online learning and teaching support materials. The peer-to-peer learning activities were specifically designed to extend, enhance and maximise studio learning. The project was designed, implemented and evaluated using a mixed methods ADRI (Approach, Deployment, Reflection, and Improvement) action cycle methodology. For students, this involved exploring whether the approach enhanced their overall learning experience and academic achievement (including social inclusion). For staff, it explored the integration a peer learning process on staff knowledge of adapting curriculum.

Overall, outcomes were positive, especially for the Industrial Design student cohort. The majority of students reported that the program enhanced their learning and played a role in their personal and interpersonal development, including enhancing self-assessment; management of learning and how to learn; persistence; critical enquiry and reflection; communication and articulation of knowledge, understanding and skills; and confidence in giving and receiving feedback. In addition, and again especially for those in Industrial Design, it was enjoyable and led to socialising with peer group members outside of class. Where the program was explicitly included as part of assessment, it impacted positively (statistically significantly) on students’ overall academic achievement. Staff who engaged reported an increase in knowledge of adapting and aligning curriculum to incorporate the peer learning approach. Paying attention to and aligning with existing disciplinary practices; selecting a sufficiently authentic and complex peer learning task; using appropriate technology that has student endorsement and aligns with their expectations and current technology use and practices; introducing the approach carefully to ensure both staff and student buy-in; managing workloads as well as time and task expectations; while also gently nudging fixed or strongly held teacher centred role conceptions were identified as most critical to successful integration.

The peer learning approach has been recognised as a LEAD volunteer program by RMIT University Student Services, through the RMIT Student Leadership Development program, making it the first Academic Study Group Facilitation Program to be recognised at RMIT. The project is also providing an opportunity to engage in and disseminate the scholarship of teaching and learning in Art and Design disciplines through presentations and forthcoming conference and journal publications.
## 2. List of Outcomes

Below is an overview of the project's outcomes and impact.

<table>
<thead>
<tr>
<th>Project Outcomes</th>
<th>Project Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome 1</strong> Improved student experience</td>
<td>In terms of <em>student achievement</em>, the project findings show that the average grade in the year that the peer learning studio study groups (SSGs) were introduced was higher than the average grade for the preceding three years. This suggests that SSGs may lead to higher grades. For the Industrial Design students, results showed that the mean grade in 2011 was significantly higher than the mean grade for 2008, 2009 and 2010 combined. Overall, the findings show that the average grade in courses that explicitly assessed peer learning was higher than the average grade for courses that did not.</td>
</tr>
<tr>
<td>(as evidenced by student achievement and student feedback data. See Appendix 1)</td>
<td></td>
</tr>
</tbody>
</table>

In terms of *learning*, the overwhelming majority of students (88%) who responded to the survey reported that they found giving feedback in their peer studio groups helped them with their learning. For Industrial design students, the overwhelming majority (80%) reported that participating in the peer learning studio study groups enhanced their overall learning experience. Additionally, 71% of all students agreed or strongly agreed with the CES additional item that they thought that their studio study groups were helpful in assisting them to gain useful insights into their work.

In terms of *confidence* with peer feedback, the overwhelming majority of students (88.1%) reported that they had confidence in the feedback from members of their studio study groups. The percentage was similar for both groups; 86% for Industrial Design and 90% for Art students. In addition, the overwhelming majority of students (91%) reported being confident in giving their peers constructive feedback.

In terms of *enjoyment* almost three quarters (73%) of the Industrial Design students indicated enjoyment of the studio peer learning.
experience, while in Art, just under half (47%) reported enjoyment. In terms of socialising, results revealed that those who met with their peer studio study groups more frequently, whether in-class or outside of class, were more likely to have also engaged in social activities with members of their peer studio study groups.

In terms of personal and interpersonal development, students reported that the peer feedback process helped or motivated them in a number of ways including, helping them to appreciate how they were getting on; understand specific course content and where they had gone wrong; organise their approach to projects and subsequent projects; and motivate them to keep going and to try harder.

Outcome 2

Enhanced staff knowledge of adapting curriculum to integrate a peer learning process

In terms of enhanced staff knowledge of adapting the curriculum to integrate peer learning, all fourteen staff who were involved in the project (4 in Industrial Design and 10 in Art) integrated peer learning into their courses and adapted their course guides in some way. Overall, half the staff (all 4 staff in Design and 3 of the 10 in Art) showed their commitment and willingness by adapting the assessment in their courses to include a focus on peer learning. In Industrial Design the first year course was redesigned to embed peer learning in group activities and the assessment adapted within the content and context of the discipline. Twenty percent (20%) of the first year core Industrial Design course assessment has been allocated to peer learning activities and students are now required to produce a reflective learning journal outlining their projects and the contribution of peer interaction and feedback to the process. Of the nine art courses, three have allocated 10% to assessment of peer learning activities. This is a positive outcome, given that changes in higher education assessment practices are reported in the literature as being notoriously difficult to impact. The use of peer learning will continue in both Schools in 2012 and the approach is also being expanded into TAFE programs in the School of Art, Media and Communication and Fashion and Textiles.
## Outcome 3

**An integrated peer learning model, with accompanying self-directed online module**

In terms of a model and self-directed online peer learning module, a Peer Learning Tertiary Educator Guide for academic staff and a student online Peer Learning Support Module, initially in Blackboard, have been developed.

The Tertiary Educator Guide is currently being further developed for the RMIT University DSC L&T website.

