STUDENT FEEDBACK AND LEADERSHIP

A report on the 2006 Leadership for Excellence in Learning and Teaching Project (LE67)

Developing Multi-Level Leadership in the Use of Student Feedback to Enhance Student Learning and Teaching Practice

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2009

Project Leader
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Many staff whose names do not appear in this Report attended the Plenary sessions held as part of this project, their contribution is acknowledged. Thanks are also extended to project members who presented at Plenary sessions. We would also like to acknowledge other RMIT staff that made presentations:

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In addition to project participants, administrative and technical support has been provided by many people from the Learning & Teaching Unit and the Educational Media Group at RMIT.
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Abbreviations

ALTC  Australian Learning & Teaching Council (formerly Carrick Institute for Learning and Teaching in Higher Education)
AQTF  Australian Quality Training Framework
ART  Action Research Team
ARTL  Action Research in Teaching & Learning
BUS  College of Business
CAD  Computer Aided Design
CES  Course Experience Surveys
CEQ  Course Experience Questionnaire
CoP  Community of Practice
CSF  Critical Success factors
DEST  Department of Education, Science and Training
DEEWR  Department of Education, Employment and Workplace Relations (formerly DEST)
DLS  Distributed Learning System (online)
DSC  College of Design & Social Context
DVC(A)  Deputy Vice Chancellor (Academic)
ERA  Excellence in Research for Australia
GTS  Good Teaching Scale
HE  Higher Education
<table>
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<tr>
<td>HERDSA</td>
<td>Higher Education Research and Development Society of Australasia</td>
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<tr>
<td>HoS</td>
<td>Head of School</td>
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<tr>
<td>IT &amp; AV</td>
<td>Information Technology &amp; Audio Visual</td>
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<td>L-EIG</td>
<td>Learning Environment Improvement Group</td>
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<td>L-SAG</td>
<td>Learning Space Advisory Group</td>
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<tr>
<td>L&amp;T</td>
<td>Learning &amp; Teaching</td>
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<td>LTC</td>
<td>Learning &amp; Teaching Committee</td>
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<td>LTIF</td>
<td>Learning &amp; Teaching Innovation Fund</td>
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<td>PAR</td>
<td>Program Annual Review</td>
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<td>Promoting Excellence Initiative</td>
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<td>Project Team</td>
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<td>PVC</td>
<td>Pro-Vice Chancellors</td>
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<td>SET</td>
<td>College of Science, Engineering &amp; Technology</td>
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<tr>
<td>SSCC</td>
<td>Staff Student Consultative Committees</td>
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<tr>
<td>TAFE</td>
<td>Technical &amp; Further Education (see also VET)</td>
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<tr>
<td>TER</td>
<td>Tertiary Entrance Ranking</td>
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<tr>
<td>TQI</td>
<td>Teaching Quality Indicators</td>
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<td>VET</td>
<td>Vocational Education and Training (see also TAFE)</td>
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Executive Summary

The aim of this project was to foster, develop and implement an academic leadership model with a focus on the effective use of student feedback to improve the quality of learning and teaching in order to enhance students’ educational experiences.

The project adopted a Distributed Action Research Model to engage a ‘vertical slice’ of leaders from the multi-levels that exist across the University. This was achieved by the establishment of:

I. three School-based Action Research Teams (ART) (consisting of an ART Leader, the Head of School, Course Co-ordinators of chosen courses and a Facilitator external to the School)

II. a Project Team (consisting of the Deputy Vice Chancellor (Academic) [DVC(A)], the Project Manager and Project Officer, ART Leaders, Heads of Schools and Leaders of Service and Student Support Departments

III. Plenary sessions designed as an Institute-wide Community of Practice to which a vertical slice of the leadership across the university was invited

IV. A Reference Group of internal and external experts

The positive approach adopted by all participants ensured that the action research process did achieve the desired outcomes. In particular, the active sponsorship of the DVC(A) was critical to the development and support of the Change Management process. The DVC(A) attended all Plenary sessions, Project Team and Reference Group meetings. His support for, and advocacy of, the ideas for change that emerged from the ARTs and from the Plenary sessions meant that the ARTs were able to implement the desired changes with the support of infrastructure and service support. This meant that individual academics within the ARTs were encouraged to continue to develop new ideas aimed at enhancing the effectiveness of their learning and teaching practice. The support of the DVC(A) was instrumental in the acceptance of a collaborative Leadership approach by all participants, which he described as top-down policy, bottom-up implementation and middle-out support.
The outcomes of the project are multi-facetted:

First, a **P.A.C.E.D. Distributed Leadership Model** in the use of student feedback to enhance student learning and teaching practice (henceforth termed the P.A.C.E.D Distributed Leadership Model) was developed. This P.A.C.E.D Distributed Leadership Model has 5 leadership elements identified during the project as being essential to enhance student learning experience:

- **Participative Leadership** – in which all stakeholders participate in two-way communication and consultation.
- **Accredited Leadership** – that recognises the need to recognise and reward staff for their contributions to enhanced learning and teaching practice and to provide ongoing professional development support for leadership.
- **Collaborative Leadership** – in which top down policy is implemented from the bottom-up with middle-out support.
- **Engaged Leadership** – through which opportunities to network and share lessons learnt within an agreed pedagogical framework are available.
- **Devolved Leadership** – by which action by all levels and functions of Leaders across the university is congruent with University policy.

The P.A.C.E.D. Distributed Leadership Model provides a framework that is adaptable both across the higher education sector, and to a variety of issues beyond that of the project issue focus of student feedback.

Implementation of the P.A.C.E.D. Distributed Leadership Model assumes a process of change across the university. This led to the second outcome from this project – a Change Management Model that, while recognising the central role of the individual academic in enhancing student learning and teaching practice, acknowledges the need for a holistic multi-level leadership approach across the university. The **R.E.A.L.I.S.E.D. Change Management Model** has 8 elements that relate to the 5 elements of the P.A.C.E.D. Distributed Leadership Model:

- **Recognition** – of individual academic excellence in enhancing student learning and teaching practice through Teaching Excellence Awards and Promotion opportunities.
- **Encouragement** – of the individual academic through the provision of time and financial support to design and develop learning and teaching practice innovations.
- **Acknowledgment** – of the link between university strategic plans and individual academic learning and teaching practice.
- **Leadership** – from each of the multi-levels across the university that is congruent and supportive of a participative and collaborative approach.
Integrated - with student service providers

Systems – responsive support for individual academic learning and teaching practice from IT and AV

Environment – provision of infrastructure that is conducive to an appropriate learning environment in which good teaching and learning practice can be to embedded

Dissemination – provision of the opportunity and encouragement for individual academics to share their innovations in learning and teaching across the university (including across disciplines).

The third outcome of the project was the development of Resources to build leadership capacity to implement the PA.C.E.D Distributed Leadership Model. This includes templates, tables and figures developed during this project to build leadership capacity in student teaching and learning practice. These resources are presented in a Resource Portfolio that accompanies this Report.

In addition to these models and framework, the changes to learning and teaching practice implemented by the ARTs led to significant improvements in student learning and teaching practice. ARTs reported improvements in student formal feedback on Good Teaching Scale through Course Experience Surveys; positive feedback from surveys of students on specific changes; increased active engagement of students in face-to-face feedback sessions and in assessment tasks and positive staff observation of the impact of the students in each class, the type of communication received from students and the impact on student results.

The active engagement of academics in the ARTs did result in an increase in leadership capacity in a number of ways.

First, the ART Leaders developed capabilities in leading ART members through a complex and challenging change process. In two ARTs the Leaders had not held any leadership roles while the third ART Leader had been newly appointed to the position of Director Learning and Teaching in the School. In all three cases, the Leadership role they played in this project enabled them to develop a leadership profile both within the School and across the university.

Second, ART members developed their leadership capability in learning and teaching that led to a number of outcomes including the awarding of several RMIT Learning and Teaching Innovation Grants to ARTs, a Teaching Award for Excellence in Learning and Teaching to an ART member and several published articles (in both Discipline specific and Learning and Teaching publications) by ARTs and individual ART members.

Third, Heads of School developed a greater understanding of the contribution that collaborative teams can potentially make to improvements in student learning and teaching practice. This led to the establishment by the Heads of School in two Schools of a formal Learning and Teaching Committee, headed by either the ART Leader or an ART member. While the third School did have
an existing Learning and Teaching Committee, demonstration of increased understanding of learning and teaching issues by the Head of School was evident in his agreement to cap the maximum size of classes (despite the staffing and timetable implications of this).

Fourth, Leaders of various Service Support areas developed a greater understanding of the leadership role of their departments in providing an overall supportive learning and teaching environment that enhances the student learning and teaching experience. This led to the establishment of a formal Consultative Group to bring together academic leaders and leaders of property services to ensure learning spaces are designed in accord with the prevailing pedagogical direction of the university.

Fifth, leaders from each of the multi-levels of leadership across the university identified their role in enhancing student learning and teaching practice. The attendance of the three Pro-Vice Chancellors (Academic)\(^1\) at various Plenary sessions, their responses to interview questions on their roles, and the support given to changes to learning and teaching resulting from the project are examples of recognition of their contribution.

The effectiveness of this distributed approach is demonstrated also in the adoption of this approach for other projects established by the University since this project. However it is recognised that cultural change of this magnitude requires ongoing commitment to continual change and the embedding of change. To this end a number of actions have either been taken or are being considered. These include:

- The addition of two learning and teaching forums a year to provide a mechanism to monitor and gather feedback on learning space issues experienced by students and staff.
- Extension of the Action Research Approach to leadership capacity building across the University, for example through the dissemination of ART experience and achievements in learning and teaching forums in each College.
- Consideration of how students (as stakeholders) may gain greater ‘voice’ in a more formative manner than the summative approach of end of Semester Course Experience Questionnaires. For example how Staff-Student Consultative Committees may be strengthened.
- Discussion with organisers of the RMIT Leadership Professional Development to include sessions on the P.A.C.E.D Distributed Leadership model.
- Acknowledgment in the RMIT Promotion criteria of the value of learning and teaching and leading in learning and teaching for promotion purposes.
- Extension of the Student Transition Program developed by PVC (Student Services) area to include academic transition issues.

\(^1\) It should be noted there were several changes of PVC(A) over the course of this project.
Plans for the project to have a wider impact on the development of distributed leadership capacity across the higher education sector are currently under discussion. This includes:

- Agreement from lead universities in other ALTC funded projects on Distributed Leadership to formulate a joint proposal for a Priority three Consolidating Leadership Grant to explore synergies between the projects in the thematic issues, theoretical underpinnings and processes and practices that have emerged from these projects.

- Ongoing dissemination activities that include the launch of this Report, the presentation of papers at Conferences and the publication of Journal articles is occurring, with the intent to produce a book of readings with other universities who have trialled a Distributed Leadership approach.
Foreword:
Deputy Vice-Chancellor (Academic)

Two of the fundamental strategic principles that underpin RMITs Academic Plan are the encouragement of bottom-up initiatives from its most valuable asset – its staff - coupled with the promotion of effective top-down policies. It is these strategic principles that underpinned the universities submission for an ALTC funded project into a multi-level leadership approach to enhancing student learning and teaching practice. The Action Research methodology adopted for the project was effective in supporting broad acceptance that all levels of leadership play a vital role in enhancing the student learning experience. The outcomes of the project, both in responsiveness to student feedback and in the promotion of leadership across the university in enhancing the student experience, have produced a significant cultural change across this university. In particular the project was effective in developing our understanding of the interface between teaching practices and the physical environment in which learning occurs.

On behalf of RMIT university I would like to thank the ALTC in their support of the project, particularly Dr Elizabeth McDonald for her participation as a member of the Reference Group in the first year of the project.

I would like to thank all staff who participated in the project, with a special thanks to the external members of the Reference Group. The Reference Group acted as a particularly active group that added valuable insights on the project.
Overview

This Report is presented in two Parts.

Part A presents a ‘macro’ overview of the project:

- Section One and Two outline the Project, its rationale, aims, and objectives.

- Section Three presents the action research process that underpinned the five cycles of change. Each cycle is presented using the Action Research cycle of: Plan, Act, Observe and Reflect.

- Section Four presents the Outcomes and Critical Success Factors of the Project in the form of the P.A.C.E.D. multi-level leadership model and presents the R.E.A.L.I.S.E.D. Change Management Model that emerges from reflection upon these critical success factors.

- Section Five outlines the internal institutional recommendations from the project.

- Section Six presents an approach to embed the Multi-level and Change Management Models developed from this project across the higher education sector through networking with other ALTC projects.

- Section Seven outlines the Dissemination strategy designed for the project findings.

Part B presents the three ART Implementation Case studies detailing how each of the schools developed different approaches to using student feedback to enhance student learning and teaching practice.

- Section Eight, details the College of Business (BUS) ART project that occurred in the School of Economics, Finance and Marketing.

- Section Nine details the College of Design and Social Context (DSC) ART project that occurred in the School of Property, Construction and Project Management.

- Section Ten details the College of Science, Engineering and Technology (SET) ART project that occurred in the School of Mathematics and Geospatial Science.
Part A: Developing a Distributed Leadership Model
1. Section One: Framing Leadership

1.1 Background and Rationale

The project aimed to develop a multi-level leadership approach to the effective use of student feedback to enhance student learning and teaching practice.

The project built on RMIT internal data that showed that teaching large classes, general teaching capabilities and assessment, are the top three areas of concern for learning and teaching at the university. These areas of practice are encompassed in the ‘Good Teaching Scale’ of CEQuery domains and sub-domains devised by Richardson (2003) and the work of Scott, Richardson, Brown and Kabanoff (2005).

1.2 Student Feedback

Introduced in 2005, the RMIT Student Feedback policy is designed to enhance the student experience through an ongoing cyclical process of systematically collecting feedback data from students, analysing feedback, taking action in response to student feedback and communicating action taken back to students (Figure 1). The process introduced to implement this policy is through student feedback in Course Experience Surveys (CES) collected every time a course is delivered.

Figure 1 Cyclical System for Student Feedback
The questions asked in the CES have been developed from the Course Experience Questionnaire (CEQ) managed by Graduate Careers Australia and research into, and consultation with, a range of universities regarding their feedback instruments. They are designed to measure various items related to the student learning experience including:

- Feedback;
- Quality of the teaching and learning environment;
- Learning objectives;
- Clarity of goals;
- Assessment – workload;
- Commitment of staff – pastoral care;
- Learning resources;
- Balance of theory/instruction and practice;
- Course interest;
- Online – computer based material;
- Overall student satisfaction.

The Policy states that student feedback is the responsibility of all staff at RMIT who engage with, and respond to, student feedback and that student feedback will be used to improve the provision of learning resources, facilities, equipment and services through the development of annual improvement plans.

The formal accountability and responsibility for the quality, review, management, and legal requirements of the use of student feedback is devolved within the organisational structure of the university, from Deputy Vice Chancellor (Academic) and Academic Pro-Vice Chancellors to Heads of Schools, Discipline and Program Leaders, and Deans of Academic Development. Directors of Learning and Teaching, Student Services, and Educational Development staff who provide support services.
The RMIT-NTEU Enterprise Agreement states that there is need to establish a consultative process for discussions over student feedback that includes broader issues (such as staff workload, characteristics of the student cohort, the physical environment in which teaching takes place, the structure of the course, the availability of and access by students to learning resources, the method of delivery and the provision of professional development support to the employee).

CES analysis is undertaken by the Student Survey Unit, with detailed responses provided to the Head of School, Program Co-ordinators, Course Coordinators and the individual staff member. These analyses are not provided to Service Providers.

Given the multitude of staff involved with various aspects of the use of student feedback and the lack of clarity on leadership and responsibility of staff involved, the individual academic teacher has tended to be regarded as having central responsibility for improving student feedback. In particular, attention is given to the six questions in the CES combine to create a Good Teaching Scale (GTS). The GTS measures students’ perceptions of teaching standards and focuses on individual teachers’ contribution to the students learning experience through the: provision, and amount of, assessment feedback, ability to motivate students, attention given to the problems students face, skills in explaining concepts, the effort put into making the course interesting.

In addition to the CES the university has a requirement that each Program has an established Staff-Student Consultative Committee (SSCC) that meets several times a Semester. However this Committee has no formal reporting function (apart from the need for mention of meetings in the Program Annual Reports), there are no formal means by which students are elected to represent the views of all students, and there are no incentives for students to attend meetings. This has resulted in student attendance at SSCC being minimal. The outcome is that student feedback on issues related to learning and teaching practice is almost exclusively reliant on the CES.
In addition, the PVC (Student Services) area undertakes periodic surveys of students on institution-wide issues and does establish programs in response to student feedback, but there is no formal linkage between these surveys and the CES.

RMIT University has performed well on some student outcomes indicators for the Learning and Teaching Performance fund such as graduate employment. However, it has not performed well on student outcomes indicators for good teaching, generic skills and overall satisfaction, based on the CEQ. Performance on these scales has improved marginally within RMIT but has not improved in past years in relation to other universities (DEST 2000-2007).

This intersection of the need for the university to improve student feedback and to provide greater clarity on the leadership and responsibility of staff involved across the university set the purpose for this project.

### 1.3 Context

The Project proposal identified that giving and receiving student feedback is an essential element of the learning and teaching process. DEST has recognised the importance of student feedback for the quality of learning through investment in strategies to collect and analyse student feedback data in the course experience, postgraduate research and student satisfaction in Course Experience Questionnaire (CEQ). According to Stevens (2005 p87) ‘managing student feedback and managing the actions taken in response to this feedback are the most important areas for assuring quality in learning and teaching’. This currently is badly managed at RMIT.

The effective use of student feedback is uneven. There is a lack of documented evidence demonstrating how the challenges of using feedback are being met in different organisational units in universities and there is little evidence that current ways of using student feedback are making any contribution to improving the overall quality of learning and teaching (Kember, Leung and Kwan, 2002).

Given that the challenges and opportunities identified above for more effective use of student feedback are not unique to RMIT University, the outcomes of the project are considered to be of value to other educational institutions. A sustainable approach to building leadership and the effective use of student feedback that may be scaled up or adapted to different contexts is of national significance and can contribute to improvements in the quality of learning and teaching. Other universities will be interested in improving good teaching indices to enhance their teaching performance. An example of this interest is the substantial work that has been done by a consortium of universities to code and use qualitative comments from CEQ, (DEST Evaluation and Investigation Project, 2005). Advancement in these areas of practice will result in improvement in the quality of teaching practice, the quality of programs and student learning outcomes and experiences.
A critical learning and teaching challenge is to develop more effective strategies to ensure that student feedback leads to and informs approaches to improving student learning outcomes and experiences. Creating a culture that supports a broad based and informed approach to the use of student feedback requires well developed leadership at all levels of the institution (Lueddeke 2003).

It is within this twin context of the internal university need to improve the student learning experience and thus improve student feedback and the exploration of a sector wide need for clarification of leadership and responsibility for student feedback that this project was formulated. The project was funded under the Australian Learning and Teaching Council (ALTC formerly the Carrick Institute) Leadership Grants Scheme Program (Anderson & Johnson 2006). This scheme was established to support research into leadership in learning and teaching in Higher Education that adopts a systemic, multi-faceted and coherent approach, utilises policy instruments, and is guided by the principles of critical action learning (Marshall 2006). The project adopted the Distributed model of leadership that the ALTC Leadership Forum had concluded is needed in Higher Education (ALTC Colloquium 2006), with the aim of identifying whether, and how, this model applies in regard to student feedback.

1.4 Project Aims

The aims of the project cover a broad spectrum with an emphasis on fostering and developing leadership and leadership capacity in the effective use of student feedback through the identification of critical success factors and barriers to effective leadership. Included in this it was aimed to:

- Foster leadership roles and responsibilities that will effectively inform academic work plans and the teaching and learning strategy
- Develop leadership capacity at various levels of staff with different roles, responsibilities and functions in the effective use of student feedback to improve assessment for learning, teaching large classes and teaching capabilities
- Evaluate leadership capacity building approaches and practice
- Critically analyse success factors for and barriers to effective leadership practices and policies
- Implement a leadership culture that enables informed approaches to the use of student feedback, development of personal perspectives and organisational change
- Integrate different leadership perspectives within academic practice to help frame the use of student feedback as an important element of academic leadership work
- Develop resources to support academic leadership with a focus on the use of student feedback
- Disseminate project results and resource material across the higher educational sector nationally and internationally

1.5 Intended Project Outcomes

The intended project outcomes included the design of a distributed leadership framework in the use of student feedback to improve teaching and learning that would include multi-level approaches and a plan, strategies and resources to effect change management. Specifically, the intended outcomes were:

- A distributed leadership framework in the use of student feedback to improve teaching and learning including:
  - increased capabilities to provide academic leadership in using student feedback to enhance learning and teaching;
  - case studies of leadership qualities developed and required by various roles and responsibilities such as PVCs, Heads of Schools, Program Leaders and program team;
  - critical analysis of success factors and barriers to effective leadership development;
  - approaches to building leadership capacity in a sustainable way from ‘ground up’ instead of just ‘top down’.