In addition, the *Contribute: Peer learning for inclusive practice in Art and Design* project has developed a suite of support tools to implement peer learning into studio teaching. These include:

- A peer learning website for students based on the peer learning module (Blackboard wiki) utilised in semester 2, 2011 in the *Contribute: Peer learning for inclusive practice in Art and Design* project. This will allow greater access to more students and will be linked into myRMIT studies or easily accessed by staff and students directly through a link from other platforms, blog, Facebook page etc.

- A LEAD handbook for students to develop leadership and facilitation skills for peer study groups.

## Outcome 4

**Evaluation of the suitability of mobile technologies to support an integrated peer learning model**

In terms of the suitability of mobile technologies to support an integrated peer learning model, a number of factors were identified as critical to the uptake and use of mobile technologies namely; alignment with existing discipline practices, familiarity with online tools, a user unfriendly system, appropriate workloads, sufficient time, and strong integration and teacher encouragement and support.

## Outcome 5

**Presentations to University of integrated peer learning model and scalability of model for adoption in**

In terms of presentations and adoption in other areas, a number of presentations were made and the peer learning program adapted and adopted as follows:

- 9/8/2011
  - *Cohort Experience Project Forum*. The Contribute project was presented at the...
28-30/11/11
*Peer learning expert Dr Don Lebler.* A series of 4 meetings and presentations on Peer Learning and Assessment processes in the Contemporary Music Program at Griffith University were organised for DSC Schools, L&T academic Development staff and Senior Advisors as well as wider university audiences (approximately 60 University colleagues attended).

*Podcast/s.* A number of podcasts with bite-size information focused on peer learning, peer review and assessment are in progress. These will accompany the Tertiary Educator Guide.

*LEAD Academic Study Group Facilitation Program.* The Contribute project peer learning approach has been recognised as a volunteer program by RMIT University Student Services, through the RMIT Student Leadership Development program. This makes it the first Academic Study Group Facilitation Program to be recognised at RMIT.

14/9/11
*Learning Lab and Study skills.* A discussion with RMIT student services about wider uses for the Studio study group website has resulted in the University website being linked into the Learning lab and study skills site in 2012. This will make it widely accessible to both learning advisors and all RMIT students.

<table>
<thead>
<tr>
<th>Outcome 6</th>
<th>A number of scholarship of learning and teaching (SoTL) papers for publication that document practice and experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In terms of publications, a conference presentation and a refereed paper in the agIdeas Design for Business and Industry <em>International conference paper and presentation</em> are forthcoming 22/5/2012. Only 32 Abstracts were accepted from over 200 submissions.</td>
</tr>
<tr>
<td></td>
<td>Journal articles for publication in <em>Academic journals</em> are in progress.</td>
</tr>
</tbody>
</table>
3. Project Outcomes and Impacts

3.1 Background and Overview of peer learning in action

Contribute: Peer learning for inclusive practice in art and design, was designed as a year-long, student-led, scaffolded peer learning Academic Studio Study Group Facilitation Program implemented in Semester 2, 2011. The program supported and extended unsupervised studio time in the first year of two Creative Arts programs, one in Art and the other in Industrial Design.

The model of peer learning implemented was based on the reciprocal peer learning model described in Boud, Cohen & Sampson (2001). In this model students in the same course contribute to other students’ learning while learning themselves (Boud, Cohen & Sampson, 2001). The model is underpinned by a social construction of knowledge paradigm (Boud, Cohen & Sampson, 2001) with links to collaborative, co-operative and independent learning where students are required to work together (Bruffee, 1999). Within this model, the discipline lecturer takes the role of facilitator handing over more control to learners through the negotiation of learning outcomes and assessment methods (Boud, 2001). In line with Topping and Ehly, the peer learning approach adopted was aimed at the “…development of knowledge and skill through explicit active helping and supporting amongst status equals or matched companions, with the deliberate intent to help others with their learning goals and is considered a sub-set of the wider field of cooperative learning” (Topping & Ehly, 2001, p. 114).

In late 2010, the Project Leader was invited into the School of Art Student Staff Consultative Committee to discuss changes to the undergraduate Art program that were being proposed at that time. The School of Art was undertaking a major change in the way it operated studio courses. It was clear that students were committed to the school and their chosen discipline and especially valued studio learning and practice. During the meeting, a student in Painting made the suggestion that if supervised hours were to be reduced one way to enhance studio learning would be for the school to involve students in providing feedback to one another, including third and second year students working with first years. From this student suggestion the LTIF proposal for Contribute: Peer learning for inclusive practice in Art and Design that involved student led peer review and feedback grew. Thus, the project owes its roots to a student inquiry into the possibility of peer learning within the Art studio.

In the following year, 2011, a formalised peer learning model was implemented in core studio courses in the first year of two Creative Arts programs, one in Art and the other in Industrial Design and adapted for each local context. The main area of inquiry was whether peer learning could effectively support and meet the learning needs of first year university students and be embraced by both students and staff in Art and Design studio disciplines.
Core to the model was the use of peer studio study groups. The Studio Study Groups were designed to encourage a formalised and more structured student led peer-to-peer interaction. The studio study groups were envisioned as an opportunity for students to get together to work in the studio or learning environment to give one another formative feedback and to support one another building the range of personal and interpersonal skills and attributes that complement academic ability. These notably include, working with others; critical enquiry and reflection; communication and articulation of knowledge, understanding and skills; managing learning and how to learn; and self- and peer assessment (Boud, 2001).

The Studio Study Groups encouraged a formalising of learning experiences in the university studio based on the giving and receiving of feedback outside of class time and without the direct supervision of the course lecturer. Peer groups comprised 3 to five students and provided an opportunity for peer-to-peer interaction outside of studio class time. Leadership of the groups was driven by students. In line with Boud, 2001, the adoption and enacting of different roles within the groups was flexible and fluid, responding to the different needs of the individual group members. The study groups were formed variously in courses in line with local disciplinary requirements, and with respect to and building on “...existing structures and designs of programs and the educational values held and represented in teaching and assessment practices” (Sampson, Boud, Cohen & Gaynor 1999, p.7). A participatory design to contextualise the peer learning approach in individual courses was adopted, including localised support to adapt and contextualise for different disciplines.

**Industrial design studio study groups**

The Industrial Design program is a four year undergraduate degree and describes itself as ‘give[ing] significant scope to exploring established and emerging disciplinary concerns through learning by actively designing (RMIT University, 2012, Industrial Design discipline, para. 2). The course defines its pedagogy as ‘a critically engaged mode of enquiry’ (RMIT University, 2012, Industrial Design discipline, para. 1). The formalised peer learning study group approach was implemented in a core fist year studio course involving 60 students across 4 tutorial groups. The course was a second semester, 24 credit point course and encompassed both, production workshop (3 hours per week) and studio based components (3 hours per week) over 12 weeks.

The course was taught by a team of design academics; two sessional lecturers and two ongoing academic lecturers using the same course guide. myRMITstudies was used to share resources between the teaching team and students. A proprietary suite of specialised design software instruction (Solid Professor) was also utilised to support student learning.

The peer learning approach in Industrial Design utilised student project teams or study groups of between 3-4 students in 4 groups working with project briefs with timelines and milestones.
Twenty percent (20%) of the Industrial Design course assessment was allocated to peer learning activities. Students completed 2 project briefs in the course that is students worked with 2 different studio study groups of between 3-4 students across the semester. Studio study groups were formed for each project, the students were reformed with different members for the second project in the latter half of the semester. Students were required to produce a reflective learning journal outlining their projects and the contribution of peer interaction and feedback to the process.

Art studio study groups

The *Art program is a 3 year undergraduate degree with specialisations in ceramics, drawing, gold and silversmithing, media studies, painting, printmaking, photography and sculpture* (RMIT University, 2012, School of Art discipline, index). In Art, 9 core first year studio courses involving 198 student enrolments. In the first year of the program students have two core courses in their studio specialisation and have the opportunity to do core courses in other studio specialisations as electives. Thus, some students were involved in multiple formalised peer learning activities depending on the courses in which they were enrolled.

The peer learning approach also used studio study groups of between 3-4 students. Each course enacted the Studio Study Groups in different ways through different activities. Typically, most of the art lecturers added a 250 word reflective artists’ statement to capture the peer learning outcomes using existing or adapted course project work. The reflective artists’ statement was seen as a useful addition to assessment because of the relevance of scaffolding the activity of writing artist statements with in the art industry, and the insights into student learning that come via reflection on the art making process. Of the nine art courses, three courses allocated 10% to assessment of the peer learning activities. In the Art courses, all of the assessment outcomes were assessed by the lecturer/lecturer team.

Student support

The Studio Study Groups were supported by an online module that was placed in myRMITstudies online for each studio course. Available at

http://emedia.rmit.edu.au/studio-study-groups/

The module contained information and links for first students that covered both forming studio study groups; developing art and design study skills; developing reflective processes; how to give and receive feedback; and strategies for transitioning into university study. This was developed primarily for the art and design studio students given expectations and assumptions about learning and how to learn in studio disciplines are not explicitly stated and/or easily translated or discerned by learners (Belluigi, 2009; Blair, 2006; Devas, 2004; Percy, 2003; Webster, 2003).

Below is an excerpt from the module.
Blogs and Wikis were also set up for students to share work; give and receive feedback; distribute student produced resources in an online environment; add flexibility and access for students who had commitments in addition to their studies (James, Krause & Jennings, 2009). The Blogs and Wikis were envisioned as a space for communication and support for students to access resources and to utilise in the giving and receiving of feedback from their peers, with or without involvement of their lecturers within studio course learning environment in line with Percy’s study of studio-based study with online tools in the design studios (Percy, 2003).

Students in both Art and design courses were briefed about the Contribute project in week 12 of semester 1, 2011. At this time students were alerted to the opportunity offered by RMIT University Student Services to an iPod scholarship for students meeting the criteria of low income and need. This opportunity was negotiated with the RMIT Student Services area to support students with a low income and with no other form of mobile technology device that could link into the University’s wireless network. This was to support student access that was inclusive as possible in a fair and equitable way. RMIT University Student Services awarded 36 iPod Scholarships for Semester 2, 2011. iPod Touches were selected as the mobile networked device for the scholarships in early 2011. At the time of selection, iPod Touch met criteria of cost, functionality and usability and provided audio, video and camera functions to comparable devices. The issue of accessing myRMITstudies via Safari (as known IT issue) could be worked around with a free browser application. This enabled students to access the internet for visual reference material and library catalogue and university email, myRMITstudies and the peer learning support module. The
scholarship process conducted by Student Services via student email, and was kept separate from the project.

Further briefings were held in Week 1 of semester 2, 2011 to distribute project information and invite participation for participation in the evaluation process. Expressions of interest from students to participate in a LEAD program were also collected at this point.

Students self nominated to participate in a RMIT University Student Development LEAD program that was designed by the Contribute study to support the student leadership of the Studio Study Groups. LEAD recognition required students to attend 5 hours of workshops (2 x 2.5 hours in weeks 3 and 6) and an additional 15 hours of activities, which in this case was the facilitation and/or leadership of their Studio Study Group. Students who met this requirement received recognition on their testamur for their communication and facilitation of their Studio Study Group and a certificate from the University’s Vice Chancellor.