- Multi-level approaches and strategies to effect change management including:
  - exemplars and case studies in cultural change including institutional and local approaches to fostering and embedding leadership practices and policies;
  - leadership in curricula improvement strategies for assessment of learning practices, teaching large classes and teaching capabilities;
  - strategies for effectively informing university’s academic plan and learning and teaching strategy.
- Resources:
  - leadership capacity building
  - learning and teaching professional development materials
  - project management resources
  - guidelines and approaches to action group and community of practice facilitation
  - action learning teams’ action, implantation and evaluation project plans
  - Leadership Project action and implementation plans for project management; dissemination; evaluation; reporting and benchmarking across the higher education sector nationally and internationally.
2. Section Two: Engaging Leadership

2.1 Approach

The project used a collaborative, broad-based participatory approach to leadership capacity building across the University.

This approach built on existing RMIT experience in providing competitive small grants to staff using an action research approach to enhance the quality of teaching and learning through Action Research in Teaching and Learning (ARTLs). The scheme began as an initiative that would strengthen a shared culture of reflective and scholarly practice in science and technology teaching by offering professional development that recognises disciplinary cultures and ways of knowing, and is situated in the everyday work of teaching. Projects involved a number of staff and students working together in different courses and programs of study to experiment with learning and teaching innovations (SET Portfolio\(^2\), Gray & Radloff).

The Action Research methodology adopted for the project used a participatory and inquiry-based approach of reflexive inquiry. This provided the opportunity to implement and research change simultaneously using the action-research cycle as shown in Figure 3. Action based on evaluation of student feedback aimed at improving the student experience would be planned and implemented. This would be followed by observation of the effects of the changes. Reflection on the implications of this action for leadership in student feedback was then possible. The continuous nature of action research accords with the plan, act, evaluate and improve process of quality improvement.

Figure 3 Action Research Model

Note – in December 2008 the 3 Academic Portfolios were renamed Colleges, accordingly the term College has been used throughout the Report.
2.2 Project Design

The project aimed to use this action-research model to engage multi-levels of leaders in activities aimed at building trust, deepening relationships, and altering viewpoints as shown in Figure 4, in order to build leadership capacity through action rather than as a separate professional development activity. That is, active participation in the process of change to respond to student feedback would enable participants to become more skilled in the work of leadership which involves collaboration, dialogue, inquiry, facilitation and conflict resolution skills (Lambert 2005). The project was designed as a reciprocal learning process that would enable individuals working in teams to work collaboratively to solve problems by creating shared meaning, providing a focus for teaching improvement and development, and creating a momentum for change.

The approach involved three School level Action Research Teams (ARTs), a Project Team to assist in the planning, scoping and managing of the project, a Community of Practice (in the form of Open Plenaries) of representatives from a vertical slice across the University, and a Reference Group.

Ethics approval was obtained at the commencement of the project that enabled information to be collected for research purposes from each of the participant groups in the forms of Minutes of Meetings, Notes of Plenary sessions, ART Group Reports and Reports of Project Manager to the Project Team, the Reference Group and to ALTC.

Figure 4 Multi-Level Action Research Distributed Leadership Framework
2.3 Project Plan

Project Sponsorship was shared between the Deputy Vice Chancellor (Academic) [DVC(A)] and the Pro-Vice Chancellor (Student Services) [PVC(SS)], assisted by a Reference Group of experts. The focus of activities for this level of leadership was to promote project involvement and leadership in capacity building among the Senior Executive in RMIT and to other Universities in the Higher Education sector, and to oversee the progress of the project and advise on the design, development and evaluation of issues of concern.

Project leadership, management and governance was undertaken by the DVC(A), the Director Learning and Teaching and the Project Officer assisted by a Project Team. The Project Team consisted of representatives of university leaders with responsibility for improvements in learning and teaching (Heads of School, ART Leaders and Facilitators, Directors of Academic Development Units).

Academics responsible for course co-ordination, assisted by Project Facilitators with expertise in learning and teaching development and participatory and inquiry-based action research and reflexive techniques, formed the School-based Action Research Teams (ARTs). The ARTs were established to create a shared sense of purpose between members in using student feedback to improve large class teaching in common core courses, service teaching large classes and improving teaching capabilities.

Activities in which ART members engaged included the investigation of student feedback to further examine educational problems and emerging issues in different contexts and delivery. This included:

- benchmarking and engaging in research of possible new approaches to teaching improvement.
- the development, implementation and evaluation of strategies to provide evidence of improvement in student learning outcomes and satisfaction through improved feedback.

These would then be used as case studies and exemplars in leadership capacity building in responding to student feedback across the university.

ARTs were assisted by Facilitators with expertise in learning and teaching as a means to build internal capability of the schools and teams, to assist in the contextualisation of activity taken by the ARTs into the overall leadership project objectives and to assist the complementarity between ART activities and the RMIT University’s strategic and national priorities.

The ARTs were to engage in practice based action learning projects to enable them to set priorities in alignment with institutional priorities, thus providing the integration of ‘bottom–up’ and ‘top–down’ leadership development process.
Plenary sessions were established as a formal mechanism to encourage a ‘Community of Practice’ across a vertical slice of the RMIT community. Plenary sessions were to play a central role in all aspects of the project in that they would:

- Assist in the planning and scoping of the project.
- Contribute to the identification of professional development needs concerning leadership in the use of student feedback.
- Provide the opportunity to share experiences and ideas between the different action research teams and across a “vertical slice” of the RMIT University community.
- Provide opportunities to reflect on and further develop the leadership conversation and practices.
- Encourage different levels of leadership to share and reflect on issues specific to their roles and responsibilities and the ways they may effectively contribute to leadership in learning and teaching around student feedback.
- Build leadership capacity through reflection and professional development.
- Analyse sustainable models of institutional leadership emerging from practice.
- Assess the application of the leadership model in improving learning and teaching strategy.
- Evaluate individual projects.
- Disseminate case studies across the University.

Figure 5 Distributed Action Research Model
2.4 Project Operation

A recent report of the ALTC funded Leadership projects prepared for the ALTC by Emeritus Professor Lesley Parker (2008) detailed five factors that appear to facilitate successful outcomes and build sustainability in conducting successful projects.

- Stakeholder buy-in.
- Project management.
- Theoretical framework.
- Role of the evaluator.
- The role of previous experience.

This section presents the experience of the project against these factors.

2.4.1 Stakeholder Buy-in

A multi-level approach to targeting improvements in response to student feedback ensured that there was significant stakeholder buy-in at participant and institutional level:

- The project was sponsored and supported by the DVC (Academic) in both words and actions. The DVC(A) attended all Project team meetings and Plenary sessions and chaired the Reference Group. His open and public support for the project as a priority for the university, was instrumental in attracting multi-level leadership support.

- Leaders and members of each ART commented on the active participation and public support of their respective Head of Schools. The involvement of the Heads of School, in encouraging and supporting individual academics in the planning and testing of learning and teaching initiatives for improvement resulted in recognition of the importance of ARTs activities across each of the Schools in which they were situated.

- The involvement of senior leaders from each of the Service providers – Survey Centre, Property Services and IT & AV Services – resulted in a participative team approach to the provision of broader support in addition to that of ‘line managers’. The opportunity for active engagement in analysing and trialing solutions to problems ensured significant ‘buy-in’ by Service providers.
– The Project Reference Group played an active and invaluable role from which feedback on the project was obtained on a regular basis as the project progressed through action research cycles. Reference group members were particularly helpful in identifying the sustainability and applicability of reflection on, and outcomes from, the project across RMIT and the higher education sector. This included suggestions of how the Dissemination process could be designed to reach a broad audience. The unique nature of the Reference group engagement in the project was demonstrated by the attendance of external members at a number of Plenary sessions and the assistance provided by one member in the conceptualisation of the Evaluation process.

– The involvement of students was particularly important in the ARTs where focus groups were used to expand on student feedback recorded in the CES. In addition the involvement of students in a Plenary session enabled the viewpoint of students to be discussed across a vertical slice of the university leadership.

2.4.2 Project Management

2.4.2.1 Role of the Manager and Project Officer

A key to the success of the project was effective project management. A Project Officer was employed (0.5) with the role of ensuring that strategic planning and effective implementation of all aspects of the project took place. This also provided a single point of contact for queries from participants involved in the project. Implementation was guided in principle by a phased action implementation plan which was supported by a yearly scheduled plan of meetings and project events.

2.4.2.2 Stewardship of the Project

Strategic planning of the project was the joint responsibility of the Project Leader DVC (Academic), the Project Manager (Director of Learning & Teaching Unit) and the Project Officer.

Regular meetings of the ART Facilitators in the first year of the project ensured that assistance for the ART Teams in identifying the broader pedagogical and leadership issues was identified. The inclusion of ART Leaders in these meetings from the second half of the first year of the project improved the communication between ARTs.

The multi-level aspect of the Project Team provided a unique integrating discussion space and became an integral part of the action research approach that underpinned the project.
2.4.2.3 Managing Workshops

This project utilised five Plenary sessions as a Community of Practice for the project. Plenary sessions were scoped and planned in consultation with the Project Management Team, the Project Team, ART Leaders and Facilitators, and input from the Project Reference group.

2.4.2.4 Relationship Management

The Action Research nature of the project, as well as the distributed focus, meant that relationship management between the various participants was crucial to ensure ongoing commitment to the project over the two years of its activity. The active engagement of all participants at every level of the project resulted in a positive approach, and positive outcomes, for relationship management.

2.4.2.5 Documentation / Information Management (including budget tracking)

Regular reports were made by the Project Leader to the ALTC in accordance with the requirements of the leadership grant. Annual reports included a summary of budget tracking. Positive feedback was received regarding the progress reported in each Report. This was helpful in assisting the Project Management Team to confirm that the project was proceeding according to plan.

Regular written reports were also provided by the Project Manager to the Project Reference Group during the first year of the project. These were changed to verbal reports in the second year of the project as it was found that circulation of the Project Reports to the ALTC was sufficient to inform the Reference group of progress. This enabled more open and fruitful discussion to occur during Reference Group meetings.

The fluid nature of action research (especially in a university environment governed by formal institutionalised, hierarchical leadership that relies on targeted outcomes governed by structures, rules and regulations), is challenging. It required a systematic, concise and clear approach to documentation and communication. The excellent documentation of all Project events and meetings of Project Team by the Project Officer was a key factor in assisting participants to accept the challenge of an action research approach that was established to explore a more distributed, less hierarchical, approach to leadership. Formative documentation of Reference Group, Facilitators & ART Leaders meetings was also extremely helpful in providing a detailed record of the cycles of change as the project evolved.

A website was developed to assist in project documentation. This was not as effective in disseminating information across the university as had been hoped, with the face-to-face Plenary sessions being more useful.
The publication of articles related to the project in the University on-line teaching & learning journal also required a more structured approach to ensure that it is effective as a means of disseminating information.

Each ART documented its own progress according to its needs, with formal reports on progress presented regularly to the Project Team and at Plenary Sessions. ARTs also disseminated information on their progress within their own Colleges and Schools.

2.4.3 Theoretical Framework

Successful projects need a strong theoretical framework – this has been documented in Section Three (3.1.5).

2.4.4 Role of the Evaluator

As this was an Action Research project the ALTC agreed that it was more appropriate to undertake an evaluation of the project at its completion. That process commenced in March 2009 with the appointment of an independent evaluator (see Evaluators report).

The evaluation visit of Emeritus Professor Lesley Parker and her review of this project included as part of the Evaluation Report to the ALTC on all ATLC Leadership projects (2008) was useful in assisting the project participants to reflect on the action taken and progress made.

2.4.5 Role of Previous Experience

While this was the first ALTC funded project in which RMIT was a lead institution, the experience of the Project Manager in several ALTC funded projects in which RMIT is a partner meant that experience of leadership emerging from other projects was able to inform this project. In addition as the Project Manager was the Director of Learning and Teaching Development who had current teaching experience and researching on Action Research Methodology this ensured that the project attracted support from across the university.

The appointment of the DVC (Academic) as Project Leader responsible for the development and implementation of the University Academic and Learning and Teaching Plans provided the project with the breadth of knowledge of the links between policy design and practical implementation required to support a project of this nature.

The appointment of a Project Officer with experience in learning and teaching and curriculum development and management provided the project with administrative and management assistance informed by an understanding of pedagogical issues.
Part A: Developing a Distributed Leadership Model - Section 3: Building Leadership Capacity

3. Section Three: Building Leadership Capacity

The first outcome of this project is the P.A.C.E.D. Distributed Leadership Model to Enhance Student Learning and Teaching practice, as illustrated in Figure 6. This section describes the action research process underpinning this project that resulted in the gradual evolution of this model through five cycles of plan, act, observe and reflect. The flexibility associated with these cycles enabled adjustments to be made between cycles in response to issues observed and reflected upon during previous cycles. This resulted in a higher quality outcome than allowing the initial change to proceed unchanged and assessed only retrospectively. This can be likened to the advantages of formative assessment of students so that students can be advised on how to improve their learning rather than a sole reliance on summative assessment which does not enable students to observe, reflect and make adjustments to their learning techniques.

This process resulted in the identification of five leadership elements required for a successful leadership approach to enhancing student learning and teaching practice through the use of student feedback.

- Participative Leadership – in which all stakeholders participate in two-way communication and consultation
- Accredited Leadership – that recognises the need to recognise and reward staff for their contributions to enhanced learning and teaching practice and to provide ongoing professional development support for leadership
- Collaborative Leadership – in which top down policy is implemented from the bottom-up with middle-out support
- Engaged Leadership – through which opportunities to network and share lessons learnt within an agreed pedagogical framework are available
- Devolved Leadership – by which action by all levels and functions of Leaders across the university is congruent with university policy. The Report returns to this Model at the end of this section.
The section is structured to present the action research cycles from four ‘Pause points’ identified by Plenary sessions that operated as a Community of Practice (CoP) around the issue of enhancing student feedback in learning and teaching practice. Accordingly this section of the report is presented as five reflective cycles associated with the five plenary sessions held in April, August and November 2007 and May and November 2008. While, as is the nature of action research, these reflective cycles overlap to some extent, they provide a useful approach to reflect upon the emerging multi-level (distributed) model of leadership capacity building in student feedback.

Also presented in this section is the R.E.A.L.I.S.E.D. Change Management Model that was developed to support the Implementation of the P.A.C.E.D. Distributed Leadership Model (Figure 7). This Change Management Model, while recognising the central role of the individual academic in enhancing student learning and teaching practice, acknowledges the need for a holistic multi-level leadership approach across the university. Accordingly, the R.E.A.L.I.S.E.D. Change Management Model has 8 sections that relate to the 5 elements of the P.A.C.E.D. Distributed leadership model:

- **Recognition** – of individual academic excellence through awards and Promotion opportunities
- **Encouragement** – of individual academic through the provision of time and financial support to design and develop learning and teaching practice innovations
Part A: Developing a Distributed Leadership Model - Secton 3: Building Leadership Capacity

- **Acknowledgment** – of the link between university strategic plans and individual academic learning and teaching practice enhancing student learning and teaching practice through Teaching Excellence Awards

- **Leadership** – from each of the multi-levels across the university that is congruent and supportive of a participative and collaborative approach

- **Integrated** – with student service providers

- **Systems** – responsive support for individual academic learning and teaching practice from IT and AV

- **Environment** – provision of infrastructure that is conducive to an appropriate learning environment in which good teaching and learning practice can be to embedded

- **Dissemination** – provision of the opportunity and encouragement for individual academics to share their innovations in learning and teaching across the university (including across disciplines).

Figure 7 R.E.A.L.I.S.E.D Change Management Model to Enhance Student Learning and Teaching Practice
3.1 Cycle One: Devolved Leadership

3.1.1 Introduction

The first action research cycle involved the establishment of the action research project aimed at building leadership capacity through a devolved process. This commenced with the establishment of the various teams and groups that would represent the understanding of the various multi-level leadership of their respective roles in enhancing student learning and teaching practice to improve student feedback. Table 1 presents a summary of the action research process, identified as Devolved Leadership, that occurred in this first cycle.

Table 1 Action Research Cycle One: Devolved Leadership

<table>
<thead>
<tr>
<th>CYCLE ONE</th>
<th>DEVOLVED</th>
<th>LEADERSHIP</th>
<th>Formal leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLAN</td>
<td>ACT</td>
<td>OBSERVE</td>
<td>REFLECT</td>
</tr>
<tr>
<td>Senior Executive Support for Project</td>
<td>Establish DVC(A) as member of Project team, and Chair of Reference Group</td>
<td>Importance of linking Institutional strategy to project focus</td>
<td>DVC(A) as Sponsor demonstrates senior executive endorsement</td>
</tr>
<tr>
<td>Confirm multi-level leadership support project</td>
<td>Establish membership of teams and groups as university-wide project</td>
<td>HoS Leadership congruence - student feedback used for L&amp;T quality improvement performance appraisal Include multi-discipline leaders</td>
<td></td>
</tr>
<tr>
<td>Confirm leadership approach</td>
<td>Set up Action Research Teams (ARTs) and develop criteria for teams’ project proposals, evaluation and criteria for selection of members.</td>
<td>Use of CES Infrastructure and systems support needs Student as leaders of own learning Discipline-specific influence on ART activity</td>
<td>Theoretical model of leadership model identified</td>
</tr>
<tr>
<td>Select action research team facilitators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop and sign off individual team action plans</td>
<td>Data to be systematic, congruent and sufficiently dis-aggregated</td>
<td>Recognise that responsibility for improving student feedback can lie outside the domain of individual teacher</td>
<td></td>
</tr>
<tr>
<td>Facilitate reflection and analysis of leadership, teamwork, and student feedback</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confirm Community of Practice</td>
<td>Plenary 1 Establish the value of Multi-Level leadership in student feedback</td>
<td>Provided opportunity for consideration of various contributions to student feedback across university</td>
<td>Confirmed opportunity to reflect emerging issues for leadership</td>
</tr>
</tbody>
</table>
3.1.2 Plan

The involvement of all levels of leaders across the university in the preparation of the project proposal demonstrated that the senior leadership of the university is committed to a distributed leadership approach to enhance student learning and teaching practice as identified in student feedback.

The assumption of leadership used to underpin the project was built on a definition of leadership capacity as “broad based, skilful participation in the work of leadership that leads to lasting institutional improvement” (Lambert 1998, 2005). This definition was informed by contemporary distributed forms of leadership concerned with empowering others to lead (Harris 2004; Lambert 2003). Distributed forms of leadership are less concerned with individual capabilities and talents and more on creating collective responsibility for leadership action and activity, that recognises the importance of ‘reciprocal learning processes that lead to shared purposes’ (Harris and Lambert 2003 p.7).

In linking distributed leadership to the significant issue of student feedback the project encompassed an issue that is common to discipline related, cross-disciplinary and organisational levels of the institution.

The approach adopted for the project was framed using concepts of transformational change incorporating the work of Callon (1986) and Latour (1986). It was based on an understanding of leadership as an outcome of practices that enables others to make sense of desired directions in their own terms and to incorporate them into their preferred patterns of behaviours, rather than as a personal quality of “leaders” (Callon 1986; Latour 1986). It also planned to build on a ‘translation model’ of leadership that acknowledges leadership only where the ideas of the leader are taken up and embedded in the practise of others. This model is in contrast to the ‘diffusion model of leadership’ that assumes that leadership always flows from the top of the organisation.
At the first meeting of the Reference Group the Project Manager outlined the key concepts that underpin the project as:

Leadership - viewed as the intersection of individual capability with broader University support and management/accountability systems and purposes and how we understand these rather than simply the capacity of individuals.

Multidisciplinary - defined as the need to create institutional conditions that will create the opportunities for multi-level leadership capacity building to occur.

Integration - between personal and organisational levels of activity.

In summary, it is evident that the senior leadership of the university was committed to a more devolved approach to leadership in enhancing student learning and teaching practice through the use of student feedback. Further evidence of this commitment occurred in action taken to link the project to the University strategic and academic directions as discussed below.

3.1.3 Act

Initial action was taken by senior formal leadership between August 2006 and April 2007. This included identifying the relationship between the Project and RMIT Strategy, Plans and Policies and formally establishing the multi-level leadership teams for this project.

In his opening remarks to the initial meetings of the Project Team and the first Plenary session the DVC(A) identified the close links between the Distributed Leadership project and RMIT’s commitment to multi-level leadership approaches in the RMIT Strategic Plan (RMIT 2010, Designing the Future), the Academic Plan (2006-2010) and the RMIT Student Feedback Policy (2005). These were later identified in detail as:

a. RMIT Strategic Plan 2010

Priority 6 of RMIT’s Strategic Plan identifies the commitment of the university to developing staff leadership capacity with the aim of being able to:

Attract develop, reward and retain staff who will embrace the future with energy and creativity and who are focused on the needs of our students and our partners.
This is to be achieved by developing staff with both leadership and management skills through action to:

1. Develop and promote a leadership culture which values responsiveness, engagement, vision and knowledge, and which strengthens accountability across RMIT.

2. Improve the management and workforce planning capability of RMIT leaders.

Priority 5 of the RMIT Strategic plan states that RMIT is committed to:

Create an experience for students which is stimulating and satisfying and which celebrates diversity.

This is to be achieved by taking action to:

Improve communication with students and provide opportunities for students to engage with each other and provide feedback. We will ensure that feedback is used to improve the student experience and its effectiveness conveyed to students.