The LEAD program provided an opportunity for students to gain leadership development recognition through the formal University Student Engagement and Leadership Development program. The leadership program covered concepts and activities focused on how to form a peer-to-peer study groups, how to develop peer study group agreements, how to work as a group; as well as developing academic assertiveness, responsibility, accountability skills and attributes as student—artists and —designers. Resources framing the activity of giving and receiving feedback were collated in a LEAD student handbook and included critical thinking questions and statements, self-assessment questions, a generalised feedback rubric to guide feedback to peers customisable by students and/or teachers, and a ‘describe-interpret-evaluate-plan’ heuristic to guide the writing of peer learning reflective responses.

The LEAD Academic Studio Study Group Facilitation Program was championed by project staff from within the Schools. A handbook was developed and financial assistance provided to enable informal coffee meetings with students and champions. The meetings provided an opportunity to discuss how the Studio Study Groups where progressing and for timely interventions if there were issues occurring.

This established Contribute as the first Academic Study Group Facilitation Program to be recognised as a volunteer program by RMIT University Student Services. All other RMIT University academic peer mentoring/ peer teaching programs (18) use senior students mentoring more junior learners.

Academic staff support

Academic staff were supported in various ways. A peer learning project champion was appointed in each school and time release equivalent to 10 days in Semester 1 and one day a week in Semester 2 of a day per week was provided to the staff member. Champions were required to lead the project in the local context, and to oversee and coordinate the student LEAD component.

In Industrial Design the first year course was redesigned to embed peer learning in group activities and assessment adapted within the content and context of the discipline. The online course space on myRMITstudies was configured so that students could access resources that they would need during the semester, such as
links to specialised learning software resources and included the online module developed by the Contribute project. Time release was provided in semester one for a staff member to work on integrating peer learning into the course and in the second semester two staff shared the time in support of project implementation.

In Art, prior to the beginning of semester 2 in mid July, two 2-hour sessions for Art staff were facilitated by an educational developer involved in the project to encourage participation in the project; to scope the possibilities of suitable peer learning opportunities within existing course content and contexts; and to adapt course guides, assessment weightings and outcomes for peer learning activities. The educational developer also worked closely with staff to develop student peer learning briefing documents and assessment heuristics based on or adapted from existing course content. During the semester, individual and/or group meetings were conducted with Art staff on an informal basis. Art staff also invited project staff to attend classes, to discuss issues with project and/or with students, especially concerning the use of online activities. This occurred on two occasions late in the semester.

In summary, the peer learning approach that the project designed, implemented and evaluated was exactly the kind of approach that the literature suggests has the greatest likelihood of success given that it aligned with “[s]tructured first-year programs, including learning community strategies, offer exciting possibilities for enriching student persistence, increasing student connectedness to the college experience, and enhancing the quality of learning” (Thayer, 2000 p.7).

Project evaluation

All students and academic staff who were involved in the studio peer learning programs in the two schools were invited to participate in the evaluation of the approach. Data was collected by.

- administering a student online survey in week 13-16
- conducting separate focus groups with ID and Art students (in week 6, 10 and 12)
- adding five supplementary questions to the course evaluation survey (CES)
- administering an online staff survey (6-19th December 2011)
3.2 Project Outcomes

The project achieved all the outcomes it was designed to achieve. In this section how the five project outcomes presented in section 2. List of Outcomes above were realised is discussed in detail.

**Outcome 1 Improved student experience (as evidenced by student achievement and student feedback data)**

Overall, based on an analysis of student feedback data and student grades as shown below, the project resulted in an improved student experience, including enhanced learning (especially for the Industrial design students), confidence, enjoyment and socialising, notably where the peer learning approach was included in the course assessment and was integral to the discipline and course curriculum.

*Evidence from student feedback data*

An online survey comprising 45 items that explored student perceptions of peer learning including academic and social aspects (see Appendix 2) was administered in week 13-16 of semester two. Questions focussed on:

- How the peer study groups worked
- What they did in their peer study groups
- Whether or not the peer study groups enhanced their learning
- Whether or not they enjoyed working in the peer study groups
- What their learning preferences were
- How they used the online resources
- What resources they valued
- Whether or not feedback helped them and in what ways
- Whether or not they were continuing their studies next year
- What they used the ipods for if they received/had one
- What overall feedback they wanted to highlight

Sixty students responded to the online survey, representing a 23% response rate (60 of 258). Of the 60 respondents, 23 were male and 37 female, while 17 were from Industrial Design and 42 were from Art. See Appendix 1 for detailed analysis by item.

Overall, the overwhelming majority of students reported receiving feedback from their studio study group regularly. For Industrial Design (ID), 73% of students reported receiving feedback from their Studio Study Groups weekly or every couple of days; 20% received feedback fortnightly or monthly, while 6.7% daily. Not one student reported not receiving feedback. For Art 38% of students reported receiving feedback from their Studio Study Groups weekly or every couple of days, 41% reported receiving feedback fortnightly or monthly, while 9%
daily, with 12.5% reporting that they never received feedback. See Appendix 1 Question 27.

This finding was supported by the feedback from the additional CES items, where 69% of students reported that they strongly agreed or agreed with the statement that they met with their study group regularly (at least once a fortnight): 84% for Industrial Design students and 42% for Art students. In terms of contributing to the Studio Study Group by giving feedback to others the majority (63%) reported that they did so; with 78% of Industrial Design students and 54% for Art students agreeing or strongly agreeing that they contributed to their studio study group by providing feedback to others.