**RMIT Academic Plan 2006-2010** states that the university is committed to a more distributed, collaborative, leadership approach in which there is a greater sharing of ideas and new opportunities across the university:

*RMIT can enhance its performance across a range of academic areas by pulling together, by sharing its resources and its achievements more effectively than it currently does.*

**b. The RMIT Academic Plan 2006-2010**

The Strategic Principles outlined in the Academic Plan include:

1. Flexibility in recognising the importance of RMIT staff in assisting to maximise its responsiveness by investing in new ideas and new opportunities as they arise.

2. Promotion of effective Top-Down Policies.

3. Encouragement of Bottom-Up Initiatives.

4. Collaboration across the university in pursuit of common objectives provides the underpinning for the first three principles. The plan states:

   *No-one knows the potential for RMIT’s fields of endeavour like those who labour in them. It is to them that management must look for solutions …..it is the combination of bottom-up initiatives guided by strong top down policy that provides us with our best chance of success. Much excellent academic work occurs within Colleges, Schools and Programs, but is not well co-ordinated or communicated across the institution.*
One of its priority areas identified in the Academic Plan 2006-2010 is the need to:

*improve the student experience, particularly in regard to the quality of teaching.*

The Plan recognises the need to listen to what students are telling us, especially in light of the fact that (using the Good Teaching Scale of the Course Experience Questionnaire), while student satisfaction with teaching varies across programs and disciplines, it is generally low. The areas identified as requiring improvement are:

- the use of on-line technologies;
- the quality of feedback provided to students;
- the quality of service teaching and teaching in large classes;
- student access to teaching staff;
- the need for more formative and student-centered assessment practices;
- the quality of facilities that support teaching and student life.

Thus both the Strategic Plan 2010 and the Academic Plan (2006-2010) support and expand the University commitment to the RMIT Student Feedback Policy (2005) that has the objectives of:

- Enhancing the student experience through the systematic collection and analysis of student feedback as a basis for improvement activities.
- Recognising and sustaining good practice by providing data to assist staff in improving professional practice and the scholarship of teaching and to inform the development of processes which recognise and reward good teaching.
- Enhancing the student experience by providing students with the opportunity to actively participate in the continual improvement of their program and course via a range of feedback methods.
- Ensuring the provision of information to students regarding the purpose and outcomes of student feedback collected over time, including action taken to address concerns.

Action taken to implement these strategies included the establishment of a Learning and Teaching Innovation Fund (LTIF). As the project developed, links between Academic Plan and the project were strengthened through the funding of proposals for change to learning and teaching practice that had arisen from within the project.

Paralleling the identification of the links between this project and the RMIT’s strategic direction, action was undertaken to establish the multi-level Leadership project approach. The project was designed to enable formal and informal leadership
capacity building that links educational and leadership principles and practices. Through this it was hoped that actively engaging leaders (both formal and informal) in leadership development could transform how leadership is conceptualised and provide powerful ways of enabling leaders to re-think both their leadership and their learning and teaching practices. It was hoped that this in turn would enable the rethinking and systemic adoption of student feedback as an integrated aspect of leadership work in improving learning and teaching. To ensure the project met the RMIT research ethics requirements a Research Ethics proposal was submitted and received RMIT Research Committee approval.

i) Project Team

Implementation of the project approach commenced with the establishment of a Project Team consisting of the DVC(A), the Director Learning and Teaching Development, 4 Heads of School, an Academic College Dean of Academic Development, 3 ART Leaders and 3 Facilitators and a Project Officer appointed. It was agreed that the Project Team would meet monthly in this initial phase. The role of the Project Team was identified as principally to assist the Project Manager to plan and scope project details and to manage the activities of project stakeholders.

One of the initial meetings of the Project Team (December 2006) considered and endorsed a theoretical position presented by the Project Manager concerning the development of distributed leadership for learning and teaching.

ii) The ARTs

By December, with the encouragement of the DVC(A) via a letter to Heads of School to nominate teams, three ARTs and their facilitators had been appointed, one from each academic College. The ARTs covered three broad disciplinary areas that had targeted specific courses with low levels of satisfaction for improvement.

– School of Mathematical and Geospatial Sciences, College of Science Engineering and Technology (SET).
  Two courses in Mathematics are taught as ‘service’ course across a broad range of Programs, each with 220 students from mixed disciplines. The issue chosen was service teaching large classes.

The ART was assisted by a Facilitator from the University Learning and Teaching Development Unit as there was no School-based Learning and Teaching expertise.

– School of Property, Construction and Project Management, College of Design and Social Context (DSC).
  Two courses were chosen, one a final year course in Construction Management with 85 students and the other a first year course in Computer Aided Drafting with 212 students. The issue chosen was teaching capabilities in course delivery, including how teaching capabilities were affected by the learning environment.
The ART was assisted by two Facilitators from the DSC College Office Academic Development Unit as there was no School-based Learning and Teaching expertise within the School. As the project evolved and less external assistance was needed, Facilitator support was reduced to one person.

- **School of Economics, Finance and Marketing, College of Business (Bus).**
  Four courses were chosen from core first year courses in Business Statistics, Marketing Principles, Macroeconomics, Prices and Markets. These courses are common to all of the four undergraduate Business degrees with a total of 1000-1500 students (onshore) per year in lecture cohorts. The issue chosen was courses with large enrolments.

The ART was assisted by a Facilitator from the central Learning and Teaching Development Unit and also had the School Learning and Teaching Director as the ART Leader.

It was agreed that membership of the ARTs would include interested staff, teaching and learning experts, expert facilitators and support staff as shown in Figure 8.

![Figure 8 ART Membership](image)

The ARTs were supported by small incentive grants to assist their activities. These grants were administered through the Project Manager and allocated when ARTs had achieved key milestones. This meant that ARTs would retain ownership of their contribution to the project activities.

ART members later identified this financial resource provision as an important factor in their active engagement in the project and the successful identification and trial of change innovation. It provided the opportunity for ART members to obtain some relief from teaching and or marking or provided administrative assistance to ART members.

The first report from the ARTs to the Project Team occurred in February 2007 with initial progress reported to the March Project Team meeting.
The School of Mathematical and Geospatial Sciences ART had focused on analysing detailed student feedback data, both quantitative and qualitative. They identified a limitation in the data collection in that the data for large classes is presented in the aggregate with information supplied in a summarised spreadsheet. This means that individual teachers cannot be identified. The ART requested members in the Survey Centre to provide more disaggregated data analysis to address this limitation.

Once this data was analysed, members of the ART were encouraged to share their feedback and individual teaching techniques. In addition, a literature review was undertaken to identify examples of external excellence in learning and teaching practice. The literature review identified a tutor training and support process established in the Maths Access Centre at QUT, that was used as an effective tutor support system for large classes with a positive impact on student feedback. The ART members decided to find out more about this system.

The School of Property, Construction and Project Management ART identified that a key threshold issue that needed to be addressed before staff could really focus on student learning was facilities offered and infrastructure, particularly in large classes. This (systems) issue was identified as best addressed from a joint perspective, accordingly University Facilities and IT representatives were invited to become members of the ART.

The School of Economics, Finance and Marketing ART planned to analyse the two previous years of data on student feedback in large classes. Initial steps had involved attempts to capture a picture of the data available and to identify issues that arose from this process in order to determine the ART project focus. Course Leaders had broken CES data into streams. Past initiatives were being documented to develop a benchmark of previous practice.

iii) The Reference Group

A Reference Group of internal and external experts was established in March 2007 to oversee progress on the project, advise on design, development and evaluation issues and discuss progress. From the first meeting the Reference Group became an active part of the project, with members offering their expertise in various elements of the project (such as developing the evaluation framework) and attending Plenary sessions. A two-way dialogue was established for Reference Group meetings that had a demonstrable impact on the progress of the project. Later discussion on how the Reference group could assist development of a dissemination strategy and the participation of the wider community resulted in suggestions of how individual reference group members could link the project to their professional networks.
iv) The First Plenary

The first scheduled plenary was held on April 24th 2007. The aims of the Plenary were:

- to gather data and information as part of the research process;
- to provide an opportunity to explore the key concepts of leadership in the use of student feedback amongst the core project participants;
- to discuss the progress of the projects and to consider issues arising in order to facilitate future planning.

Invited to the Plenary were all members of ARTs, Project Team and the Reference Group plus all PVCs (Academic), Heads of School and Program Leaders. This was done to provide the opportunity to extend detailed understanding of the project across key groups and to develop connections that are often missing or difficult to achieve, in the normal practice of University life. It was also hoped that ‘traction’ would be developed on the project.

Participants worked in small groups of Senior Leaders, Heads of Schools, Program Leaders, Academic Staff, Support Staff, to consider three key questions:

- In reference to your position at the University, what do you think are the responsibilities of your role in ensuring the effective use of student feedback?
- Identify key activities that you use to do this?
- Identify any major obstacles in this process?

3.1.4 Observe

This first cycle began the process of interaction between formal and informal leaders across the university with university strategy, plans and policies. This was aimed at improving the student experience being implemented by various levels of leadership.

At the formal level, the most obvious evidence of senior level support was action by the DVC(A) in chairing the Plenary and the Reference Group and becoming an active member of the Project Team.

At the informal level the action by the ARTs in identifying elements in student feedback that required action was evidence of the active commitment of academic teachers to accepting a leadership role in student feedback. Each ART developed a process that engaged members in the identification of common student concerns and then the planning of changes related to these. While, on the one hand, the focus on analysing student feedback
may be seen as academics ‘following’ student needs, on the other hand, it provided a solid base upon which ART members could explore ways in which they may lead improvement in the student learning experience. The initial attention of ART members was more focussed on the need for infrastructure and systems improvement rather than improvements to teaching practice such as:

1. the support of a consistent systems approach to enable data on student feedback to be compared. This requires data to be disaggregated sufficiently to provide useful feedback. For example, in the SET service course data on student feedback from large classes with a mix of students from different disciplines, needed to be disaggregated into student-discipline groupings.

2. the need to encourage students (especially first year students) to accept responsibility for developing leadership in their own learning.

3. the need to maintain a balance in the School between financial returns (increase with large classes) and resources available for quality learning and teaching.

An interesting observation made by the Facilitators was the approach taken by the members of each ART members that followed their disciplinary expertise. The Maths and Geospatial ART members commenced their planning phase by using their mathematical skills to analyse the CES data, the Business ART sought to establish a Benchmarking process typical of Business, while the Property and Construction ART members used their construction expertise to focus on teaching spaces. As will be demonstrated later, the issue of disciplinary influence on leadership behaviour and approach in responding to student feedback became important again in Cycle 3 as a challenge for disseminating ideas for improving student feedback between disciplines became evident.

An observation made by the ARTs was the need to ensure that student feedback is collected in an appropriate form and in a manner that does not lead to students feeling they are being over-surveyed as this in itself could have negative effects on their feedback.

### 3.1.5 Reflect

Reflection on the implications of action in this cycle for leadership in enhancing student learning and teaching through responding to student feedback identified the importance of an integrated approach in which top-down policy action is supported by bottom-up implementation. This led the Project Manager to articulate a theoretical model of leadership in which leadership is defined as a consequence of the actions of others, as distributed throughout the organisation with some staff taking leadership in relation to specific aspects of their work or interest and not in relation to others, and as supported by systems and infrastructure. Two of these factors were demonstrated in this cycle with the third emerging as an issue that was taken up in the second cycle.
This suggests that for a multi-level leadership approach to student feedback to be effective, there is need for formal leaders to take action that is congruent with policy decisions in order to develop shared understanding about policy and its implementation. There is also a need for systems and infrastructure to support implementation. For this to occur there is a need for DEVOLVED LEADERSHIP in which power and authority to implement policy is given to the teaching academics. These staff may not hold formal leadership positions but, as they are responsible for learning and teaching and thus for student feedback, they do hold informal leadership roles in student feedback. This is illustrated in Figure 9.

Figure 9 Distributed Leadership Model Element One: Devolved Leadership

![Figure 9 Distributed Leadership Model Element One: Devolved Leadership](image)

In applying this model to the experience in Cycle One the following reflections emerged:

1. The Plenary did provide an opportunity for a vertical slice of the University leadership to discuss their role in responding to student feedback. Emerging issues for leadership in student feedback that were identified by participants at the Plenary included:
   - the need to adopt a positive approach to leadership in the use of student feedback rather than a culture of blame on individual teachers.
   - cultural change leadership takes time.
   - the importance of ensuring an equitable balance between financial returns and resources for quality learning and teaching.
   - the importance of comparing data using a consistent systems approach.
Part A: Developing a Distributed Leadership Model - Section 3: Building Leadership Capacity

2. There is a need to have supportive systems and infrastructure in which learning and teaching occurs. This was particularly illustrated in the plenary feedback that identified obstacles to the effective use of student feedback including university facilities and resources and staff concern about the survey instrument. This confirmed the view emerging from the ART analysis of data that, in addition to a multi-level leadership approach to student feedback, there is need for multi-function leadership engagement. It is only through such a leadership approach that shared understanding and meaning can be developed. This led to recognition that leadership in the use of student feedback needs to extend beyond an exclusive focus on the relationship between the students and teacher, to the interrelated roles of many participants across the university. This was summarised by the DVC(A) in his concluding remarks at the Plenary that:

> the discussion reinforced the view that responding to student feedback is to ensure that there is both a shared understanding and congruent action across the university. It is not simply a teacher responsibility but rather involves all sectors of the University at multiple levels.

3. There is a need for leaders at all levels to demonstrate by the action they take their commitment to implementing university policies and procedures in relation to student feedback. A further issue that emerged from ART activity was the need to ensure that leadership action is congruent with intent if it is to develop shared understanding and meaning. This was illustrated by the initial challenge faced by one of the ARTs in attempting to encourage members to share student feedback about their individual teaching practice at a time when the Head of School had announced that there was the need to reduce the number of teaching staff in the School. This experience suggests a particular challenge for Heads of School and senior leaders of ensuring that using student feedback to improve learning and teaching practice is separated from performance management of staff.
3.2 Cycle Two: Collaborative Leadership

3.2.1 Introduction

The second action research cycle involved the development of a more collaborative approach to building leadership capacity. Leaders of service provider departments became a more integral part of the multi-level leadership approach, while ART members began to explore changes to their learning and teaching practice designed to respond to student feedback. Table 2 presents a summary of the action research process, identified as Collaborative Leadership, that occurred in this second cycle.

Table 2 Action Research Cycle Two: Collaborative Leadership

<table>
<thead>
<tr>
<th>CYCLE TWO</th>
<th>COLLABORATIVE Top-Down</th>
<th>LEADERSHIP Bottom-Up</th>
<th>Middle-Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLAN</td>
<td>ACT</td>
<td>OBSERVE</td>
<td>REFLECT</td>
</tr>
<tr>
<td>Facilitate reflections and analysis of the learning and teaching and student support</td>
<td>ARTs identification of AV facility requirements in teaching spaces and large lecture theatres</td>
<td>Discussion in PT commenced with traditional ‘blame’ approach</td>
<td>Bottom-up</td>
</tr>
<tr>
<td>Facilitate sharing of ideas</td>
<td>Add multi-functional level of leadership –AV/IT, Property Services, Survey Centre, to Project Team</td>
<td>Forum for broad communication between academics and service providers –increased understanding</td>
<td>Participative and collaborative leadership approach developing</td>
</tr>
<tr>
<td>Embed Community of Practice approach to multi-level leadership engagement</td>
<td>Plenary 2 Share experiences from ‘bottom-up’</td>
<td>Provided opportunity for consideration of various contributions to student feedback across university</td>
<td>Middle out leadership</td>
</tr>
</tbody>
</table>

3.2.2 Plan

Reflection from the first cycle of the project on the importance of systems and infrastructure support to enhance student learning and teaching practice resulted in the decision to include representatives from three Systems and Infrastructure Service providers, the Manager Corporate Services, the Associate Director College Relationships (Information Technology Services) and the Manager Survey Centre, to the Project Team. This set the scene for the second cycle of change.
3.2.3 Act

This cycle saw an increase in the level of activity by all parties involved in the project.

ART Leaders took on a more proactive role in identifying issues outside the control and responsibility of individual teachers and discussing these in Project Team meetings.

ARTs were assisted by external Facilitators with expertise in pedagogy. The leadership contribution made by Facilitators varied depending on the ART. One of the Facilitators provided external examples of successful student support, another provided knowledge of issues of pedagogy that complemented the discipline-based expertise, and the third assisted with the development of an ethics application that would help ART members engage in scholarship into their teaching practice. An Appreciative Inquiry approach to identification of issues was adopted by one ART.

ART Facilitators met regularly to share experiences from the different disciplinary perspectives. Given the value of these meetings as forums for linking action being taken by ART members to reflection upon leadership issues, it was decided that ART Leaders would be invited to attend the Facilitator meetings. While this placed further time constraints on ART Leaders, it did serve to assist in developing their understanding of the dual role of academics in improving student learning: as teachers designing and delivering the learning experience for students and as leaders of teaching practice in positively responding to student feedback and making improvements.

With the addition of leaders from the systems and infrastructure providers, the Project Team expanded its focus to explore the leadership contribution of Service providers in the improvement of the student learning experience. Discussion in the Project Team concerning issues raised by the ARTs and timely action taken by representatives of these service providers to the issues identified by the ARTs, led to the Project Team adopting a more central role in this project.

The second Plenary was held on August 7th. The main focus of the plenary was to facilitate the broader sharing of ART progress and experience to date and to provide the opportunity for ART members to reflect upon the question of leadership capacity building that was occurring.

Presentations identified the ongoing focus of each of the ARTs on the analysis of student feedback data. This confirmed the importance of the need for a more multi-functional leadership approach to student feedback.

The School of Mathematical and Geospatial Science ART analysis of CES feedback had revealed issues of learning environment (room allocation, noise level, computer availability) as a problem.

ART members had begun to share learning and teaching techniques and this had led to positive teaching strategies that had encouraged staff to trial changes in their own classes. For example the ART Leader reported an across
School increase in the Good Teaching Scale (GTS) of 12% for Semester 1 2007 compared with 2006. While it was recognised that more longitudinal data is required before a cause and effect conclusion can be certain, this positive result had encouraged staff to take an interest in further improving their teaching practice.

Challenges identified for the individual academic included; how to design appropriate learning and teaching practice to accommodate the discipline diversity of the students. In addition the question of how to respond to student feedback that lecturers need to be enthusiastic and knowledgable was discussed.

The School of Property, Construction and Project Management, ART identified the importance of two issues, the learning and teaching space available for teaching and the teaching experience of staff. Using their discipline expertise (building and construction) they were developing a “picture” of what type of teaching spaces might be more appropriate to improve student learning.

The ART had also identified the need for more qualitative student feedback in order to explore students concerns. To this end they prepared questions and propositions from their analysis of the CES to explore with student Focus groups.

The School of Economics, Finance and Marketing ART had identified teaching space issues such as room acoustics and temperature as well as teaching practice (in particular learning support in the form of notes and practice exams and more personalised feedback) as being re-occurring themes in student feedback.

In addition, from a staff Discussion Forum, the issue of levels of student engagement had emerged. Teachers felt that there was a gap between student expectations of individual attention provided in their secondary school experience and feedback possible when lecturers are responsible for large classes of close to 1000 students at university. In addition there was a perception that students are inadequately prepared for university study and that this led to low levels of motivation and commitment by the students. This was demonstrated by student disruption in class, their lack of use of resources and services provided to help their learning and their reluctance to approach staff for help. The large size of classes made it difficult for staff to identify students ‘in danger’. In response ART members were exploring literature to identify suggestions for change used elsewhere that could be used to improve levels of student engagement.

3.2.4 Observe

Activity in this cycle provided the opportunity for Service providers to gain an understanding of, and respond to, issues outside the power of individual teachers that attracts negative student feedback. The inclusion of senior leaders from Service providers as members of the Project Team provided an effective forum for communication of problems related to the whole student experience and the opportunity to brainstorm joint problem solutions.
The importance of the Plenary sessions as a forum for ARTs to share their progress, engage in discussion and obtain the support of senior leaders was identified as an important advance. The major outcome from the second plenary was discussion of the need to develop increased opportunities to disseminate knowledge about changes being made and positive outcomes that were resulting across the university. The comment was made that the project was providing the link to develop change processes that can be shared with other schools to lead towards a cultural change across RMIT.

3.2.5 Reflect

Reflection on the Leadership issues that emerged in this cycle suggest a second element in a leadership model for enhancing student learning and teaching practice through responding to student feedback. This COLLABORATIVE LEADERSHIP element is illustrated in Figure 10.

Figure 10 Distributed Leadership Model Element Two: Collaborative Leadership

A collaborative approach includes all relevant services across the university in leadership designed to develop joint problem-solving. The importance of joint collaboration was also demonstrated in the ARTs experience of developing meaning by sharing individual experiences. This led to the identification of small changes to teaching practice that had significant effects for the students.

It was recognised that while collaboration requires time for trust to be developed and blame removed, once the move to a more collaborative teamwork approach occurs it is easier to attach meaning to student feedback and develop strategies to improve the student experience. This involves a more shared systems approach that links various student service providers and academics, an issue that emerged as a central factor in improving student feedback.
3.3 Cycle Three: Engaged Leadership

3.3.1 Introduction

The third action research cycle involved the design of approaches to build leadership capacity by transferring lessons being learnt within and beyond those leaders engaged in the project. Table 3 presents a summary of the action research process, identified as Engaged Leadership, that occurred in this third cycle. This cycle roughly paralleled the end of the first year of the project and thus provided a useful ‘pause point’ to the action research process.