In terms of learning, the overwhelming majority of students (88%) who responded to the survey reported that they found giving feedback in their peer studio groups helped them with their learning. For Industrial design students, the overwhelming majority (80%) reported that participating in the peer learning studio study groups enhanced their overall learning experience. Additionally, 71% of student agreed or strongly agreed with the CES additional item that they thought that their studio study groups were helpful in assisting them to gain useful insights onto their work. For art students, the response was mixed, with just over half (51%) reporting enhancement of their learning experience. Art student feedback to the CES additional item showed that 42% of student thought that their studio study groups were helpful in assisting them to gain useful insights onto their work. Results of a chi-square test supported this indicating that the percentage of students who said SSGs 'enhanced' their learning was significantly higher in the ID group than in the Art group, $\chi^2(1, N=51) = 7.16, p=.01$, Cramér's $V=.38$.

The two main areas where students reported giving feedback helped their learning were in clarifying their own thoughts and ideas (1 from ID and 11 from Art), and helping them improve their own work (7 from ID and 5 from Art). Two students from Art reported that giving feedback also helped with their confidence and four students (3 from ID and 1 from Art) believed that it prompted them to think about the way they communicated. In addition, ID and Art students provided a wide range of examples of how feedback helped them reflect on their own learning project work.

In response to Question 34, please tell us how you think giving feedback helped you, Industrial Design students stated:

*The feedback helped me overall improve my work, it gave another perspective on how others see what I am trying to say/do.*

*When you learn something - that is the first step. feedback is a form of teaching and appraisal - when you teach something you learning better - that is the second step.*

*It helped me further improve my design. I am new to design course, this is my first year doing something related to arts (It is taboo to my Asian family culture) hence, I appreciate that the feedback helped me learn as much as possible and as fast as possible.*
When looking at others' work, you can see where you can improve your own, it also improves communication skills for when negative feedback is required.

Art students responded stating:

- It made me engage with what was going on around me, with other people's approaches, from which I could better my own approach by learning from their mistakes, success, and the information they had acquired to aid their studio practice.

- Thinking critically about/analysing other student's work helped me think more deeply about my own work.

- Giving feedback helps provide clarity for my own work practices.

- It helps look at your work from a different perspective and maybe step back and see a bigger picture.

The LEAD focus group data confirmed this finding with students commenting about enhanced communication skills, leadership and helping strategies as follows:

- The advantages have been in helping me communicate in what I'm thinking with every issue in my group and feel more confident about being positive rather than just being angry which I was. Strategise better, that's been an advantage. (ID)

- Has it helped? … I think it's helped. I mean I guess when all the students are together and we're all talking to each other and then someone will ask “how do you do this?” and we kind of think you can help out ….. I think it gave us more of a reason to kind of step in to the leadership role instead of saying “I'll ask the teacher”, I'll ask the lecturer”. It's like I can sign off that I've helped someone and kind of help out and it makes you want to help more (Art)

Only six students (2 from ID and 4 from Art) reported that giving feedback did not help them in the open ended question section in the online survey (Question 33). One student stated that they lacked the technical skills to give feedback commenting that: "The majority of the class have experience in G&S, whereas I do not. Hence I cannot give feedback on the technical side of things. As for their designs etc, it's entirely up to them to decide what they should choose to do.", while another student provided a general comment about feedback saying: "Well it wasn't so much feedback but passing on useful ideas that may or may not be used by that person. What a person chooses to do when they're given new info to open up other possibilities is entirely up to them. I don't really care if they learn from it or not. They asked and I simply gave them the info."

In terms of confidence with peer feedback, the overwhelming majority of students (88.1%) reported that they had confidence in the feedback from members of their studio study groups. The percentage was similar for both groups, eighty six (86%) percent for Industrial Design and 90% for Art students. In addition, the overwhelming majority of students (91%) reported being confident in giving others
constructive feedback. In addition, students provided a wide range of examples where they felt confident responding to the feedback another student provided. Students reported being most confident when they understood and could use the feedback (1 from ID and 2 two from Art); when they needed technical advice or were unsure of how to proceed (3 from Art); when they received only positive feedback (1 from ID); when they received feedback in person (2 from ID; 1 from Art), when they received both positive and negative feedback (1 from ID); and when feedback was received from a ‘professional’ (1 from Art).

Examples of comments about enhanced confidence from Art students included:

Having to actually verbalise my responses to my peers work was a challenge, but the more I do it the more confident I become.

It gave me confidence which I have never had.

I find this really hard to describe, affirmations of my work led me to feel braver and more confident about trying more adventurous(ous) concepts.

LEAD students in the focus group commented that in terms of confidence, the workshops and activities gave them a sense of confidence to take on leadership roles within the studio, commenting as follows:

I think...that people don’t generally express, they don’t naturally have some of those skills and would really benefit from this [LEAD training], would become far more integral, important role persons in the class. (ID)

Well that’s where a bit of this leadership training comes in handy because you could shape and mould someone who might necessarily be a quiet person to be that catalyst who could potentially ignite a group. (ID)

Establishing working as the team and realising people’s strengths, and lots of disregarding the weaknesses but people like (student) coming out and being really good at CAD and helping us all and I don’t know, everyone’s trying, it’s good. (ID)

It’s like you become more aware of your role within the studio, which is very much a community so you...instinctively there are leadership roles that need to be filled and having that experience you now have the skills to fill them and things just function better especially with our work and what we are doing and the gallery journals and what not. It helps us to understand our own practice and talk to other people about our practice and what not. (Art)

...because it was kind of like formal, it formalised things in a way so that when I did come back to the studios I felt that I had, not so much authority but that’s the closest word I can think of, like I had the authority to act like a leader. (Art)

In terms of enjoyment (see Appendix 1 question XXX), almost three quarters (73%) of the Industrial Design students indicated enjoyment of the studio peer learning experience, while in Art, the results were mixed, with just under half (47%) reporting enjoyment. However, analysis indicated that there was no
statistically significant difference between the two groups' levels of 'enjoyment' \((U = 216.5, N = 51, p = .21)\). To ensure that this result was not being affected by two respondents who had selected both Yes and No, analyses were also conducted without those respondents (they were included in the first test). Since this makes the 'enjoyment' measure dichotomous (Yes/No) rather than ordinal (Yes/Yes and No/No), Fischer's exact test was used. Results again indicated that there was no significant difference between the two groups, \(p = .21\).