Table 3 Action Research Cycle Three: Engaged Leadership

<table>
<thead>
<tr>
<th>CYCLE THREE</th>
<th>ENGAGED Transfer Lessons</th>
<th>LEADERSHIP Formal – Informal</th>
<th>Networking</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLAN</td>
<td>ACT</td>
<td>OBSERVE</td>
<td>REFLECT</td>
</tr>
<tr>
<td>Facilitate sharing of ideas</td>
<td>Project website</td>
<td>Need to involve pedagogy experts</td>
<td>Active engagement</td>
</tr>
<tr>
<td>Facilitate reflections and analysis of leadership critical success factors and barriers to building leadership capacity</td>
<td>Heads of School presentations to disseminate</td>
<td>‘Not invented here’ syndrome</td>
<td>Systematic approach to networking</td>
</tr>
<tr>
<td>ARTs</td>
<td>Extra funding support by DVC(A) Presentations to Grad. Cort. Tertiary T&amp;L</td>
<td>Different roles of Facilitators</td>
<td>Role of learning and teaching expert (facilitator)</td>
</tr>
<tr>
<td>Develop interview and focus group guiding questions and analyse data from interviews</td>
<td>Interviews held with cross section of senior leaders.</td>
<td>Analysis of interviews revealed no extra insights from Plenary decision</td>
<td>Need to balance ‘pure’ and ‘applied’ approach to research Purpose and appropriateness of interviews?</td>
</tr>
<tr>
<td>Develop evaluation tools, data collection and analysis</td>
<td>Mid project review</td>
<td>Is evaluation singular or group think</td>
<td>How to avoid a ‘blame’ culture when things go wrong</td>
</tr>
</tbody>
</table>

3.3.2 Plan

While Cycle Two demonstrated the second leadership element of a collaborative approach to student feedback, it was recognised that moving from the existing competitive culture (both between academic disciplines and also between academic and Service ‘managerial’ approaches) presents a significant challenge for universities. This led to the next cycle that focussed on exploring action to engage more leaders by transferring the lessons being learnt from the project to the broader university community.
3.3.3 Act

This cycle commenced with a number of actions:

1. The agreement by the Project Sponsor, DVC(A) to provide extra funding to support some of the initiatives for change that several of the ARTs had identified.

2. The creation of a project website open to all staff in order to develop a more systematic approach to disseminating information to assist transferability. Project documents including Reports, Notes from Plenary sessions and reference material being developed were placed on the website. Case studies of ART activities were publicised through the RMIT On-line Learning and Teaching magazine, Ed.

3. A Mid Project Review was prepared and circulated for comment. This identified achievements over the first year of the project.

4. Interviews were held with a number of PVCs to complement the group feedback emerging from other project activities.

5. ART members were invited to make presentations on what they were doing to improve student feedback to new Lecturers at Level A and B in the Graduate Certificate of Tertiary Teaching and Learning.

The third Plenary was designed to enable ARTs to present their project progress on student feedback made during the first year. It was also designed to enable Heads of School to present their experience in building leadership capacity resulting from the ART activities.

ARTs stated that the project had led to an increase in discussion by staff in the School on how to improve teaching practice and learning outcomes for students. This had resulted in a more positive approach to the CES than had been the case with staff spending less time on criticising the CES as an instrument and more time on what changes could be made to improve student feedback.

Heads of School emphasised the importance of embedding the leadership capacity that was being built by making changes within the School as well as disseminating the experience and outcomes across Schools and Colleges. Examples of action they had taken within the Schools included the introduction of incentives to extend teamwork to improving student feedback to other Program teams, the establishment of School-based Learning and Teaching Committees, and the design of opportunities for staff to become leaders in learning and teaching within the School.
3.3.4 Observe

While there was evidence of ARTs sharing experiences and outcomes within their School, the challenge of disseminating knowledge across disciplines, especially given the structural separation that characterises disciplinary separation within universities, was demonstrated in this cycle. The relatively low attendance of Heads of School not directly involved in this project at the Plenary demonstrated the difficulty of transferring experiences between Schools, particularly across disciplines. This has been termed the challenge of the ‘not-invented-here’ problems in explaining the gap between knowing what needs to be done and actually doing it (Pfeiffer & Sutton).

This suggested the need for a further extension of the multi-level, multi-function leadership to leaders of learning and teaching in the Colleges and School across the University. To action this the Project Manager commenced giving regular reports to the Learning and Teaching Leaders group made up of the Deans of Academic Development from each of the three Colleges, the Academic Registrar and the Heads of RMIT TAFE Schools. She also reported on developments in the project to the Community of Scholars that had been established as a regular forum for academics who had been recognised internally and externally for their excellence in learning and teaching. The Teaching Fellow who was project managing another ALTC funded project into the development of Teaching Quality Indicators (TQI) was also invited to Plenary sessions.

3.3.5 Reflect

Reflection on the Leadership issues that emerged in Cycle 2 suggests a third element in a leadership framework for student feedback, ENGAGED LEADERSHIP. This is illustrated in Figure 11 as encompassing formal and informal leaders (recognised for their excellence in teaching and learning) being provided with systematised opportunities to network in order to explore the potential for innovations and lessons learnt in one discipline to be adapted to different disciplines.

Figure 11 Distributed Leadership Model Element Three: Engaged Leadership
3.4 Cycle Four: Participative Leadership

3.4.1 Introduction

The fourth action research cycle involved the consolidation of a participative leadership approach in the building of leadership capacity by sharing the achievements that were being made and including more stakeholders, including students, in the project. Table 4 presents a summary of the action research process, identified as Participative Leadership, that occurred in this fourth cycle.

Table 4 Action Research Cycle Four: Participative Leadership

<table>
<thead>
<tr>
<th>CYCLE FOUR</th>
<th>PARTICIPATIVE Stakeholders</th>
<th>LEADERSHIP Consultation</th>
<th>Two-way Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLAN</td>
<td>ACT</td>
<td>OBSERVE</td>
<td>REFLECT</td>
</tr>
<tr>
<td>Facilitate understanding of student feedback challenges</td>
<td>Lecture visit program Support Services leaders attend commencing classes</td>
<td>Need for regular, centralised, systematic process to inform</td>
<td>Joint process for shared meaning</td>
</tr>
<tr>
<td>Facilitate reflections and analysis of leadership critical success factors and barriers to building leadership capacity</td>
<td>Plenary – Systematic changes support services L-SAG</td>
<td>Need formal and informal discussion across Colleges</td>
<td>Centrally managed system, locally provided L&amp;T support</td>
</tr>
<tr>
<td>ARTs</td>
<td>LTIF grants Proposals for change</td>
<td>Increased focus in Schools on L&amp;T</td>
<td>Link local action to central policy and process</td>
</tr>
<tr>
<td>Student feedback process</td>
<td>Students attend plenary</td>
<td>Engage students more actively – students as leaders in feedback</td>
<td></td>
</tr>
</tbody>
</table>

3.4.2 Plan

Given the challenges that emerged in Cycle Three related to the active engagement of all staff in transferring lessons learnt from one discipline to another, the importance of undertaking action to consolidate the leadership capacity in student feedback became the focus of the fourth cycle. This was appropriate given that the ARTs had finalised their analysis and were introducing trials of a series of specific changes to learning and teaching. It was also relevant as the University was planning to introduce a series of related changes to improve the student learning experience that would benefit from this consolidation. This included finance to improve infrastructure and services to centralise the management and provision of various student services and the expansion of on-line learning tools for improved use in learning and teaching.
3.4.3 Act

Each ART was successful in obtaining funding from the University Strategic Learning and Teaching Innovation Fund (LTIF) to further develop and trial innovations that had emerged from this project. Projects funded under the LTIF are assessed against a number of criteria including improving student learning experiences, outcomes and employment opportunities, innovation, strategic alignment, university wide application, value for money.

The ART proposals that were successful included trials of:

- the design of new learning activities for students.
- computer interactive equipment in class.
- mobile phone integrated technology to provide instant feedback to students on their learning.
- Establishment of a Statistics Centre to develop improved survey tools for collecting and analyzing student feedback was championed by the DVC(A) as a response to the limitations in the data analysis identified by ARTs in the first cycle of this project.

ARTs implemented a series of innovations (see Case Studies PART B for more detail) including:

The School of Mathematical and Geospatial Science ART:

- Change in the weighting of assessment with less weighting to the final exam and more on weekly (weblearn) tests that students could attempt a number of times to assist their learning.
- Notes made available for students online.
- Optional extra marks offered if students chose to undertake an extra project that related maths topics to their particular discipline.

The School of Property, Construction and Project Management, ART:

- In consultation with an industry expert, material for an entire course was rewritten as a case study, with theory used to support the study.
- Assessment was changed from a final exam and assignment to a case study based assignment with a reflective journal.
- One course was re-organised as a dual-sector (TAFE and Higher Education) innovation using the spare capacity of a fully equipped TAFE CAD facility. The 220 students enrolled in the course were split into 19 small workshops and the CAD component taught by a TAFE teacher.
- Smart-board technology was installed in some of the teaching spaces.
- Analysis of spaces used for teaching was undertaken.
The School of Economics, Finance and Marketing ART:

- An audience response system using mobile phone technology to give instant feedback to students on their understanding of key concepts and their performance relative to their peers was introduced.

- ‘Drop-in sessions’ were scheduled as weekly events to supplement lectures.

- Multimedia exercises were designed to relate business statistics to real-world events.

- Podcasts were used to articulate key concepts and provide feedback on assessment pieces.

- Demonstration lectures were reduced in size from 120 students to a maximum of 80 students and the A lecture group of 600 was split into two groups of 300.

- The content of one course was significantly redesigned and supported by AV materials to link “real world” relevance of materials.

In addition to the variety of changes introduced by the ARTs, action was taken by the Project Team to consolidate the leadership capacity building that had begun in earlier cycles. This included:

- An invitation to Project Team members to attend, in the second week of semester, large classes to experience first-hand service-related problems for teaching. Project Team members identified a range of problems including: lighting, noise and acoustics in the venues, lack of internet access, distance between lecturer and students that makes engagement with the students impossible, lack of desktops for students.

- Discussions in the Project Team that followed these visits resulted in significant changes to the practices of service providers aimed at consolidating improvements.

Service providers were extremely positive about the opportunity this experience gave them to not only talk to staff directly about the problems they face, but also to experience first hand the challenges staff and students were experiencing.

The fourth Plenary was designed to share information on the systematic changes that were being made to consolidate improvements in service provision. In addition to the usual attendees to the plenary sessions, particular invitations were sent to Heads of School, Deans Academic Development, PVC’s, School Teaching and Learning Directors and Chairs, College IT Managers in order to further disseminate experience.
Presentations were made by representatives from Property Services and AV/IT Services that outlined the following changes that had become part of the systematic approach to service provision:

– A Venue Information Sheet had been developed for all teaching spaces made available on the Property Services website as well as being distributed to each School's Reception area. A standard checklist box of resources was available in each venue, together with a troubleshooting list.

– Orientation sessions had been developed for staff on how to best use the facilities in each venue.

– AV services have agreed to add a Date of Service sticker on all equipment.

– The method of reporting problems was to be developed to signal to staff the support is available and how to access it.

– Syllabus Plus had been upgraded with enhanced features to improve timetabling.

– All strategic spaces had been centralised into a single management system as a strategy to provide a single point of contact to respond to staff requests.

– A new phone response system had been introduced to ensure teaching spaces have priority directly to a contact person.

– A Standard model was being introduced for all teaching spaces.

– IT Response time had been extended from 8am to 8pm for teaching support.

– A plan to upgrade AV and IT in teaching spaces to improve online support had been developed.

– A system to proactively manage and maintain resources rather than just respond to problems had been developed.

At the Plenary, the Head of School of Property Services and Construction and Project Management explained that to consolidate a more proactive approach to negative student feedback about learning and teaching spaces, the Vice Chancellor had established a Learning Space Advisory Group (LSAG). The aim of LSAG is to ensure that innovative learning and teaching principles and practices systematically inform the design and development of RMIT infrastructure. Membership of LSAG includes formal Learning and Teaching Leaders, the Manager Property Services, the ALTC Leadership Project Manager, and a provision for the College PVC(A). LSAG would advise, and work with Property Services to develop architectural briefs to ensure that innovative Learning and Teaching principles and practices are included in RMIT’s Infrastructure plans.
Of the establishment of LSAG the DVC(A) stated:

>This is the most tangible and powerful creation of this project in terms of distributed leadership.

A further unique characteristic of this Plenary was a presentation by two students on what students need for a good learning environment. The students identified:

- teaching rooms with good acoustics as it is hard to concentrate when students are talking rather than listening.
- large classes split into smaller classes to improve interactions.
- interesting lectures that are not just a repetition of notes or power-points obtainable through the Learning Hub.
- small distances to travel between buildings for lectures.

Students responded positively to the presentations about the changes in service provision and infrastructure outlines and stated that this was:

>positive evidence that RMIT is working collaboratively to create a more effective learning environment for students.

Students also commented on the need for teaching practices to include:

- feedback on student work with comments on how to improve;
- theory linked to real life situations with examples;
- regular interactions with lecturers in addition to formal lectures;
- optional assignments to gain extra marks;
- face-to-face lectures that provide opportunities for student interaction with other students;
- variety in format for classes;
- class notes posted on the learning hub a few days before the face to face class;
- Lectopia and Podcasts to enable students to stop & rewind.

In order to consolidate understanding of current, and to identify future, improvements, attendees participated in small group activities. Ideas that emerged from this discussion included the need for:

- Ongoing communication and training on the new room timetabling process to assist matching class sizes to room capacity;
- A systematic process to ensure ongoing maintenance of facilities.
3.4.4 Observe

The need to create a regular, centralised, opportunity for academics and service providers to discuss issues of concern was emphasised by the positive feedback of service providers to the lecture visits. Most stated that these visits had identified problems of which they had not previously been aware. One example was the negative student feedback from the need to move venues for lecturers for three weeks during the Comedy Festival. This led to a decision to discontinue this practice.

Information shared with the learning and teaching formal and informal leaders resulted in greater discussion between the Schools and the PVC(A) Office in several colleges about how to increase learning and teaching support. In one College such discussions contributed to a decision to locate learning and teaching experts in Schools for part of the year.

ARTs stated that School and College-based meetings had lead to an increasing focus in the Schools on the importance of learning and teaching improvements. The potential value of the initiatives that developed from ART discussions was validated by the awarding of LTIF funding to consolidate these as projects across the University.

3.4.5 Reflect

Reflection on the Leadership issues that emerged in Cycle Three suggests a fourth element in a leadership framework for student feedback, PARTICIPATIVE LEADERSHIP. It reinforced the importance of a co-ordinated systematic approach. This would enable the participation of all service provision in a centrally co-ordinated body to ensure university wide impact that enables decentralised learning and teaching support tailored to specific disciplinary needs. The establishment of LSAG demonstrated the opportunity to ensure shared meaning to form the basis of new relationships between learning and teaching experts and service providers. In addition, the funding of LTIF projects resulted in consolidation of the advantages of a top-down, middle-out participative teamwork approach to leadership.

A further reflection from this cycle was the potential for recognition of students as stakeholders in building leadership capacity. This suggests a more inclusive role for students beyond a passive contribution of simply providing periodic feedback through the CES. This supported the views of the ARTs that there is a need to more actively engage students more in student-centered learning experiences.

This raises the question of the format, analysis and use of student feedback collected through surveys such as the CES. This question needs to be pursued in a further leadership project that focuses more on the role and contribution of students as stakeholders in improving student feedback. Figure 12 presents
a framework in which systems are established to encourage consultation between all stakeholders (academics and students) both centrally and in distributed levels that would enable a broader range of student feedback to be possible and in which students are provided with more contextual information on which to make their feedback more meaningful.

A further interesting challenge that emerged in this phase, although it had been commented upon earlier at Facilitator and ART Leaders meetings, was the effect of the high turnover of senior staff. During the two-year life of this project, all 3 PVC (Academic) were new, and only 1 of 3 of the College-based Directors of Academic Development remained in their position for the full 2 years.

**Figure 12 Distributed Leadership Model Element Four: Participative Leadership**
3.5 Cycle Five: Accredited Leadership

3.5.1 Introduction

The fifth action research cycle involved embedding the multi-level approach to leadership capacity building by developing opportunities for staff achievements in enhancing student learning and teaching practice to be recognised and rewarded. Table 5 presents a summary of the action research process, identified as Accredited Leadership, that occurred in this final cycle.

Table 5 Action Research Cycle Five: Accredited Leadership

<table>
<thead>
<tr>
<th>CYCLE FIVE</th>
<th>ACCREDITED Professional Development</th>
<th>LEADERSHIP Recognition</th>
<th>PRACTICE Reward</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLAN</td>
<td>ACT</td>
<td>OBSERVE</td>
<td>REFLECT</td>
</tr>
<tr>
<td>Facilitate understanding of student feedback challenges</td>
<td>ART presentations at plenary</td>
<td>LTIF student feedback projects</td>
<td>Need formal and informal leader network-central and decentralised</td>
</tr>
<tr>
<td>ARTs</td>
<td>Present achievements</td>
<td>Development of interest in L&amp;T in Schools</td>
<td>Reward and recognise staff</td>
</tr>
<tr>
<td>Student feedback process</td>
<td>Extension L-SAG Plenary</td>
<td>Closer interrelated work with student services</td>
<td>Link all initiatives on student feedback</td>
</tr>
<tr>
<td>Provide resources for Leadership PD</td>
<td>Plenary – presentation from People and Culture</td>
<td></td>
<td>Reward staff – Teaching focussed promotion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Recognise staff- Teaching Awards</td>
</tr>
</tbody>
</table>

3.5.2 Plan

Given attempts to consolidate activity taken to improve student feedback and to build leadership capacity for student feedback in Cycle Four, the final cycle focussed on embedding these changes in Institutional practice in a manner that is sustainable over time. This meant building on changes that had been introduced during earlier cycles of the project, transferring the lessons learnt from the project into other projects and recognising leadership capacity developed by participants in the project. It also meant that two groups who had not previously had a central role in this project, Student Services and People and Culture (Human Resources) became more involved in this final cycle.
3.5.3 Act

Discussion in the Project Team as to how to ensure that the academic staff and service providers continue to communicate about Infrastructure and IT/AV led to a decision to establish a group similar to LSAG. The proposed Learning Environment Improvement Group (L-EIG) was designed to adopt an action-research approach with the same methodology of Plan, Act, Observe and Reflect, through continuous cycles of improvement. L-EIG would provide an integrating space to facilitate shared discussion around the monitoring and improving of the learning environment across RMIT. L-EIG would:

- Operate as a collaborative group to facilitate and provide support for the improvement of learning environments.
- Act upon and implement changes in response to feedback from students and staff.
- Communicate improvements to interested staff.
- Liaise with and input into university committees and groups (such as LSAG).
- Report to the DVC(A) on issues related to improving learning environments.

It was envisaged that L-EIG would have a minimum of 4 meetings per year, one at the start and end of each semester, with others scheduled as required. Membership of L-EIG would follow the multi-level leadership framework adopted for this project with representation from the DVC(A), Managers of each of the Service providers and Student Services, Deans Academic Development (Colleges), Director of Learning and Teaching and Resource Directors (of each of the three Colleges).

However, at a subsequent Project Meeting it was agreed that rather than creating a separate group, LSAG would be asked to extend its Terms of Reference and activities. It was proposed that L-SAG would sponsor four forums per year in which Learning and Teaching leaders from Schools and Colleges would have the opportunity to discuss improvements needed to the learning environment.

A further change that has been embedded into RMIT processes is that the Vice President Resources is now part of the Program Annual Review process. This provides an opportunity for resource issues that affect entire Programs to be discussed with a view to identifying future resource needs.

The final Plenary was designed to embed changes introduced in the project by, firstly, presenting a snapshot of ART initiatives undertaken as a result of this project and to link these to other LTIF projects to improve student feedback. Secondly, to identify how initiatives in this project link to initiatives introduced by Student Services and People and Culture in the design of professional development activities.
ART presentations included:

**The School of Mathematical and Geospatial Sciences ART leader** reiterated the importance of ensuring that students recognise their role in their own learning. Students need to be informed of the purpose and importance of the CES and how to differentiate between teaching practices and learning space and IT/AV issues.

Teaching practices identified as most important in student feedback included the need to provide context-related exemplars appropriate to the various disciplines and the need for timely feedback to students. Above all, the value and importance of staff working as a team to share ideas was emphasised.

**The School of Property, Construction and Project Management ART leader** reiterated the need to ensure that learning spaces are appropriate for the learning style of the academic teacher. In addition there is the need to ensure that technology is updated to ensure students have access to the latest resources for learning.

The ART leader also emphasised the need for teaching and assessment practices to be continually improved and provided an example of the introduction of a more reflective learning and assessment approach that had a significant impact on student learning.

**The School of Economics, Finance and Marketing ART** emphasised the need to develop a transition program to assist students to develop from passive to active learners and to provide more opportunities for individual feedback and attention. This requires support from the formal leadership in providing time and resources.

The three LTIF supported student feedback project leaders identified issues of:

- Providing opportunities for student self-assessment of their knowledge.
- Designing formative assessment spread over a semester with appropriate weighting.
- The importance of using statistical analysis to identify meaningful feedback to academic teaching staff on student feedback.

The presentation by Student Services identified the importance of responding to general formal student feedback about their University experience. In 2007 a comprehensive analysis of student feedback data sources over the preceding five years was undertaken. From this analysis four persistent themes of student concern were identified:

- teaching staff and quality;
- program structure and course content;

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3 Discussions with commencing students 2007 Volume 1 Summary of findings. Drawing on the Student Experience Survey (SES), Course Experience Questionnaire (CEQ) and Student Outcomes Survey (SOS).
– social affinity/the ‘networked student’;
– learning environments, administration and resource.

A key finding in the report was the need to more closely align student Orientation and Induction. Orientation involves general familiarisation of the student with the University community. Induction relates more to academic familiarisation of the student with their program of study. While Student Services have developed a more inclusive program to engage students socially across the university this needs to be linked to their programs of study.

The University Registrar explained the purpose of action taken by RMIT in response to complaints from students about their perception of inconsistent and unjust decisions in regard to their assessment, and the need to provide a more systematic approach to assisting students with chronic conditions by a more inclusive Special Consideration policy. A new policy has been developed to be inclusive in the sense that the aim is to make equitable assessment arrangements the preferred choice for students with chronic conditions.

The representative from People and Culture identified the need for closer alignment between the issues that emerged in this project and the formal professional development opportunity for leadership and student feedback in various aspects of management. RMIT had a Leadership program for the Senior Executive for the past two years. In 2008 this program was extended to a second stage to include staff with Direct Reports to the Senior Executive (Directors of Research and Learning and Teaching, Program Directors). However there is a need to link this more closely to leadership needs established in this project.

Following this presentation participants to the Plenary were asked to consider:

– What are the key priorities for professional development for staff in the use of student feedback?
– What additions to current professional development opportunities would assist to support initiatives to improve student feedback?
– What actions would make the process better to support participation of RMIT staff in projects like the ALTC Leadership grant?
3.5.4 Observe

Examples of changes in university procedures that aim to embed positive processes used in, and outcomes achieved from this project, were achieved in this cycle.

- The extension of the brief for LSAG seeks to establish the creation of an ongoing, regular opportunity for academics and student service providers to meet together to identify and seek joint solutions to issues of service provision identified by students in their feedback. This was recognised by all participants in the projects as a major change in university approach to improving the student learning environment.

- Evidence of the embedding of the philosophy identified in the Academic Plan as top-down policy with ‘bottom-up’ initiatives for learning and teaching was evidenced through the links between ART projects and RMIT LTIF grants.

- Recognition of the need for a closer working relationship between action taken in the Academic Colleges and Schools and the Student Services group was also recognised, as well as the need for closer working links with People and Culture.

- At the School level there is clear evidence that action by the ARTs had resulted in increased interest of academics in learning and teaching issues.

3.5.5 Reflect

Reflection on the Leadership issues that emerged in Cycle Five suggests a fifth element in a leadership framework for student feedback, ACCREDITED LEADERSHIP. In terms of the theory of leadership that has underpinned this project, there is evidence that the multi-level leadership approach to addressing student feedback issues has developed a systematic approach. This has resulted in a meaningful change process that recognises new forms of formal and informal leadership in teaching excellence. In addition to the examples given above, evidence of the embedding of a new culture of participative and collaborative multi-level and multi-functional leadership across the university is provided in several other activities, not directly associated with this project:

- Several other ALTC funded projects have adopted the participative and collaborative multi-level and multi-functional leadership model. The Promoting Excellence Initiative (PEI) funded by ATLC in 2007 is underpinned by the establishment of a Community of Scholars (academics recognised externally and internally for their excellence in teaching), a Community of Early Career Academics and a university wide Learning and Teaching Scholarship Series supported by the 2 Communities. Similarly the Teaching Quality Indicators (TQI) project has used a similar model that has involved a cross section of university personnel in exploring the current, and potentially future, indicators of teaching quality excellence for RMIT.
Several RMIT internal projects, Work Integrated Learning and Graduate Capabilities, have adopted a participative and collaborative multi-level leadership model to inform new policy and procedures.

A further important change has been the development of supportive systems and procedures to recognise and reward academics for taking leadership in learning and teaching:

- In December 2008 the DVC(A) announced a new emphasis on the weight given to the contribution of teaching in promotion decisions. This is to be achieved by a broadening of emphasis that will require some combination of teaching, leadership and scholarship in all academic promotions (except in the case of research-only appointments). The new approach relies upon the following definitions of teaching, leadership and scholarship:

  - Teaching refers to the practice of teaching and requires evidence of excellent performance in student outcomes, such as progression rates, student feedback measures and, where applicable, success in higher degree supervision.

  - Leadership refers to motivating, influencing and inspiring others to achieve the goals of the University. The promotion application should evidence leadership aligned with the emphasis the applicant has placed on his or her teaching, research or both. For those wishing to emphasise teaching, there should be solid evidence of leadership related to teaching, such as performance in course or program innovation, design and/or co-ordination; or in mentoring or supervising teaching staff.

  - Scholarship refers to the generation of knowledge and its application to the solution of real world problems. It includes Excellence in Research for Australia (ERA) indicators and/or learning and teaching inputs and outputs. Learning and teaching inputs and outputs can be operationally defined as those that would be accepted by ALTC as teaching citations, ALTC grants, new courseware, websites, presentations, and dissemination strategies.

This important change illustrates the opportunity to triangulate reward and recognition of academic excellence via internal and external awards. Figure 13 presents a framework to provide such an accredited process. The 2008 RMIT University Teaching Awards included an award for Student Centred Learning in the Business discipline to one of the ART members. This award was made for the innovative teaching practice he introduced as part of this project.
3.6 Conclusion

In conclusion, the Action Research approach adopted for this project provided the opportunity to build leadership capacity by engaging formal decision-making leaders and staff leading action to implement university strategies, plans and policy, in action to identify and implement new ideas to improve student feedback. In so doing, five reflective cycles of change, each identifying a different element of a leadership framework for student feedback were experienced over the two years in which this project occurred. Together these form the P.A.C.E.D. Leadership Model to Enhance Student Learning presented at the beginning of Section 3.

![Distributed Leadership Model Element Five: Accredited Leadership](image-url)
3.7 References


4. Section Four: Outcomes and Critical Success Factors

This Section presents the actual project outcomes in terms of the intended project outcomes and the critical success factors (CSFs) identified for the building of effective leadership development in student feedback.

The four intended outcomes from this project were:

1. Leadership Project action and implementation plans for the project.
2. Multi-level approaches and strategies to effect change management.
3. A distributed leadership framework in the use of student feedback to improve teaching and learning.
4. Resources to assist the development and implementation of the distributed leadership framework.

4.1 Outcome 1: Leadership Project Action and Implementation Plans

As identified in Section 2, the project was successfully implemented over a two year period with minor variations to timing and format. The Action Research Process enabled the change management process to proceed through cycles of change as illustrated in Section 3. Each cycle was subject to analysis and reflection that enabled the project to evolve flexibly.
4.1.1 Critical Success Factors (CSFs)

The CSFs related to project action and implementation included:

I. Communication of a clearly articulated plan of action and timetable for action at the commencement of the project. This enabled all parties to understand their leadership role. This was particularly important given the evolving nature of Action Research in which the focus of attention is on the leadership process undertaken to reach the outcome rather than the more familiar managerial approach of focussing solely on the outcome.

II. A degree of flexibility in the plan of action to enable small changes to be made. The most important changes included the addition of representatives of student service providers to the Project Team, a more active role for the Project Team and adjustments to the plenary activities as more active two-way forums for communication.

III. Consultation with all relevant participants before changes to the project process were made. This enabled plans to be changed without discomforting participants.

IV. Identification of a theoretical underpinning for the project from which observations and reflections on actions could be used to articulate lessons learnt from the various participants.

V. Periodic re-assessment of the project plan to ensure that the roles and functions of the various teams involved in the project were still relevant. The most important of these was the internal mid-term Review undertaken in October-November 2007.

VI. Expansion of the stakeholders involved in the project to include support, learning and teaching pedagogical leaders and students (as representatives of the larger student body and in focus groups).

VII. Progressive dissemination of information and feedback to and from relevant participants across the university and the broader higher education sector. This included information displayed on a dedicated website, regular meetings of the Reference Group, periodic reports to the ALTC and presentations to ALTC project forums.

VIII. Benchmarking across the HE sector through the participation of the Project Manager and the Project Officer at ALTC Leadership Project forums.
4.1.2 Reflection on the Outcomes

Positive examples of improved student feedback were recorded by the ARTs in response to changes they implemented to learning and teaching practice. These improvements are reported at length in the ART Reports in part B of this Report. They include:

- Favourable student attitude towards the use of classroom technology.
- Improvement in the GTS.
- Positive student feedback to the additional formative assessment tasks, feedback on their progress and to course support changes.

In addition a number of positive outcomes for the ongoing improvement of student feedback were identified in interviews and Focus Group meetings with various participants in the project.

I. Service Providers stated that the project provided them with the opportunity to open communication channels between academic teaching staff and service providers. An interesting comment was made that formal leaders (such as Heads of School) in traditional meetings tend to filter out things they have heard at the local level and present this in a more strategic way. This has both positive and negative outcomes as often service providers do not hear the real problems as perceived by academics.

As a result of this more open communication service providers heard about some of the problems with venues used for teaching purposes of which they had previously been unaware. For example the project provided the opportunity for service providers to attend classes and experience the challenges of teaching in different venues. One example cited was the concern of academic teaching staff about having to vacate one of the theatres used for teaching for five weeks during the Comedy Festival. Once the problem was identified the relevant department (Property and Services) informed the Comedy Festival organisers that they could no longer have the theatre. A comment made that illustrated this as a positive outcome was:

"there are so many things as you drift around RMIT that are an annual thing that just happen, no-one’s really responsible or understands the history of them, and they’re not reviewed …it’s only a sort of ad hoc or an unusual experience like this that you get to hear about them...."
II. Project Team meetings were identified as providing regular opportunities for service providers and academic leaders (Heads of School) to meet face-to-face, to discuss and problem-solve issues, and to take other issues back to the areas responsible for further discussion. Discussion advanced from the more traditional ‘blame’ and ‘whinge’ focus to joint problem solving. One example cited was the discussion over the use of AV/IT equipment in teaching spaces that resulted in the production of Venue Sheets with details of resources and instructions on how to use the equipment to be displayed in each venue and on the website.

III. Plenary sessions organised differently as small group activities were identified as providing for much more informed discussion than traditional presentations followed by a question and answer session.

4.2 Outcome 2: Multi-level Approaches and Strategies to Effect Change Management

While it is recognised that the change management strategy implemented across the university through the various teams established as part of the project is not a fait accompli, the changes achieved were substantive and establish the basis for further ongoing change.

4.2.1 Critical Success Factors (CSFs)

The Critical Success Factors for the change management strategy to improve student feedback suggest that effective change management requires the individual academic to be supported by a multi-level leadership approach if a distributed leadership framework is to be effective. The CSFs identified include:

I. Recognition

Recognition and reward of individual and team contributions requires further change to accord learning and teaching excellence to be considered equal to research.

II. Encouragement

Resource support for individuals and teams to design and develop innovative approaches to improving the student learning experience is evidenced. This requires new approaches to resource distribution that take into account the need to provide time and finance for individual academics to design, develop, trial and evaluate new initiatives.
III. Acknowledgement

University policy and practice that acknowledges the importance of clearly articulated university commitment to supporting improvements in the student experience. Policies and practices designed to assist academics to design, develop and implement learning and teaching innovations are critical.

IV. Leadership

Multi-level leadership from immediate supervision of the Head of School up to the Senior Executive group of the university is acknowledged.

V. Integration

Integrated support through services that more actively engage students in their own learning, particularly in their transition into the Higher Education environment.

VI. Systems

Cross-functional systems support from multi-functional services across the university. This requires both formal and informal opportunities for representatives from all student and resource service providers to work collaboratively.

VII. Environment

Appropriate learning environments that are supportive of the student learning experiences. This requires a collaborative approach in which the demands on, and needs of, all participants are recognised and addressed.

VIII. Dissemination

Opportunities to disseminate ideas to underpin collaboration through participative approaches to knowledge sharing as a fundamental value and principal that underpins the university approach to leadership. This includes developing opportunities for all parties to have their ‘voice’ heard.

These CSFs are presented as the R.E.A.L.I.S.E.D. Change Management Model to enhance student feedback:
4.2.2 Reflection on the Outcomes

Reflection on the outcome of the Change Management Strategy in improving Student Feedback resulted in the identification of a number of planned improvements for the future at various leadership levels:

I. Service providers plan to:
   - formalise an annual feedback and debriefing process
   - establish forums in which problems identified by academics can be discussed with the aim of resolving issues through a partnership approach.

II. A Service Level Agreement has been established that will result in a more systematic approach that links central and distributed AV/IT providers together with a maintenance plan for equipment.

III. A change process in which service providers are in regular contact with academic participants and leaders is regarded as a positive change management strategy, although there is some concern that this may not continue after the project as it has been difficult to develop academic input into the design of teaching spaces.
IV. Multi-level approaches to leadership in curricula improvement strategies for assessment of learning practices, teaching large classes and teaching capabilities were identified in the ART Case Studies. However in so doing it was also recognised that single point-in-time improvements in student feedback are not sufficient and there is need for a process of benchmarking over time that will enable longer-term trends. This led the DVC(A) to establish a special project in which staff from the School of Mathematics and Geospatial Sciences undertook a statistical study to identify the key indicators of teaching quality. This study found that good teaching is the primary factor for 6 out of the 9 subject areas in the College of Business, 3 out of 12 subject areas in the College of Design and Social Context, and 13 out of 25 subject areas in the College of Science, Engineering and Technology. There was also a strong correlation between GTS and overall course satisfaction scores at a university level, among the three Colleges, and for most subject areas.

The study confirmed the findings of the ARTs in terms of the key indicators of student satisfaction. For the College of Business the top five indicators were (in order of importance) Good Teaching; course enjoyment, organisation of the course, the provision of good course materials, facilities (environment). For the College of Design and Social Context the top five indicators were (in order of importance) course enjoyment, Good Teaching, organisation of the course, the provision of good course materials and facilities (environment). For the College of Science, Engineering and Technology the top five indicators were (in order of importance) Good Teaching, organisation of the course, course enjoyment, the provision of good course materials and facilities (environment).

In addition to the quantitative study, a qualitative study identified commonalities in positive student responses to teachers that are enthusiastic, engage the students, actively listen to student needs, implement changes for students, establish clear structure and objectives in courses, clearly communicate feedback and are motivated by CES results.

While a direct causal link between the action taken to improve student feedback by the three ARTs cannot be proved, both the School of Economics, Finance and Marketing and the School of Mathematics and Geospatial Sciences recorded an increase in the Overall Student Satisfaction Rate of around 7% between 2007 and 2008 (from 60% to 67.1% and from 69% to 76.4% respectively), although the School of Property and Construction recorded a slight decrease in overall student satisfaction over the same period. Over the same period all Schools recorded an increase in the Good Teaching Score (GTS) of between 1-10%.

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4 Bedford, A; Romagnano, S; Da Costa, C; Bedford, M.(2007) CES Performance Analysis: Quantitative and Qualitative Investigation of CES Data: What Drives Good Teaching, RMIT School of Mathematical & Geospatial Sciences
4.3 Outcome Three: A Distributed Leadership Model to Enhance Student Learning and Teaching Practice

4.3.1 Critical Success Factors (CSFs)

As indicated in Section 3, the Action Research Cycles identified a number of CSFs required to increase the capacity of academics to provide leadership in using student feedback to enhance learning and teaching:

I. University Policies and Procedures that are internally consistent and communicated to all relevant parties so that there is a shared understanding by all parties.

II. Opportunities for staff to network and share lessons learnt in terms of existing pedagogy and to make contributions to the scholarship of learning and teaching. The latter is particularly important in universities given the need to demonstrate the teaching-research nexus.

III. The need for regular two-way joint consultative opportunities between all stakeholders (academics, students and student service providers) to engage in meaningful discussion about future improvements in learning and teaching practice that build on the data collected from past experiences.

IV. All levels of leaders and all service providers in contributing expertise and skills to improving student feedback.

V. The potential for reward and recognition of contributions made to improving student feedback.

4.3.2 Reflection on the Outcome of the Experience of Multi-Level Leadership in Student Feedback

While the project identified the need for, and examples of, each of the five elements of leadership required for a P.A.C.E.D Distributed Leadership Model it was recognised that further attention needs to be given to developing this model.
The **P.A.C.E.D** Distributed Leadership Model has five key leadership characteristics:

I. Participative leadership

II. Accredited leadership

III. Collaborative leadership

IV. Engaged leadership

V. Devolved

**Participative Leadership**

The Participative leadership element requires all stakeholders (academics, formal leaders, service providers and students) in improving student feedback to be included in two-way communication and joint consultative processes.

**Accredited Leadership**

The Accredited leadership element requires staff and students who are leaders in the improvement of student feedback to be recognised (through awards and certificates), rewarded (through promotion) and provided with development opportunities (through leadership professional development and other training opportunities).

**Collaborative Leadership**

The Collaborative leadership element requires the establishment of opportunities for formal leadership strategy, practices and policy (Top-down) to be designed for implementation that suits different disciplines, contexts and circumstances (Bottom-Up) and to be supported by systematic service provision and infrastructure support (Middle-out).

**Engaged Leadership**

The Engaged leadership element requires a systematic approach to networking that enables all leaders in pedagogy (formal leaders and recognised experts in learning and teaching delivery to transfer lessons learnt for learning and teaching experience and innovations to be shared so that they can be transferred through their adaptation to different environments.

**Devolved Leadership**

The Devolved leadership element underpins all other elements through a commitment across the university to develop systems, infrastructure and formal leadership action that is congruent such that shared understanding is achieved.
4.4 Outcome Four: Resources to Implement the P.A.C.E.D Distributed Leadership Model to Enhance Student Learning

The Resources developed to implement the P.A.C.E.D Leadership model to build leadership capacity in student feedback differ from traditional professional development resources designed for formal leadership training. This is a consequence of the Action Research process that underpinned this project in which leadership capacity in student feedback resulted from direct engagement of staff in activities and initiatives associated with the process of improving student feedback. These resources are presented in a companion Resource Portfolio.
5. Section Five: Recommendations

This project was unique within RMIT in its action research methodology, the involvement of representatives from the multi-levels of leadership across RMIT and the commitment of time and finance to assist ARTs to explore innovations to improve the student learning experience.

This report identifies a number of outcomes from this project including:

- A (P.A.C.E.D) Distributed Leadership Model
- A (R.E.A.L.I.S.E.D) Change Management Model

Both these models, and the resource framework that underpins them have been identified as leading to the improvement of the student experience of learning as evidenced in their feedback.

Given this the following recommendations are made:

1. Within RMIT a distributed leadership group be established to investigate what structural, behavioural factors are required to support the sustainability of the P.A.C.E.D Distributed Leadership Model that has emerged from this project, and in particular to implement the factors identified as required for the R.E.A.L.I.S.E.D Change Management Model.

   The group to use an action research methodology to enable ongoing observation and reflection of lessons learnt. Action by the group should commence with an exploration of the application of the Resource Framework used to support the P.A.C.E.D Distributed Leadership Model to further improve the student learning experience.

   The group should consider a broader approach to improving the student learning experience through:

   I. Co-ordinated, multi-service approaches to assist student transition.
   II. New approaches to collect formative student feedback in a way that empowers students to accept responsibility for their own learning.
   III. Regular forums to encourage a culture of shared responsibility to improve the student learning experience.
   IV. Increased opportunities for networks between various academic and service providers to ensure greater understanding of, and timely response to, student concerns.
2. Extension of the Action Research Approach to leadership capacity building across the university, for example through dissemination of ART experience and achievements in learning and teaching forums in each College.

3. A commitment from all levels of leadership across RMIT that student feedback only will be used to improve learning and teaching practice and not for the performance management of staff.

4. Consideration of how students (as stakeholders) may gain greater ‘voice’ in a more formative manner than the summative approach of end of Semester Course Experience Surveys. For example how Staff-Student Consultative Committees may be strengthened.

5. Discussion with organisers of the RMIT Leadership Professional Development team in People and Culture to include sessions on the P.A.C.E.D Distributed Leadership Model.

6. Extension of the Student Transition Program developed by PVC (Student Services) area to include academic transition issues.
6. Section Six: Networking ALTC Projects

The RMIT Distributed Leadership project in the use of student feedback is one of five projects funded by the ALTC in 2006 and 2007 that have Institutional Distributed Leadership as their focus (rather than an Institutional Positional/Structural focus). The other four projects are:

- Development of a Distributed Institutional Leadership Capacity in Online Learning and Teaching (ACU).
- Promoting Learning and Teaching Communities (ANU).
- Distributive Leadership for Learning and Teaching: Developing the Faculty Scholar Model (Wollongong, Tasmania, Flinders, LaTrobe).
- Leadership and Assessment: Strengthening the Nexus (Macquarie).