In terms of socialising, nearly half (42%) the students reported that they engaged in social activities with their peer studio study group outside of class time. In order to determine whether engaging in peer studio study groups was associated with social capital, two nonparametric correlations were computed. A chi-square test indicated that there was no significant difference between Art and ID students in this regard, \(\chi^2(1, N=52) = 1.05, p=.30\). Cramér’s \(V =.14\). Results did reveal that those who met with their peer studio study groups more frequently, whether in-class or outside of class, were more likely to have also conducted social activities with the members of their peer studio study groups. Spearman Rho correlations are reported in Appendix 1.

Students in the focus group commented that:

\[
\text{I think the group can communicate more with the students in our area so we...especially when we mixed up the group again so I feel it’s good for me to talk to more people. I am a shy person so these things give me an excuse to talk more. (Art)}
\]

\[
\text{Not so much with the level of the studio study group but more something that evolved, became...just the students communicating more with each other so the idea of it was really good but not necessarily the label because it meant people were very conscious of what was going on and didn’t quite realise the benefits of it and what not. We obviously are aware of it because we are involved in it much more...} \text{(Art)}
\]

In terms of personal and interpersonal development, many students, and more frequently for ID than Art students, reported that engaging in the peer feedback process helped or motivated them in a number of ways including:

- Helping them to appreciate how they were getting on (46% overall; 60% ID and 39% Art) [*self assessment]
- Helping them to understand where they had gone wrong (40%; 60% ID and 30% Art) [*self assessment]
- Motivating them to keep going and to try harder (33%; 53% ID and 24% Art) [*managing learning and how to learn] and [persistence]
- Helping them to organise their approach to the project (33%; 60% ID and 21% Art) [*managing learning and how to learn]
- Helping them with subsequent projects(s (31%; 33% ID and 30% Art) [*critical enquiry and reflection] and [managing learning and how to learn]

*shows alignment of the item to the personal and interpersonal skills and attributes identified as an outcome of peer learning by Boud, 2001.
Students in the focus group commented that:

*The thing I think is most valid about having the studio study groups and then the LEAD on top of that is because some people... in our courses we have to do research and it helps to talk about our ideas and stuff but because we don't know each other at first and some people are a lot shier than other, a lot of people... there will be a lot of disparity. Some people will be finding it a lot easier to organise gallery visits and go and have coffee and talk about art with people a lot easier than other people will because they are a lot shyer. So by having the groups, by making formal groups and having formal leaders and stuff it makes it easier for the shier people to get involved, that's where I think it's most valid. (Art)*

In terms of the impact on student decisions to continue with their current studies, a Fisher’s exact test indicated that ID students were more likely than Art students to report thinking that ‘active involvement in the Studio Study Group would make a difference’ to their decision to continue with their current studies, \( p = .00 \). However, notwithstanding this, analysis showed no significant difference, with those who said that SSGs would make a difference no more likely than those who said they would not make a difference continuing with their current studies \( N = 45, p = .36 \).

In terms of student academic achievement the mean mark in 2011 (\( M = 74.37, \ SD = 15.98 \)) was significantly higher than the mean mark for 2008, 2009 and 2010 combined (\( M = 71.71, \ SD = 17.74 \)); \( t(450.93) = -2.32, p = .02 \). In order to determine if marks were higher in 2011 (when studio study groups were introduced, \( N = 258 \)) than they were in the preceding three years (\( N = 918 \)), an independent-samples t-test was computed. These results suggest that the average grade in the year that the studio study groups were introduced was higher than the average grade for the preceding three years, which may suggest that participation in the groups may be associated with increased grades.

Analysis also showed that the mean grade of students in the courses where peer learning was assessed (\( N = 137, M = 74.86, SD = 11.57 \)) was significantly higher than the mean grade of students in courses where it was not explicitly assessed (\( N = 137, M = 72.03, SD = 18.77 \)); \( t(383.24) = -2.09, p = .04 \). Peer learning was assessed in all the Industrial Design courses and in three of the nine Art courses. These results suggest that the average grade was higher in the courses that explicitly assessed peer learning compared to those that did not. This may suggest that assessing peer learning may be associated with slightly higher grades. However, a range of possible confounding variables that limit confidence in this finding can be identified.

In terms of participation in the LEAD program, students (\( N=18 \)) who voluntarily participated in the LEAD program reported significantly positive benefits from LEAD and working in the Peer Study Groups.