While each has a different focus upon which leadership capacity is being built, each is underpinned by a focus on developing leadership capacity across the university beyond that of positional/structural leadership (Parker 2008). In addition one project [Leadership and Assessment: Strengthening the Nexus (Macquarie)] adopted an Action Research methodology similar to that underpinning the RMIT project.

In addition, two projects that relate to positional/structural leadership, have adopted Action Research methodologies which involve the engagement of leaders representative of a distributed leadership approach. These include:

- Leadership for implementing improvements in the Learning and Teaching Quality Circles (Monash).

A consolidating Leadership Grant EOI was submitted to ALTC in conjunction with Woollongong University, Australian Catholic University and Maquarie University in March 2009. The EOI that aims to explore synergies between the projects in the thematic issues, theoretical underpinnings and processes and practices that have emerged from these projects has been accepted for full proposal. The project aims will be to action what Parker (2008, p.50) identified as the need to explore synergies between these projects to:

*To maximise the sector-wide benefit … these kinds of synergies, together with effective strategies for disseminating the Project outcomes across the sector need to be investigated.*
7. Section Seven: Dissemination of Project Outcomes

Dissemination of the project outcomes and findings has included both internal and external dissemination across the higher education sector.

1. Internal dissemination

As was indicated in Section 3, given the Action Research approach adopted for this project, internal dissemination of the project outcomes has occurred on an ongoing basis through Plenary sessions operating as a Community of Practice and through communication on the website.

In addition ARTs have disseminated information on their particular projects at RMIT-wide, as well as College and School level Learning and Teaching Forums, Expos and Seminars. ART members have addressed seminar sessions of Early Career Academics enrolled in the Graduate Certificate of Tertiary Teaching and Learning.

A website was established as a repository for all material developed during the project, and case studies of ART activities were published in the university On-line Learning and Teaching magazine, Ed.

The DVC(A) and Heads of School have disseminated information about the project at Senior Executive meetings.

2. External dissemination

External dissemination has also been undertaken through:

1. Presentation to the ALTC funded TRNexus project 2007.


3. A paper has been accepted as a full peer-reviewed paper for presentation at the 2009 HERDSA Conference.

4. A paper to be presented at the Royal Institute of Chartered Surveyors at their annual technology conference COBRA in South Africa in September 2009.


7. A paper has been submitted for the 2009 AQTF Conference.

8. It is planned to discuss publication of a book on Distributed Leadership on student feedback. The book is planned in two parts;

PART A: Conceptual chapters on Distributed Leadership with contributions from:

– ALTC.

– Each of the universities undertaking ALTC leadership project to provide the context, rational and purpose of their projects.

– Exploration of the link between Action Research methodologies and Distributed Leadership approaches.

PART B: Vignettes of case studies and examples from the projects.

– It is anticipated that at least 15 vignettes would be possible to include from these projects.

– Ongoing dissemination activities that include the launch of this Report, the presentation of papers at Conferences and the publication of Journal articles is occurring, with the intent to produce a book of readings with other universities who have trialed a Multi-level Leadership approach.
Part B:

Building Leadership Capacity — Case Studies in Implementation
Part B presents the experience of the three Action Research Teams established as part of this project to create a shared sense of purpose between members in using student feedback. As outlined in Part A the three ARTs represented each of the three academic Colleges (Business, Design and Social Context and Science, Engineering and Technology) of the University. These three disciplinary areas identified low levels of student satisfaction in some areas and volunteered to become part of this project as follows:

- **School of Economics, Finance and Marketing, College of Business (Case Study 1).**

  Four courses were chosen from primarily core first year courses in Business Statistics, Marketing Principles, Macroeconomics, and Prices and Markets. These courses are common to a number of undergraduate Business degrees with a total of 1000-1500 students (onshore) per year in lecture cohorts. The issue chosen was courses with large enrolments and low student satisfaction.

- **School of Property, Construction and Project Management, College of Design and Social Context (DSC) (Case Study 2).**

  Two courses were chosen, one a final year course in Construction Management with 85 students and the other a first year course in Computer Aided Drafting with 21 students. The issue chosen was teaching capabilities in course delivery, including how teaching capabilities were affected by the quality of the learning environment which has affected student satisfaction.

- **School of Mathematical and Geospatial Sciences, College of Science Engineering and Technology (SET) (Case Study 3).**

  Two courses in mathematics are taught as ‘service’ courses across a broad range of Programs, each with 220 students from mixed disciplines. The issue chosen was service teaching large classes which affect student satisfaction.

The ARTs were supported by small incentive grants to assist their activities. Each ART retained ownership of their contribution to the project activities.

While the focus of these case studies is on actions taken by the ARTs aimed at improving student feedback, they each demonstrate leadership capacity building in the design, implementation and assessment of strategies implemented. Each of the case studies demonstrate the need for holistic change leadership to improve student learning and teaching as summarised in the R.E.A.L.I.S.E.D Change Management Model presented in Part One. In each case study action by individual academics (and teams of academics) to change their teaching practice requires an interlinked supportive process. Change in teaching practices introduced in the case studies includes:

- Use of technology to provide students with instant feedback on their understanding of key concepts and individual performance relative to peers and to provide additional commentary and feedback to students on key points raised in lectures and by students.

- Introduction of ‘drop-in’ sessions to supplement lectures and tutorials.
– Design of multimedia exercises to make course content more relevant to the students.

– Review of course material to link lectures and tutorials more succinctly.

– Additional formative assessment in the form of multimedia exercises; mid-semester tests, online tests, assignments and reflection papers.

– Adoption of a more relevant textbook supported by a DVD series.

– Short overview of material handled in the previous lecture presented at the commencement of each lecture and a final Review lecture.

– Increased, and faster feedback to students on performance in tests, with email utilised to monitor student progress.

– Reduction of class numbers in lectures.

– Course redesign to update material.

Although each of the ARTs recognised the need for more longitudinal studies of student feedback on the changes introduced, all documented improvements in student feedback as follows:

– Favourable student attitude towards the use of classroom technology although the broad effectiveness was debated.

– Participation in ‘drop-in’ sessions.

– Improvement in the GTS, although the reasons for this need further investigation.

– Positive student feedback to the additional formative assessment tasks and feedback on their progress to students.

– Positive student feedback to course support changes (text and DVD).

Recommendations arising from the ART projects include:

– Continuation of support for staff engaged in seeking to improve the student learning and teaching experience.

– Ongoing provision of appropriate infrastructure.

– Development of a transition program to prepare students for a student-centered higher education engagement.
8. Case Study One: 
BUS: Economics, Finance & Marketing ART Report

Using Student Feedback to Enhance the Learning Experience in Large Common Core Business Courses

School of Economics, Finance & Marketing
College of Business

8.1 ART Participants

ART Leader
Dr Kate Westberg  Teaching and Learning Director

ART Members
Professor Tony Naughton  Head of School
Assoc Prof Bruce Cowling  Director of Undergraduate Programs
Ms Jill Beer  Course Coordinator Econ 1020 Prices and Markets
Mr Vineet Kapoor  Course Coordinator Econ 1030 Business Statistics
Dr Ashton de Silva  Course Coordinator Econ 1030 Business Statistics (Sem 2, 2008)
Dr Raju Mulye  Course Coordinator MKTG1025 Marketing Principles
Ms Sveta Risman  Course Coordinator ECON1010 Macroeconomics 1

ART Facilitator
Mr John Milton  Learning and Teaching Unit
8.2 Acknowledgements

We would like to acknowledge the support of both the ALTC and RMIT’s Learning and Teaching Unit for providing the opportunity and assistance for this project.

In addition to the project team, several other staff members added significant value to the project. We would like to acknowledge the contribution of members from the relevant course teams as well as the School’s Director of Research Professor Tim Fry, School research assistant Breanna Pelligrini and Rae Subramaniam from the College’s Academic Development Group.

The following section provides the context and primary focus.
8.3 Background and Project Focus

What courses were the subject of this project? Give total student numbers and breakdown how it was taught at the start of the project. Include any other relevant information about the profile of the students and the context of delivery.

Within the Business College, all undergraduate students, regardless of the particular program in which they are enrolled (i.e. Bachelor of Business (Accounting), Bachelor of Business (Marketing), Bachelor of Business (Information Systems) etc…) undertake eight Common Core courses in addition to the courses required to complete their specific degree.

Our project focused on the student experience in the four Common Core courses delivered by our School, three of which are generally undertaken in a student’s first year. The courses of interest are MKTG1025 Marketing Principles, ECON1030 Business Statistics, ECON1010 Macroeconomics 1 and ECON1020 Prices and Markets. This project focused specifically on the onshore delivery of these courses; however it should be noted that they are offered in many offshore locations including Singapore, Malaysia, Hong Kong, Shanghai and Vietnam.

As mentioned, students who undertake these courses in Melbourne are from all business disciplines. In addition, there are a number of students enrolled from programs external to the Business College for which these are either a required part of their program or are undertaken as an elective. Each of these courses is delivered to approximately 1200-1500 Melbourne-based students per year. The delivery mode generally includes a two hour lecture of 300-500 students and a two hour demonstration lecture/feedback session of 80-120 devoted to undertaking exercises designed to explore and apply concepts discussed in the lecture. The exception is Marketing Principles, which is delivered via a two hour lecture and a one hour tutorial (class sizes are the same as the other courses). Given the student numbers, the largest lectures cannot be held in the Business building (building 108) and primarily are held in the Capitol Theatre and the Casey Plaza Theatre. Each course is managed by a Course Coordinator, who generally coordinates all locations, and is delivered by a team of lecturers and tutors. Staff numbers allocated to each course ranges from 2 – 6 people per semester and includes both full time and sessional staff.

Given the scope of these courses and their importance to each of the Business College’s undergraduate offerings, there has been ongoing course development and trial of a number of initiatives in the past to improve the student experience including: reviews of course content, the integration of technology and the introduction of various forms of student support. The following provides a brief description of each course:

**MKTG1025 – Marketing Principles**

Marketing Principles is an introductory marketing course aimed at students commencing the Bachelor of Business (Marketing) or students from other courses who have not previously studied marketing. MKTG1025 is a core course for the Bachelor of Business (Marketing). MKTG1025 may be
undertaken as a single elective by students outside the Marketing Degree or as the first of several marketing electives taken as a minor stream. MKTG1025 is a prerequisite for all other marketing courses.

Marketing Principles provides an overview of the marketing process, and how it works within the Australian business context. The aim of MKTG1025 is to introduce students to the important concepts underpinning the marketing process and the practical tools used by marketers to implement marketing strategies and campaigns. MKTG1025 is based on both the theory and practice of marketing and introduces the student to the importance of the marketing philosophy to future business viability.

For marketing students, MKTG1025 offers a preview to many of the important marketing courses they will be studying throughout their course and provides them with the basic concepts and tools with which to explore the more specialised marketing courses that follow. For all other students MKTG1025 offers insights into the field of marketing, putting into context the role of marketing in an organisation and how it interfaces with other areas within the organisation.

Students are expected to attend a two hour lecture and a one hour demonstration lecture each week.

**ECON1030 – Business Statistics**

Business Statistics is a course that introduces students to a range of statistical techniques used by managers in most major business disciplines such as Accounting, Auditing, Economics, Finance, Human Resource Management, Information Technology, Logistics and Transport and Marketing. Hence, Business Statistics aims to equip students with a set of fundamental quantitative skills that are essential for graduates to succeed in today’s modern business environment. In particular, with exposure to Microsoft Excel and an array of practical and business relevant examples, students are able to obtain hands on experience by applying the statistical techniques. On completion, students will have the proficiency to perform basic descriptive analysis of data, interpret and present analytical findings and also interpret and critically evaluate statistical analyses presented by others.

Students are expected to attend a two hour lecture and a two hour demonstration lecture each week. Additionally, drop-in sessions are available to provide students with an informal opportunity to seek further assistance.

**ECON1010 – Macroeconomics 1**

Macroeconomics aims to introduce students to the structure of today’s Australian economy and demonstrate how economic developments impact the Australian society. It provides students with the appropriate analytical skills to assist in identifying the current state of an economy and likely future developments. On completion, students will have the ability to critically examine the effects of actual and projected macroeconomic policies, discuss macroeconomic events that have occurred both domestically and across the Asia-Pacific region and discuss how current economic developments affect business environments and the general public of Australia.
Students are expected to attend a three hour lecture each week that usually runs for approximately two to two and a half hours with the remainder time set aside for students to ask questions. During lectures, basic economic theories are presented to students in each module with application questions scattered throughout the lecture presentation to indicate the type of problems that will be presented in the final exam and the calibre of answers required. Students are also required to attend a two hour feedback forum each week, in which they are given the opportunity to apply the theoretical principles to the real economy through weekly assessment.

**ECON1020 – Prices and Markets**

Prices and Markets is a study of microeconomic theory and its applications. The course focuses on how individual consumers and firms behave, the functioning of the markets within which they operate, and in particular how prices are determined. The purpose of the course is to enable students to acquire the basic analytical tools needed to understand the working of the micro economy. On completing the course, students should have some understanding of the basic microeconomic problems facing society, the interaction of demand and supply in the market place, the nature and relevance of various costs facing firms, pricing policies and profit maximising conditions relevant to various market structures. They should also have an awareness of the possible causes of market failure and the role of the government and be able to apply simple microeconomic theory to some practical problems.

Students are expected to attend a two hour lecture and a two hour demonstration lecture each week. Discussion of the material in the demonstration lecture each week should take no more than 1.5 hours, leaving time for students to obtain individual assistance from the lecturer at the end of the class.

**What were the central themes or issues being addressed in the project?**

Consistent with the larger ALTC project, the key focus of our ART project was to analyse, evaluate and explore different forms of feedback received from students to better understand how we might continue to improve the learning experience in these courses. Based on this feedback, several initiatives were developed and implemented with the aim of enhancing the student learning experience. The Common Core courses were an appropriate focus for our project for the following reasons:

- the large student numbers and the associated logistical challenges;
- the diverse student background in terms of chosen disciplines;
- the importance of these courses within the Business College and each of its undergraduate programs;
- the unique challenges associated with students transitioning from school; and
- the resources dedicated to each course.
How do these relate to student feedback?

The forms of student feedback that were considered in this project included Course Experience Survey (CES) results (both quantitative and qualitative), the Student Experience Survey (SES), minutes from Staff Student Consultative Committee (SSCC) meetings, informal comments received by teaching staff during class or consultation and finally, student focus groups conducted specifically for this project. Emerging from the analysis of existing student feedback mechanisms were key themes that were then explored in the focus groups including:

- student expectations;
- student experience;
- usefulness of the assessment and feedback;
- student perceptions of course relevance; and
- student perceptions of their role in the learning process.

8.4 Actions

How did the team structure itself, how has this changed during the project?

The team included the members listed at the beginning of this report. The focus of the project was identified by the Head of School, in discussion with the Director of Learning and Teaching. The relevant staff were then asked to participate. Meetings of the entire ART were held at various points in the project to discuss the analysis of student feedback as well as the course development initiatives of the individual course teams. At various times, additional staff members were invited to attend meetings and provide input where relevant including: the School research assistant, The Director of Research, members of the common core teaching teams and other senior members of staff. Course coordinators were responsible for identifying initiatives that would be most appropriate for their individual courses. In addition, smaller meetings and discussions were held among course teams and between some of the members of the ART as required to progress the project.

The team underwent minimal change during the project with the exception of a change in Course Coordinator for Business Statistics. However, the new coordinator had been involved to some degree from the start of the project as he was an existing member of the Business Statistics course team.
What did course teams do to improve student feedback and why?

Our project commenced in March 2007 with the initial stage involving the analysis and collection of data on student feedback. This activity was undertaken during both Semesters 1 and 2, 2007. In addition, course development initiatives were discussed and developed in relation to this feedback as well as the perceptions and experience of the teaching staff. The second stage focused on the implementation of these initiatives which was undertaken by one course (ECON1030 Business Statistics) in Semester 2, 2007 and all courses in Semester 1, 2008. An evaluation of course developments was then undertaken and further refinements made for Semester 2, 2008. These activities will be discussed in the following sections.

Stage 1: Analysis and Planning

The first stage of the project involved data collection and analysis relating to student feedback as follows:

- Each course coordinator undertook analysis of the qualitative feedback from the CES to identify both strengths and opportunities for improvement of the student experience. Key themes which emerged included the need for improved physical learning environments, increased learning support from staff and more personalised feedback on progress.

- A research assistant, under the supervision of our Director of Research, was enlisted to analyse quantitative CES data to determine key drivers of the student experience and in particular the Good Teaching Scale (GTS).

The following CES items were found to have a positive correlation with the six GTS items:

*The course is well organised*

*The course contributes to my confidence in tackling unfamiliar problems*

*I feel I can actively participate in my class*

*I can see how I’ll be able to use what I am learning in my career*

*Overall, I am satisfied with the quality of this course*

Furthermore, on average, international students gave a higher GTS rating than domestic students and mature students gave a higher GTS rating.

- All teaching staff associated with the Common Core (course coordinators, lecturers and tutors) were invited to attend a discussion forum to explore their views of the learning experience and add to the data by including informal feedback that teaching staff may have received. The discussion also highlighted the challenges of teaching a large class as well as sharing information on the strengths of each course (what works) and what potential improvements could be made.
A range of issues were identified in relation to the student body including the transition from school to university, which is particularly difficult for students in large classes, as well as increased hours of part time work and lack of accountability. Suggestions for improvement related to facilities, class sizes, different assessment to allow for more feedback and student motivation/preparation.

- Student focus groups were conducted to explore in more depth some of the issues emerging from the data analysis including student expectations and experience, transition issues and assessment and feedback.

The findings suggested that students have clear ideas of what the teaching staff should be doing (i.e. be enthusiastic about their topic, clearly explain, be organised) but when asked about their role as students in the teaching and learning equation, they did not appear to have considered it. Students also want to have access to the lecturer in class (as opposed to making an appointment). A range of issues were raised by the students with some differences across the courses. Students made comments about the content, teaching style, assessment, lecturer - student relationship, course structure and resources.

- A literature review was undertaken to capture current best practice and strategies to maximise the student experience in large classes. Further literature was consulted regarding the audience response system initiative undertaken in MKTG1025 Marketing Principles. Regarding this initiative, the literature was particularly useful in identifying critical success factors and potential pitfalls in the application of this type of technology.

In addition to the above information and resources, a seminar on innovative and engaging teaching approaches was held within the School. It was facilitated by a Carrick award winner from Monash University, Peter Wagstaff. This gave staff additional ideas to consider in reassessing current practices and developing new initiatives.

*What changes occurred in each course? – detail changes before and after*

**Stage 2: Action – Course Development**

Based on the above data and discussions within the ART (as well as within the teaching teams), each Course Coordinator identified a range of initiatives designed to improve the student experience in their course. These initiatives were developed and implemented by each Coordinator in conjunction with their course team and in discussion with the other members of the ART. These initiatives will be outlined by course as follows:

**MKTG1025 – Marketing Principles**

Based on student comments which suggested that they wanted more feedback on how they were performing in the course, a major initiative was undertaken to incorporate ‘instant’ feedback on students’ understanding of key concepts and their performance relative to their peers. In addition, the Course Coordinator sought to encourage more active learning and participation during the lecture time in a large lecture environment. It has been suggested
that large lectures are increasingly resulting in student disengagement as students are not challenged to think and participate (Cooper and Robinson, 2000). The first crucial step in raising students’ awareness of their own learning involves providing them with fast, accurate and individual feedback about their learning engagement in context (Meyer and Shanahan, 2004, p.446).

First Semester 2008:

An ‘audience response system’ trial using mobile phone technology was incorporated into two of the three lecture times held each week: one daytime class primarily consisting of full time students and one evening class with mainly part time students. Mobile phone technology was chosen over the conventional ‘clicker’ technology as the literature indicated that there were issues related to students remembering to bring their clickers to class as well as the burden of the additional cost of purchasing a clicker. Mobile phones, on the other hand, are ubiquitous amongst students and the access cost was estimated to be minimal (between 10 cents and $1 per class), depending on the package the students had with their mobile provider.

Participation in this trial was voluntary and commenced in week four of the semester. Prior to the lecture in which this initiative was launched, students were required to pre-register their phone by logging on to a website after which they were sent an activation link and a bookmark to record the site location in their telephone web browser.

Once students were registered, the process worked as follows. After explaining a key concept in the lecture, the lecturer showed a slide with a multiple choice question designed to test students’ deep understanding of the concept. For example, at the conclusion of a discussion relating to consumer behaviour and product strategy, the following question would be shown:

Consumers buy Panadol tablets because they relieve their headaches faster than other headache tablets. What the consumer is really buying is called __________:

- a. actual product
- b. core benefit
- c. augmented product
- d. convenience
- e. customer motivation

Students were able to access a website via their mobile phones and enter their response to the question within the couple of minutes allowed for during the lecture. The lecturer was then able to display the results i.e. the number of students that selected each option, and then inform students of the correct answer while explaining the rationale.
Using this technology, students received immediate feedback as to whether they understood the concept and how they performed relative to the class. In addition, the lecturer was able to see how well the concept had been understood by the class and then either spend more time on the concept or proceed to the next part of the lecture. Approximately five questions were presented in a two-hour lecture. To create enthusiasm for this initiative and to encourage and reward student participation, prizes were randomly awarded during each lecture by drawing names from a list of participants from the previous week’s class. Prizes such as movie tickets, bags of lollies and Krispy Kreme doughnut vouchers were awarded each week during the trial.

This initiative was supported with a Learning and Teaching Investment Fund (LTIF) grant from RMIT.

Second Semester 2008:

As a consequence of the feedback from Semester 1, 2008 regarding the cost concerns and uncertainty relating to the use of mobile phones, the textbook publishers developed an alternative method based on the Votopedia technology developed by CSIRO which would be cost neutral to the students. This new technology was trialled in Semester 2. As this technology was in the developmental stage, it was only tested in the relatively smaller evening class comprised of mature age students. This cohort of students was more receptive to new technologies according to the Coordinator’s experience in trialling this technology in Semester 1.

The second technology that was applied in the course in Semester 2 was podcasting. The podcasts consisted of a commentary on the lecture of the week and student work. The objective was to highlight key points arising from (1) the topic of the week, (2) student questions (elicited in classes and through the online Distributed Learning System (DLS), and (3) the Coordinator’s observations of students’ work in progress including student performance on quizzes and debates. The aim of the podcasts was to provide additional feedback to students in a form they can readily access and assimilate. The podcasts are delivered through the DLS using multiple technologies.

ECON1030 – Business Statistics

It should be noted that the majority of undergraduate programs offered by the Business College do not require maths as a pre-requisite. Based on student feedback relating to difficulties with course material due to a non-maths background, as well as student feedback on the GTS items relating to feedback, action was taken to address these concerns. In addition, many of the criticisms of large classes by students relate to the lack of interaction with teaching staff (Carbone and Greenberg, 1998) and their impersonal nature (Cooper and Robinson, 2000). “Large classes often set up a distance between instructors and students” (Cooper and Robinson, 2000, p. 9) The Course Coordinator sought to trial a solution to this concern commencing initially in Semester 2, 2007 and continuing in first Semester 2008.
Second Semester 2007:

‘Drop-in sessions’ were trialled at scheduled times during the week to supplement the lectures and demonstration lectures. The sessions were held in a classroom in Building 108 (three per week, two of which were staffed by lecturers and one by a tutor). These sessions were promoted at each lecture (which are mainly held in Capitol Theatre) and in the demonstration lectures as well as by a course email sent by the Coordinator. In particular, the benefits of attending these sessions were communicated as an opportunity for students to get helpful feedback on how they were going in the course, to assist with difficulties they might be having with their work as well as to provide them with additional comments on their work.

These benefits were linked to specific GTS items as follows:

Q5 The teaching staff normally give me helpful feedback on how I am going in this course

Q19 The staff make a real effort to understand difficulties I might be having with my work

Q20 The staff put a lot of time into commenting on my work

First Semester 2008:

Based on the evaluation from Semester 2, 2007, which will be discussed in Section 4.0, the drop-in sessions were continued and actively promoted. A number of other initiatives were developed throughout this semester with the intention to launch them in Semester 2, 2008. These include:

- Multimedia exercises. The motivation for these exercises was to help students to understand the relevance of statistics by exploring how statistics is used in the media. Some of these exercises were trialled late in Semester 1, 2008 and feedback suggests that this would be a useful addition to demonstration lectures as it appealed to students across all disciplinary areas.

- Review of course materials. The course materials were revamped for implementation in Semester 2, 2008, making the lecture and tutorials more intertwined. In addition the new textbook which has been adopted provides convenient online learning opportunities for students.

Second Semester 2008:

A set of four homework assignments each worth 2.5% were incorporated as additional assessment tasks for students. In total these assignments contribute to 10% of a student’s final course grade. Marks are emailed to students, and marked assignments are available for collection from drop-in sessions. Solutions are posted on the DLS with an accompanying video explaining the solutions. Hence, enhancement of personalised feedback and student engagement was the focal point for this initiative and the need
for regular self study should also be reinforced. The textbook change was also made in Semester 2. The new textbook aims to improve the level of student engagement by providing students with supplementary online resources including solutions, videos and case studies.

**ECON1010 – Macroeconomics 1**

*First Semester 2008:*

Macroeconomics 1 undergoes regular changes and updates with a more substantial re-work of materials undertaken approximately every three or four years. In mid-2006 a decision was made to change textbooks and publishers. As such, the course was to be re-written with the goal of ‘going live’ in 2008. There were a number of reasons for the change. The new textbook allowed a more ‘modern’ approach to teaching macroeconomics. The authors had worked Keynesian theory into the AS/AD model with the approach that Classical theory is more the long-run perspective of the economy and Keynesian the short run. This approach freed up room in the course to now introduce some new areas such as the exchange rate market. Furthermore, the use of the Commanding Heights DVD series in the course was introduced. The goal of using these DVDs is to help the students connect the theory with reality and ensure they understood the significance of the course regardless of the degree they are undertaking.

2007 was therefore dedicated to re-working the course to integrate both the new textbook and the Commanding Heights series into the course. In previous years, the text was simply additional to the course – extra reading. The new text was to be embedded in the course.

In 2008, the redeveloped course was launched together with the Commanding Heights DVD in all locations (Hong Kong had been used as a preliminary trial in September 2007). The course was modified in both content and delivery for the various locations to accommodate the different economic systems in place (specifically the type of monetary policy undertaken and the methodology used in teaching the exchange rate model – direct or indirect) and the difference in delivery mode.

In Melbourne, there is a two, to two and a half, hour lecture which incorporates the viewing of the DVD series (about 20 minutes in eight of the 12 lectures). There is also a two hour feedback session. In the feedback, students are provided with a ‘test’ which consists of approximately 10 multiple choice questions and a number of short-answer problems (past exam questions). They have 30 minutes to complete the test under formal test conditions. The academic then spends between an hour and an hour and a half going through each of the questions while students ‘mark’ their own paper. The level of student interaction varies from class to class but the general response from students, both informally and through the CES, is that they enjoy the sessions and find them extremely useful.
The main changes that have been incorporated in Semester 1, 2008 are:

- New text.
- DVD series.
- 10-15 minute review at the start of each lecture of the previous week’s lecture.
- The last slide in each week’s lecture outlines the revision questions they should complete at home and students are also directed to complete the practice multiple choice test in Blackboard covering the material taught in that week’s lecture.
- Three voluntary mid-semester tests.
- The final lecture is a review lecture of the materials covered and a preparation for the final exam.

**Second Semester 2008:**

In addition to the weekly feedback forum in-class practise tests, optional mid-semester assessment tasks were introduced consisting of online tests, in-class tests and assignments. Such assessment throughout the semester was introduced to encourage students to continuously review course content, and to also provide students with additional feedback on their progress. Six online multiple choice tests were introduced and students received instantaneous results upon completion of these tests. Correct answers were provided for students and they were advised on areas for further study and review.

Three formal in-class multiple choice tests were also included as an additional form of assessment. Results were uploaded in the online Gradebook with tests and answers uploaded to the DLS for careful review by students. Students who performed poorly on these tests were encouraged to make appointments with staff to discuss the test. Additionally, two assignments were included.

Assignment 1 was submitted via the digital drop-box and Assignment 2 was emailed to a Macroeconomics email account. Both assignments were electronically marked and emailed back to students with an ‘ideal solutions’ answer sheet. All forms of new assessment and various homework exercises reflect the structure of the final exam and hence have been designed as an ideal aid for exam preparation and also encourage students to constantly revise course material.

Another feedback-enhancing concept implemented in Semester 2 was the progress emails sent to students throughout the semester. Based on various assessment results, two emails were sent during the semester advising students of their progress to date. The emails either congratulate students on their excellent performance or provide recommendations for revision of particular study areas. Students who have performed poorly in the assessment tasks will be advised to seek further assistance from appropriate staff members.
In Semester 2, the feedback forum size was reduced, in some cases to a limit of 50 students, but mostly to around 60 to 80 students in an attempt to enhance student interaction and satisfy the level of individual attention desired by students.

ECON1020 – Prices and Markets

First Semester 2008:

Based on student feedback in relation to course content, two key topics were redeveloped. However, the main focus was on rewriting Practice Test 2, giving a broader coverage of the material and providing more detailed comments on the answers. Some modifications were also made to the lecture demonstration lecture material. Comments on common errors made on the test papers (for each of Test 1 and Test 2) were placed in a separate folder entitled “Test Feedback” rather than in the general Test folders. This was to make the feedback more visible to students to encourage them to read the information.

In addition, to increase the opportunities for student/staff interaction and feedback, the size of the demonstration lectures was reduced from 120 students to a maximum of 80 students and the lecture group of 600 was split into two groups of 300 – although, as the second lecture group followed directly after the first, there was some migration from the 3.30pm group to the 1.30pm group, as that was the preferred time.

Outline the stages of action taken and how it was reflected in the action research cycle process (Plan, Act, Observe, Reflect)

This is detailed in the Project Description in sections 3 and 4.

How have students been involved in the project?

This is also detailed in the Project Description. In brief, students provided the feedback that was the basis for the development of the various course development initiatives. Existing feedback in the form of CES results, SES results and SSCC meeting minutes was analysed and specific feedback was generated for this project through student focus groups.

Given that the initiatives were developed to address student feedback, students obviously had the opportunity to experience the various course developments and to provide feedback which was then used to inform the future direction.
8.5 Outcomes & Evaluation of Initiatives

What outcomes did the project achieve? Expected and unexpected?

Each of the four Common Core Course Coordinators evaluated and sought feedback on the developments they had initiated as follows:

Stage 3: Observe and Evaluate

Student feedback was sought to identify the impact of the changes made in each of the courses. In addition, staff observed the impact of these changes on students in class, the type of communications received from students and in some cases the impact on student results. Each course will be discussed as follows:

MKTG1025 – Marketing Principles

First Semester 2008

Audience response systems were tested in two lecture times in Marketing Principles – Class A (n=300) made up of first year school leavers and class B (n=120) predominantly made up of mature age students. A total of 140 students registered for the trial, primarily from class B. The system was tested in five sessions commencing in week four. The in-class participation rate was disappointingly low. A focus group was conducted part way through the semester and then followed up by an end of semester survey to identify the reasons for this low uptake, particularly in class A.

There were many reasons for lack of participation, but predominantly it was the cost, or perceived cost, associated with using the mobile phones. Many students in class A had low value mobile phone plans which did not allow them to connect to the internet, restricted their access to the provider’s website, or charged them a premium to use the internet facility. Also, a majority of the students from this class had never used the internet function on their mobile phones and were uncertain as to exactly how much it was going to cost them. The mature age students who had a low cost data package or had employers pay for their mobile use were most willing and enthusiastic in their participation in the trials.

In general, students had a favourable attitude towards the use of this technology and indicated they would prefer a class where this technology was used over one that did not, provided it was made available free of cost. Both classes indicated that such initiatives would help them in their learning process. Class A, which had the lowest participation rate, also had a less positive attitude towards the use of technology, compared to class B which participated more actively. Class B saw benefits of this technology, but did not wish to see the expansion of such technologies to take over conventional teaching.
Second Semester 2008

Once the issue of mobile phone charges was addressed, as expected, about 80% of the students from the class had completed all the registered protocol for the trial by week 3, and almost all students had participated in the trial in week 4. Unfortunately this number lost ground in the consecutive weeks due to a technical glitch but recovered again later in the semester once the problem was rectified. A focus group was conducted in the last week to get student feedback on the use of this technology. Similar to the students in class B from Semester 1, students from this class were generally positive about the use of classroom technology, and indeed found the use of mobile phones in class interesting. However, they were not convinced that this would necessarily improve their learning experience or their exam performance. Some believed that this system of feedback was more useful to the lecturer in judging how much of the material has actually been learnt by their students, than to the students per se. In contrast, students evaluated the podcasts, which were also trialled in Semester 2, more favourably as a means of providing feedback.

The podcasts were delivered through the DLS using multiple technologies. This initiative was well received as judged from the open ended comments on the CES and the hit rate recorded which ranged from 1600 to 2000 per podcast, peaking the day before the exam. (see Figure 1). Data is being collated to investigate the relationship between student use of podcast and their course performance. This initiative will be continued in 2009 and will endeavour to involve a minimum of four other School staff in at least one podcast to help expose a wider group of staff to the potential of the technology. The podcast will also include interviews with industry experts on the topic of the week.

Figure 1 Hit rates for Podcast #5
ECON1030 – Business Statistics

Second Semester 2007

A survey separate to the CES was conducted to explore the impact of the drop-in sessions initiated in Semester 2, 2007 as well as other aspects of course design. The results relating to the drop-in sessions have been summarised below:

- Only 14.5% of the students attended the drop-in sessions, this was much higher for the part-time student group (38.3%).

- About 46% attended a drop-in session only once however, the frequency of attendance for the part-time students was much higher with 61.5% attending more than 3 times.

- Of those who attended, 46.4% found the sessions to be extremely useful (this was marginally higher for the part-time students at 53.8%). All of the students who attended the drop-in’s indicated that they found the sessions to be helpful.

- When asked for reasons for non-attendance – 26.1% of the students said that it was due to study time clash; about 24% felt that they did not need additional help and approximately 25% gave the reason as “No Time”. Only about 11.5% students said that they could not attend due to work commitments however, as expected, this was much higher for part-time students at 47.6%.

It was decided that drop-in sessions would be continued in Semester 1, 2008.

First and Second Semester 2008

In recent history, ECON1030 Business Statistics has not fared well according to the Good Teaching Scale (GTS). Typically scores have rarely exceeded 30 as can be seen from Table 1 and Figure 2 below. Prior to 2008, the GTS scores have fluctuated in the 20s each semester and have only recently risen above 30 in 2008. In particular, the GTS increased by 27% between Semester 2, 2007 and Semester 1, 2008 following the introduction of multimedia exercises. Similarly, a further increase in the GTS of 18% occurred between Semester 1 and 2 of 2008 after the homework assignment initiative and textbook change.

On the other hand, following the introduction of Perdisco, an online learning tool, in Semester 1, 2006 and the compulsory mid-semester test in Semester 2, 2007 only a slight change in the GTS was observed. However, since many factors may influence a student’s learning experience, comparing GTS scores before and after the implementation of course initiatives will not necessarily provide a direct indication as to how well an initiative has impacted on the student experience. For instance, the more recent increases in GTS could also be attributed to lagged effects from the introduction of other initiatives in previous semesters. A number of other factors such as the age of students, whether students are international or domestic, full-time or part-time and the particular day or time that classes are scheduled may also influence a student’s learning experience.
Table 1  Course Experience Survey Results for Business Statistics

<table>
<thead>
<tr>
<th>Year, Semester</th>
<th>Good Teaching Scale</th>
<th>Overall Satisfaction Index</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005, Semester 1</td>
<td>22.1</td>
<td>38.3</td>
<td>126</td>
</tr>
<tr>
<td>2005, Semester 2</td>
<td>26.9</td>
<td>37.6</td>
<td>197</td>
</tr>
<tr>
<td>2006, Semester 1</td>
<td>28.7</td>
<td>33.0</td>
<td>188</td>
</tr>
<tr>
<td>2006, Semester 2</td>
<td>19.4</td>
<td>31.5</td>
<td>195</td>
</tr>
<tr>
<td>2007, Semester 1</td>
<td>25.2</td>
<td>31.0</td>
<td>237</td>
</tr>
<tr>
<td>2007, Semester 2</td>
<td>26.9</td>
<td>35.0</td>
<td>228</td>
</tr>
<tr>
<td>2008, Semester 1</td>
<td>33.8</td>
<td>43.2</td>
<td>316</td>
</tr>
<tr>
<td>2008, Semester 2</td>
<td>40.0</td>
<td>43.0</td>
<td>209</td>
</tr>
</tbody>
</table>

Notes: N is the number of surveys completed by students in each semester. In 2005, an overall GTS and Overall Satisfaction Index is reported across all classes. Whereas, the GTS and Overall Satisfaction Index scores reported for semesters in 2006 to 2008 are weighted averages of the scores computed for the classes held in each semester, with the number of surveys completed in each class representing weights.

Three of the six questions that form the GTS relate to the standard of feedback and comments from teaching staff, whereas the other questions relate to how well teaching staff explain concepts, motivate students and make the course interesting. Hence, the GTS is probably more appropriate to assess the feedback enhancing initiatives such as Perdisco, multimedia exercises and homework assignments rather than other initiatives like textbook changes, drop-in sessions and the Helpdesk. Given the questions used to compute the GTS are not explicitly directed towards the trialled initiatives, an independent survey was conducted at the end of the Business Statistics demonstration tutorials held in Semester 2, 2008 to gain insight into how students felt about particular initiatives.
Internal Review Survey

Table 2 reports a summary of the percentage of students who either agreed or strongly agreed to the internal review survey statements that related to the various feedback methods implemented as well as statements specific to the homework assignments and multimedia exercises. 76.6% of students felt the homework assignments in Semester 2, 2008 were an effective feedback method. However, fewer than 70% of students found Perdisco and the demonstration tutorials to be effective forms of feedback and less than half stated the online textbook questions were an effective way of receiving feedback.

The internal review survey also highlighted that 79.5% found the homework assignments to be a good learning tool and not surprisingly, 87.3% appreciated the email notification of their assignment marks. Also, 66.6% of students felt that the online learning tools were helpful for their understanding of the topic material, for example, using the normal distribution.

Table 2 Summary from the ECON1030 Business Statistics Internal Review Survey

<table>
<thead>
<tr>
<th>Statements</th>
<th>Percentage Agree or Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FEEDBACK</strong></td>
<td></td>
</tr>
<tr>
<td>Homework Assignments (emailed marks and online solutions) is an effective form of feedback.</td>
<td>76.6</td>
</tr>
<tr>
<td>Perdisco (Instant online feedback) is an effective form of feedback.</td>
<td>69.8</td>
</tr>
<tr>
<td>Demonstration Tutorials (general discussion feedback) is an effective form of feedback.</td>
<td>67.3</td>
</tr>
<tr>
<td>Online Textbook questions (Instant online feedback) is an effective form of feedback.</td>
<td>47.8</td>
</tr>
<tr>
<td><strong>HOMEWORK ASSIGNMENTS</strong></td>
<td></td>
</tr>
<tr>
<td>In general I found the assignments to be a good learning tool</td>
<td>79.5</td>
</tr>
<tr>
<td>I found the video explanation of the solutions useful</td>
<td>50.3</td>
</tr>
<tr>
<td>I appreciated the email notifying me of my mark.</td>
<td>87.3</td>
</tr>
<tr>
<td><strong>MULTIMEDIA EXERCISES AND ONLINE TOOLS</strong></td>
<td></td>
</tr>
<tr>
<td>Multimedia exercises help make the subject interesting.</td>
<td>54.7</td>
</tr>
<tr>
<td>Multimedia exercises help me to understand the techniques.</td>
<td>53.6</td>
</tr>
<tr>
<td>Multimedia exercises help me see why statistics is relevant.</td>
<td>50.7</td>
</tr>
<tr>
<td>I found the online learning tool(s) (eg Using the normal distribution) helped me to understand the topic(s) better.</td>
<td>66.6</td>
</tr>
</tbody>
</table>

Notes: Survey was conducted in 2008, Semester 2. All statements required students to select their response from a five point scale, where: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree.
ECON1010 – Macroeconomics 1

First Semester 2008

The following comments relate to general student feedback and student mark results following course developments in Semester 1, 2008:

- Most students were very positive about the use of the DVD series, with many expressing genuine interest in economics. As a result an email was sent out to students with a list of readings they may enjoy in the future related to economics.

- The majority of students also continue to enjoy the feedback sessions.

- There has been no significant change in the failure rate for the course. Certain groups continue to excel while others tend to lag behind in outcomes.

- A survey was also conducted to determine student reaction to the feedback sessions and DVD series (264 respondents):
  - 68% found the feedback sessions to be extremely/very helpful
  - 55% found the DVD series extremely/very helpful in understanding the role and importance of economics in every-day life, (26% helpful and 17% little or no help).

First and Second Semester 2008

Since 2005, there has been a progressive increase in the GTS component of the CES for Macroeconomics, and the GTS has been consistently higher in Semester 2 (Table 3 and Figure 3). These results may suggest that fewer enrolments in Semester 2 facilitate an enhanced learning experience for students, especially in terms of satisfying the level of personalised feedback and individual attention required.