Students in the focus group commented that:
I guess it is also something we were shown with these lead workshops, was to look at the situation and figure out how you can best direct it as a leader, so it’s whatever situation you are given. (Art)

Outcomes were particularly impressive for the Industrial Design students (see Appendix 1, Section entitled Differences between Art and Industrial Design (ID) students). Analysis indicated that the SSGs in the ID courses ran in a more structured and focused fashion than those in the Art courses. ID students were more likely than Art students to say that they ‘took turns to present work’ in their SSGs, $\chi^2(1, N=59) = 5.09, p=.02$, Cramér’s $V=.29$. ID students were also more likely to report that each member of their SSGs had a specific role to play in the group, $\chi^2(1, N=59) = 4.67, p = .03$, Cramér’s $V=.28$. Furthermore, ID students were more likely to say that they ‘did course work together’ in their SSGs, $\chi^2(1, N=59) = 6.78, p=.01$, Cramér’s $V=.34$. Analysis also indicated that ID students spent more time ‘on task’ doing things like discussing ‘project content’ and ‘research for the project’ in their SSGs than Art students did. ID students were also significantly more likely than Art students to have discussed ‘project content’ $[\chi^2(1, N=52) = 5.75, p=.02$, Cramér’s $V=.33]$ and ‘research for the project’ $[\chi^2(1, N=52) = 5.39, p=.02$, Cramér’s $V=.32]$ in their SSGs. Moreover, analysis indicated that ID students met more frequently both in-class, $U = 134, N = 57, p = .00$, and outside of class, $U = 120, N = 57, p = .00$. Finally, analysis indicated that the percentage of students who received feedback from their SSGs was higher for ID students than Art students, $p= .00$.

Overall, when comparing the ID and ART implementation of the peer learning Studio Study Groups,

- The percentage of students that said Studio Study Groups enhanced their learning was significantly higher in the ID group than in Art.
- Studio Study Groups in ID courses ran in a more structured and focused fashion than those in Art courses.
- ID students spent more time on task in their Studio Study Groups than Art students did.
- ID students met more frequently both in-class and outside of class.
- ID students found the helping aspects of peer feedback from their Studio Study Groups supported them in their studies.

These findings highlight the importance of implementing peer learning Studio Study Groups that are constructively aligned to the discipline and course. The alignment of learning outcomes, learning tasks and assessment activities places importance on focussing on what the student does and how the activities they engage in define and impact their learning intentions, rather than what the teacher does (Biggs & Tang, 2011). After all, the goal of instructional systems should be to facilitate the transition from feedback to self-monitoring. (Sadler, 1989)
Overall, from the data presented above, the peer learning studio study group program may be seen as not only supporting student learning, but also playing a role in their personal and interpersonal development, including: self assessment; managing learning and how to learn; persistence; critical enquiry and reflection; communication and articulation of knowledge, understanding and skills; and confidence in giving and receiving feedback, especially for the Industrial design students. In addition, for many students and again especially for those in the Industrial Design program, it was enjoyable and led to socialising with their peer group members outside of class time. Where the studio peer study group program was included as part of the assessment, it appeared to impact positively student overall academic achievement in the course.
Outcome 2 Enhanced staff knowledge of adapting curriculum to integrate a peer learning process

Overall, based on an analysis of the staff feedback data presented below, participation in the project enhanced staff knowledge of adapting the curriculum to integrate peer learning. Staff also suggested a number of aspects that they believed were most critical to the design and implementation of a peer learning component.

Evidence from staff practice

All of the 14 staff (4 in Industrial Design and 10 in Art) who participated in the project engaged with the peer learning approach and implemented it in some way in their courses.

Moreover, half the staff (4 in Design and 3 in Art) were sufficiently committed to change the assessment in their courses to include a focus on peer learning. In Industrial Design the course assessment was amended to include a 20% weighting for the peer learning component, while in Art 10% was the typical percentage reallocation to include peer learning. This is a significant outcome since, [assessment is often reported as a key obstacle to curriculum change initiatives (Green et al., 2009; Harvey & Kamvounias, 2008; Rust, 2002) and staff beliefs about their ability to assess plays a major role in influencing their practice. Indeed, assessment has been shown to be the catalyst for surfacing staff beliefs about graduate attributes and staff confidence and willingness to adapt assessment tasks is a major determinant in whether attributes will be integrated into the curriculum (or not).

de la Harpe, David, Dalton & Thomas, 2009, p.112.

Therefore, the task of designing and implementing assessment activities related to [peer learning] graduate attributes is often the point at which issues about embedding [peer learning] graduate attributes come to the fore, that is, the task of assessing [peer learning] attributes is the litmus test of academic staff beliefs about learning and teaching and what they value as the outcomes of their teaching.


Evidence from staff feedback data

An online staff survey comprising 13 items was administered exploring the implementation of the peer learning approach in ID and Art. The Staff Survey (see Appendix 3) was administered in week 16 of semester two. Questions focussed on:

- Implementation of Studio Peer Learning Study Groups (Q1/2/3)
- Resource implications of the Studio Peer Learning Study Groups (Q4/5/11)
• Academic led activities of Studio Peer Learning Study Groups (Q6)
• Student issues (Q7)
• Best and worst, and other aspects of Studio Peer Learning Study Groups (Q8/9/12)
• Demographics (Q13)

Nine of the 14 staff responded to the survey, representing a 64% response rate. Comments about the ‘best aspects of including a peer learning component’ in their courses (Q8) on student outcomes included enhanced learning, skill development and more inclusive and collaborative learning practices as follows:

The opportunity for students to individually look at elements of a design project in depth and to spread the depth of investigation across multiple elements of a project. This meant that all students got to get really good a something but as a collective the response to the ‘whole’ of a project was far more advanced (and greatly accelerated) than if each student was expected to cover all elements equally. Students found that their latent soft skills were actually important and in some instances more useful than specialised design and technical skills. (ID)

The groups allowed for a deeper thinking about work. (Art)

…to extend the students learning outside of the class context and having to write a 250 word statement on their experiences worked out well. (Art)

It created a structure for the students. It allowed the students to ensure they were using their non-contact time in a structured way. It ensured an inclusive environment for students who otherwise may not have ‘reached out’ to other students. (Art)

In addition, in response to the question ‘were there any unexpected outcomes from integrating the peer learning component into the course’ (Q.11), five of the six who responded (one from Industrial Design and four from Art) mentioned only positive aspects about their involvement in the program. The two main themes in the staff responses were that peer learning enhanced student learning (accelerated technical skills, higher degrees and quality of peer critique) and promoted peer support, as indicated by the following staff comments:

Greatly accelerated technical capability, higher degrees and quality of peer critique at an early stage of the degree. (ID)

At the same time, getting the students to reflect on their collaborative, sharing and general working methods did provide some unpredictable responses from students. Even some of the more solo working students reported positively about being able to access advice and assistance when needed. So whilst some students may appear to be working quietly and alone, they are in fact using their fellow students as a resource and vice versa. They were a fabulous and supportive group. (Art)
Comments also indicated that the program encouraged some staff to **reflect on their teaching approaches**. For example, the project was a catalyst for two lecturers in Art who commented as follows:

> As mentioned in previous question, I think I would set different activities if I were to do this in future… Any new way of delivering part of a course will lead to the lecturer reflecting on their own teaching practice, this is a good thing. (Art)

> I think it is positive to have a space in which staff can reflect on their teaching methods, to affirm what we seem to do well, and to build upon areas where we can improve.

A number of **aspects** (in response to Questions 9 and 10) were identified as **most critical to the design and implementation** of a peer learning approach, including:

**Taking into account and being respectful of disciplinary ways of knowing and doing.**

> The disciplinary orientation to collective work is really important in the success of peer learning. Within industrial design working alongside peers is normal - although first year students do not necessarily know this yet. Peer based learning allows students to let go of their own preferences and focus in on the needs of the project and their peers.

**Selecting an appropriate peer learning task** that is well integrated and not seen as ‘bolted on’,

> A clear project structure that is large enough in scope to make sure all students had a space to contribute to the team in a positive and productive way.

> Setting tasks which complement the course rather than re-trace things students already do (and that staff already deliver).

> Having the students want to do it and for them not to see it as an extra activity, this will be helped in the future as the project will not be seen as a pilot research project.
Peer learning should be implemented into general course outlines and not seen as an extra activity that students must do on top of other work. Setting tasks as a separate component to their main workload (as we did with the study) made the students question where this fitted in to the big picture. Some saw themselves as objects of study, which made them self-conscious at best, and irritated at worst.

Considering the **appropriate use of technology**,

Working with the blogs needs some serious consideration. I think the blog may work well for programs that have limited contact time, or a lecture and tute model. Our students work long hours together. Also, the RMIT blogging system is a little clunky. It did seem better when it was one blog that they could all feed into. They don’t have time to check 20 blogs. Online methods - blogs, wikis etc still need to work within the teaching and learning framework and within the rest of the courses delivery methods. They are a tool, not an end in themselves. So how they are used or implemented, and to what end, needs careful consideration.

Paying careful attention to **how the approach is introduced to students**,

I was surprised that the students were so vocal about wanting face-to-face contact.

some students were very vocal about not wanting to do it and not being forced into groups etc...

The students were adjusting to learning and were voicing their opinions, it was all to be expected.

Paying careful attention to **how the approach is introduced to staff** in order to overcome staff resistance to change,

Senior staff who have effective and longstanding teaching methods can be resistant to ‘new’ ways. I think considering this in relation to implementation is important. Sometimes, without even being aware of it, or of saying anything explicitly, staff communicate their opinions to students. So the way in which peer learning is introduced, for example as an extension of what is already happening, rather than as a completely novel method could be a way forward.

…integrating it into the course without labelling it could be one approach.

Managing staff **workloads and time allocations**, including for casual staff,

Like everything in our jobs, time. The allocation of time for ‘administration’ is already absorbed into activities generated by the School and often the college; meetings, committees, etc. Only 1/3 of my job provides for teaching. The other third is taken up with research and administration. There simply isn't enough time to focus on new deliveries and initiatives. We seem to fit in our teaching and learning commitments.
It is a shame that ‘peer learning’ is now being structured around non-teaching time. It means that staff don’t have to time to focus in a way which they would like to facilitate deeper learning outcomes. That would mean time spent in teaching related activities which gets bundled into the ‘ever expansive space called ‘administration’. Pity.

More pressure and demand on staff time. Outside of teaching time. It is irritating that the college forces us to reduce our face-to-face contact with students, but then initiates and implements this systems which eventually creates more work for staff.

Extra contact with students outside designated teaching hours is problematic for casual staff. So any ‘extra’ peer learning activities need to address or take into account this constraint.

Acknowledging while at the same time gently nudging existing staff conceptions about face-to-face contact and gaining endorsement and support both from and for the discipline instructors,

Anything electronic to ‘replace’ face-to-face the students don’t seem to enjoy. They value above everything else face-to-face contact, with staff and amongst themselves.

We need to ensure that time isn’t taken away from the student being physically in the studio environment engaging in the process of ‘making and thinking about art’. As it is more and more time is being lost in the studio for students and ultimately this seems to be the primary reason for them being here in the first place. To work in a studio environment and engaging with staff and peers in a face-to-face mode.

The findings above suggest that staff made changes to their courses, many changed their assessment tasks, found the integration of the peer learning program enhanced student learning and peer collaboration and support as well as promoting reflection on teaching and learning practices. In addition, the aspects identified as most critical to successful integration included paying attention to and aligning with existing disciplinary practices; selecting a sufficiently authentic and complex peer learning task; using appropriate technology that has student endorsement and aligns with their expectations and current technology use and practices; introducing the approach carefully to ensure both staff and student buy-in; managing workloads as well as time and task expectations; while also gently nudging fixed or strongly held teacher centred role conceptions about learning and teaching.