Furthermore, the increase in GTS since 2005 may suggest that there has been a considerable improvement in student satisfaction following the 2005 introduction of feedback forums and student question time after lectures. A student expectations survey was conducted in Semester 2, 2008 and found that students expect the most effective feedback to come from dialogue with academic staff, followed closely by feedback classes. Given these expectations, it is not surprising that an improvement has been seen following the 2005 initiatives. However, a GTS comparison does not necessarily provide a direct indication of how well initiatives have been received by students, so perhaps a more useful evaluation tool would be to conduct additional surveys specifically designed to capture feedback regarding particular initiatives.
Table 3 Course Experience Survey Results for ECON1010 Macroeconomics

<table>
<thead>
<tr>
<th>Year</th>
<th>Semester</th>
<th>Good Teaching Scale</th>
<th>Overall Satisfaction Index</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005, Semester 1</td>
<td>32.8</td>
<td>55.3</td>
<td></td>
<td>427</td>
</tr>
<tr>
<td>2005, Semester 2</td>
<td>41.2</td>
<td>51.0</td>
<td></td>
<td>162</td>
</tr>
<tr>
<td>2006, Semester 1</td>
<td>36.1</td>
<td>48.3</td>
<td></td>
<td>542</td>
</tr>
<tr>
<td>2006, Semester 2</td>
<td>48.8</td>
<td>51.6</td>
<td></td>
<td>97</td>
</tr>
<tr>
<td>2007, Semester 1</td>
<td>41.0</td>
<td>54.2</td>
<td></td>
<td>455</td>
</tr>
<tr>
<td>2007, Semester 2</td>
<td>47.0</td>
<td>63.4</td>
<td></td>
<td>160</td>
</tr>
<tr>
<td>2008, Semester 1</td>
<td>55.5</td>
<td>73.9</td>
<td></td>
<td>457</td>
</tr>
<tr>
<td>2008, Semester 2</td>
<td>60.5</td>
<td>71.6</td>
<td></td>
<td>351</td>
</tr>
</tbody>
</table>

Notes: N is the number of surveys completed by students in each semester. Where GTS and Overall Satisfaction Index scores from multiple classes were available, a weighted average is reported with the number of surveys completed in each class representing the class weights.

Figure 3 Good Teaching Scale scores for ECON1010 Macroeconomics and Initiatives Introduced between 2005 and 2008.

A represents the 2005 introduction of feedback forums with weekly practice tests and student question time after lectures. B represents the 2008, semester 1 initiatives, including the textbook change, the introduction of the Commanding Heights DVD series, the homework exercises in lecture notes, and the 10-15 minute lecture reviews. C represents the 2008, semester 2 initiatives, the progress emails and new optional assessment tasks (six online multiple choice tests, three in-class multiple choice tests and two assignments).
More recently, Semester 1, 2008 was the first instance where the GTS was higher compared to the score in Semester 2 of the previous year. Perhaps this rise from 2007 to 2008 of 18% and a further rise of 9% between Semester 1 and 2, 2008 is a result of the various course changes implemented in 2008 or a combined effect of the 2005 and 2008 initiatives. If so then further improvements in the future could continue to be seen.

ECON1020 – Prices and Markets

First Semester 2008

From a total of 303 responses to the Semester 1, 2008 CES, only one student commented that the lecture group was too large, two said the lecture theatre was too large and six said the demonstration lectures were too large – their preferred size was 25. Therefore, more than 97% of respondents made no comment on class sizes, which suggests there is no need to make changes to class sizes for Semester 2, 2008.

Two questions were added to the CES for Semester 1, 2008:

Question 22. “The practice tests and solutions provided useful revision for the semester tests.”

For the group with 219 respondents, 79% agreed.

For the group with 84 respondents, 78% agreed.

The average mark on Test 2 has been about 10.5 to 11.5 for the past few semesters and increased to 12 this semester (out of 20).

Question 23. “The test feedback (details on common errors provided on Blackboard) was helpful.”

For the group with 219 respondents, 68% agreed.

For the group with 84 respondents, 62% agreed.

These suggest that the work undertaken on the practice test and solutions has been worthwhile. Although the students have generally found the test feedback helpful, they have still given low scores for the questions on “helpful feedback on how I am going” (48%, 48%) and “time into commenting on my work” (32%, 30%). For the tests, as well as providing general feedback, students can make an appointment to review their test papers following Test 1 and again after Test 2, when they have the opportunity to review both test papers if they wish. However they seem reluctant and at times resistant to taking up this opportunity – some commented on the surveys that they would like to see their test papers without having to make an appointment – which with the large numbers is just not practical. Of the 658 students who sat Test 1, 51 papers were reviewed – 49 who passed and 2 who failed. Of the 636 students who sat Test 2, 52 papers were reviewed – 45 who passed and 7 who failed.
The overall failure rate decreased compared with the same time last year, but was slightly higher than two years ago. It is difficult to assess whether the changes made have had any influence on this outcome or whether it is due to the quality of the students.

Stage 4: Reflect

Based on the results experienced by each of the course Coordinators, plans have been put in place for further refinement of the initiatives trialled in 2008 as well ideas to be trialled in the future. Each course will be discussed as follows:

**MKTG1025 – Marketing Principles**

As a consequence of the feedback from both semesters in 2008, there are plans for continued trialling of the audience response system using mobile phones, as well as further development of the podcasts.

**ECON1030 – Business Statistics**

Since half of the GTS aggregate score is represented by questions relating to feedback, and is typically rated poorly by Business Statistics students, the plan for next year is to further improve the forms of feedback made available for students.

One proposed idea is to replace the four online Perdisco assignments with three compulsory in-class tests worth 5% each. Each test will consist of two or three questions that are based on questions from the textbook. Tests will be handed back to the students in the week following having been marked, providing sufficient and timely feedback. The general aim of this alternative form of assessment is to improve the student feedback experience which will hopefully lead to an improvement in student grades and pass rates. Given that the tests will be based on questions in the textbook, it is hoped that this initiative will also further cultivate self directed learning habits. Hopefully these improvements will be reflected in future GTS scores.

A number of other ideas are in the early stages of development, for example, running training sessions for staff and the expansion of the assistant tutor role. Funds for these initiatives have been provided for through the office of the DVC(Academic). Furthermore, strategies are being considered to identify “at risk” students by week 7 and scheduling a meeting with them regarding their studies with the view of addressing any problems.

**ECON1010 – Macroeconomics 1**

The changes undertaken in 2008 will continue forward for further assessment. Comparison of GTS scores across the 2008, Semester 2 classes provided inconclusive evidence to suggest that smaller lectures result in higher GTS scores since the large class held in Capitol Theatre obtained the highest GTS score and the smaller lecture classes had higher overall satisfaction index (OSI) scores. Therefore, a plan for next year is to further assess whether large class sizes influence a students learning experience and hence lead to poor satisfaction and low GTS scores. In an attempt to evaluate this, the same lecturer will teach both a large class in Capitol Theatre along with a class
in a smaller lecture theatre. Hence, controlling for differences in teaching style and comparing classes taught by the same lecturer should hopefully allow for a more direct GTS comparison and assessment of the effect of large class sizes on student satisfaction.

What was the impact on student feedback?

This is discussed in section 4.0.

Were there changes in student learning and experiences?

Yes, as discussed in the preceding sections.

How are the students being taught differently? Eg teaching strategies, structure & size of classes etc

Again, this has been discussed in the preceding sections.

What other impacts (including long term outcomes) were there?

Long term outcomes are yet to be fully recognised. However, the School is actively encouraging staff to undertake course development and providing support through the provision of teaching grants. These grants, which are by application, are also viewed as a precursor to applying for an LTIF grant.

Were there any tangible outcomes eg Grants, scholarship etc

An LTIF grant was received to support the development of the trial of the ‘audience response system’ and development of podcasts in MKTG1025 Marketing Principles. Further, the course coordinator, Raju Mulye, was recognised with a University Teaching Award, primarily as a result of his efforts with the course over the last few years.

8.6 Critical Success Factors

What were the contributors to success?

The contributing factors to the success of this project were as follows:

- Support from HOS and funding provided for ongoing development.
- Initiative shown by Course Coordinators and various course team members despite a very full workload.
- Support and assistance from other School staff members at various points in the project.
- The use of a research assistant in undertaking the quantitative analysis of the CES data.
– Support and encouragement from our project Facilitator, John Milton, and his assistance with ethics approvals, the LTIF application, facilitating the teaching team discussion forum and ongoing advice.

– Support from various areas within the University and the Business College, in particular Dr. Rae Subramaniam from the Academic Development Group(ADG) within the Business College for undertaking the task of conducting student focus groups and also Laurie Armstrong and the Survey Services Centre for the provision of CES data tables.

It was also commented that “A major contribution to the success of the project was the contribution of the Learning & Teaching Director, Kate Westberg in providing:

– the essential mediation between the ART project team and the University project team

– constructive communication with each of the Course Co-ordinators.

– advocacy for the team including in relation to the issues faced by courses.

– critical bridge between project team and Head of School.

– positive, opportunity-seeking outlook with support for local initiative.

All were important for the achievements of the team and course teams in the past two years - and will remain so.”

What were the impediments to success?

Impediments or challenges to the success of this project included:

– Workload commitments of the ART members and course team members.

– Facilities/IT issues which can hamper the best efforts of teaching staff (i.e. DLS problems experienced in Semester 1, 2008). These issues appear to be ongoing, but the increased attention and plans to address these issues are encouraging.

– Lack of student responsiveness and willingness to participate in focus groups, despite offering inducements of movie tickets, and irrespective of whether the groups were conducted in class time.

– The complexity or difficulties in using student feedback to direct course development, for example the ability of students to articulate what they want in a way in which we can respond (e.g. it was noted that despite students stating that they wanted more feedback, there was limited response to the opportunities provided for students to receive this feedback).
List separately – strengths and weaknesses of the Project

The strengths of the project included:

- The dedication and professionalism of staff.
- The opportunity to approach an issue as a team.
- The importance of the focus of the project.
- The diversity of initiatives explored and trialled.

The weaknesses of the project included:

- The student feedback data.

8.7 Other Issues, Challenges and Suggestions

What issues, challenges have been faced by the team members in this project?

In addition to the issues identified in the previous section, a number of concerns relating to facilities were raised with the larger ALTC project group. These concerns were identified from both student feedback as well as feedback from the teaching staff and related to issues that often impeded the learning experience. These issues were subject to discussion and action at a variety of forums.

Which issues and challenges remain?

Given the focus of the project on primarily large first year courses, it became increasingly apparent that transition issues have a significant impact on the student learning experience as well as the ability for staff to effectively facilitate learning. Students are not appropriately prepared to study as adult learners and partake in student centred learning. Greater consideration needs to be given at a University and College level as to how to best achieve this transition.

What suggestions for further improving impact on student feedback— at course team, program, discipline, School and university levels?

In order to improve student feedback, it needs to be collected in a meaningful way so that it is both reflective of the student experience as well as providing useful feedback for course development. Feedback from students to academics suggests that many students do not take the CES seriously and feel ‘oversurveyed’. Further, when an academic receives GTS scores from 2 classes (for the same course in the same semester with the same lecturer) and the results differ by 20 points, it is difficult to see the value of the instrument in terms of providing insight into potential course improvement.
8.8 Resources

What resources have you accessed and found useful? Eg journal articles, case studies etc

In undertaking this project, a number of resources were useful, and in some cases essential.

These have been commented on earlier in this report and can be summarised as follows:

- A facilitator from the Learning and Teaching unit. This person was particularly useful in the early stages of framing the project and was a valuable support throughout the project.

- Journal articles/working papers, particularly on large class teaching as well as audience response systems.

- CES data and additional data provided by the Survey Services Centre.

What external expertise have you enlisted or accessed? How useful and in what ways has this been beneficial to your ART project?

- Workshops with external parties, i.e. Carrick Award winner for large class innovation, Peter Wagstaff from Monash University and Professor Sally Kift from QUT, a Senior Carrick Fellow whose area of expertise is the first year experience. These speakers were useful in continuing the discussion on the challenges of both large classes and transition issues.

What other resources eg people, finance, internal university funding etc have been available?

Specialist research assistance with analysis and provision of data.

- Assistance from the College's ADG in recruiting and running student focus groups.

- Funding associated with the project as well as LTIF grant funding for the audience response system project in Marketing Principles.

Have you developed any resources that may be useful for others to achieve these outcomes? Describe or list or append.

This document will be made available on the School's internal network drive and the initiatives described may be of use to other staff members.

In addition the following Conference publications and Journal submissions have been made:

8.9 Sustainability and Transferability

Has this project achieved a sustainable change in practice to improving student feedback?

As ongoing course development is standard practice for the majority of Course Coordinators in our School, and certainly for the Common Core Course Coordinators, it is expected that the initiatives that were both ongoing and commenced during the life of this project will continue.

What is planned in the School to extend the impact of the project beyond this team?

Throughout this project, updates were communicated at General School Meetings. The outcomes of this project were presented at our 2008 School Conference held in December. As discussed, this report will be made available to the School staff and other interested parties. In addition, the team was invited to present the project at the Business College T&L seminar series in August. Many of the initiatives trialled in this project are certain to be of interest and relevance to other Course Coordinators both within and outside the Business College.

Have you observed changes/initiatives in your School, College or University wide that are attributed (directly or indirectly) as a result of your ART project?

Changes have occurred within the School in terms of the overall support and recognition given to the Common Core courses. An indirect result of the project has been for the School to establish small teaching grants available to course coordinators in other courses who would like support in research, developing or trialling initiatives.

Are the outcomes of this project transferable to other parts of RMIT and / or the higher education sector?

Most of the initiatives undertaken by the Common Core course coordinators would have relevance to other courses and disciplines both within RMIT as well as other Universities.

8.10 Leadership Reflections

Questions for ART (as a whole team):

1. What has your participation in this project enabled you to achieve in regard to improving student feedback?
   - The opportunity to run a whole lot of things differently in the course – new projects & assignments.
   - It has enabled lecturers to trial new technologies in a risk free environment – allowing any problems experienced to be dealt with as part of the project trial, and refinements to be made.

2. What are the key factors that enabled you to achieve this?
   - Time and assistance in developing and running new initiatives with students.
   - The recognition that improving student feedback is a shared responsibility – that it is the things that support lecturers like the technology, and also the facilities.

3. What challenges did you face in achieving this?

   Issues related to feedback:
   - Lack of understanding by students regarding the feedback given by lecturers – how to access and use it effectively, and for them to also take some responsibility in responding.
   - Realising that students expectations often don’t align with what is delivered – they ask for things and then don’t take advantage of opportunities created.
   - In giving feedback often students rate a course by its fairness rather than evaluating the actual teaching.
   - That cohorts of students make a difference, identical courses taught to different groups can get very different feedback.
   - Students can give poor feedback to courses that they don’t see the relevance of – e.g. courses outside of their specialist area.
   - Recognition that in a mixed discipline class, there are difficulties in making courses relevant to each student.
Issues related to service provision:

– Lecturers can’t make improvements to feedback if the facilities and technology are unreliable.

– Importance of quick responses from service providers when problems arise – having this happening now is a significant help to lecturers.

Issues related to transition

– Encouraging students to become adult learners – self actualised students is essential. This is a particular problem for first year students.

4. How has your participation in this project increased your knowledge about how to enhance student learning and improve learning and teaching practice?

– The project and initiatives trialled have provided valuable insights.

5. Do you see what you have done in this project as a form of leadership? Please explain.

– It has been recognised by the school that we are being proactive in this area and that improvements are being made.

6. How will the knowledge and experience you gained affect your future practice in enhancing student learning and learning and teaching practice across the university?

– Course developments will continue based on building on the experience from this project.

7. What would you like to see happen across RMIT as a result of the knowledge and skills you have learnt and the improvements you have made to the student learning experience?

– The project has identified the need to develop a program to assist students in developing the skills to become independent adult learners as a part of a broader transition program for first year students.

– Workplans for staff should be designed to enable all staff members to gain experience with all levels of students. This is particularly important as feedback is being seen as an important factor linked to promotion.

8. What future contribution, role, would you like to have in the ongoing process of improving the student experience?

– Course development is an ongoing endeavour and critical as technologies, student expectation and discipline specific content evolves.
Additional questions for ART Leaders

9. **In what ways did members of your teams exercise leadership (this is intended as an objective question rather than subjective it is not intended to mention individual names)?**

Given the nature of our project, that is the focus was on specific courses, individual course coordinators led the direction of change and improvement for their courses. In addition, the course coordinators consulted, communicated and led their team members to enact this change. Finally, individual course coordinators were able to encourage, support and provide input to the others.

10. **In what ways can leadership within teams, such as your ART, be supported and enhanced?**

Leadership can be supported through the provision of resources in terms of time and funds to trial initiatives or provide research assistance. It is also important to provide acknowledgement for the contribution that these teams can make.

11. **How can leaders of ARTs be better supported and enhanced?**

As above. In addition, there needs to be acknowledgement within the University promotion system for the value and the contribution of these roles.

**8.11 Evaluation of the ART Project**

As has been outlined in this report, the ART project has made a positive contribution to the School as well as the specific courses that served as the focus. The project has elevated the awareness of issues relating to student feedback, has fostered an environment of teamwork and has resulted in an improved student experience.
8.12 Recommendations

School

The School should continue to encourage, support and reward ongoing improvement of its courses and the student experience.

College / University wide:

The College and University should support the School(s) in the above endeavour as well as ensuring that the appropriate conditions are in place to facilitate the creation of an effective teaching and learning environment and experience. These conditions relate to the provision of infrastructure (such as systems, facilities and equipment) as well as the selection of capable and motivated students, and preparing them appropriately to embark upon student-centred adult learning.

8.13 References


9. Case Study Two: 
DSC: Property, Construction & Project Management ART Report

Developing Multi-level Leadership in the Use of Student Feedback to Enhance Student Learning and Teaching Practice with a Focus on Learning and Teaching Facilities

School of Property, Construction & Project Management  
College of Design and Social Context

9.1 ART Participants

ART Leaders

Ian McBean  Program Director, Project Management
Geoff Outhred  First Year Coordinator

ART Members:

Professor Ron Wakefield  Head of School
Assoc. Prof Tony Mills  Associate Professor
Dr Guillermo Aranda-Mena  Senior Lecturer
Mr Rick Lombardo  Senior Lecturer
Mr Leo Di Georgio  Lecturer

ART Facilitator

Ms Kylie Budge  Design and Social Context
9.2 Acknowledgements

Firstly we would like to acknowledge the ALTC for supporting our portion of the project and providing impetus to Learning and teaching within the School of Property, Construction and Project Management. In addition we acknowledge the support and coordinating role of RMIT’s Learning and Teaching Unit.

Photographer: Ian McBean

Geoff Outhred, DSC ART Leader

Ian McBean, DSC ART Leader

Prof. Ron Wakefield, Head of School
9.3 Background and Project Focus

The overall focus of the ART project is on improving student feedback by improving the School's learning facilities. Over the past several years, the School has expanded by the inclusion of the two additional existing programs migrated from the Business College and creation of a new undergraduate program. The incorporation of a common first year across the four programs has had the consequence of increasing the size of classes from 60 – 70 to in excess of 200 students. Two of the existing learning spaces have not been renovated since Building 8 was constructed in the early 1990s. These spaces are badly in need of attention. As the project evolved, opportunities arose to address other matters relating to the students learning experiences.

What courses were the subject of this project? Give total student numbers and breakdown how it was taught at the start of the project. Include any other relevant information about the profile of the students and the context of delivery.

BUIL1154 –85 students. Previously the course was taught as conventional lectures with group assignments and an examination. Students are final year construction management students.

BUIL1107 – 212 students. The previous course was taught via three one and one half hour lectures by an internal staff member following which the students undertook exercises in a semi-supervised way. This is a common CAD course across the four undergraduate programs offered by the School for students commencing their studies.

What were the central themes or issues being addressed in the project?

The method used involved focus group/s of students, with questions developed from the following themes:

1. Preferred learning style – individual or group, role play exercises, experiential learning, work integrated learning and reflective journal/diary.

2. The types of facilities that promote good learning and teaching practices in the areas of information technology and communication with regard to services, infrastructure and access.

3. The types of facilities that promote good learning and teaching practices in the areas of learning and teaching spaces with regard to large lecture theatres, seminar rooms, tutorial rooms.

4. Learning and teaching styles with regard to delivery to large groups, small groups, tutorials, workshops. The use of project/problem-based learning, model building, drawing, practical exercises, site visits, field trips and land surveying exercises.

5. Student/staff interaction with regard to accessibility, emails, DLS discussion board.

6. Feedback types to enhance learning including online tests, written or verbal.
How do these relate to student feedback?

As the focus of the Team’s project was on the learning and teaching facilities, the overall objective of the themes is to improve students’ learning experiences by providing more appropriate facilities and which could result in more positive feedback.

9.4 Actions

To gain an understanding of the current best practice in the provision of education facilities, a review of the literature was undertaken. Several means were used to obtain data from students and staff about the learning facilities in the School. The Head of School conducted some informal discussions with groups of students to obtain their thoughts about learning and teaching issues and the facilities in which they learn. Focus groups of students and staff were then conducted to explore these matters further. A survey was also conducted of the learning spaces currently used by the School.

How did the team structure itself, how has this changed during the project?

The ALTC ART Team was drawn from the School’s Learning and Teaching Committee (LTC). The team comprised a mix of experienced teaching staff and some early career academics. The ART project provided a particular focus for the School’s LTC. During the planning stages of the project in 2007 two Facilitators shared the role, with one Facilitator being retained during implementation. The Head of School originally lead the ART but this role was successfully devolved to two staff who shared responsibility for the role of ART leader thus further developing their leadership skills.

What did course teams do to improve student feedback and why?

Following the data gathering from students, staff and the literature, consideration was given as to how changes could be made to the School’s facilities to improve the student learning experience and consequent feedback. Coincidentally, over this time it appeared that the School was soon to be permitted to expand from a small area of Level 8 Building 8 to take over the whole floor. We were now in a position to plan some new learning spaces. The work done for the ART project provided information about how the new spaces should be designed.

What changes occurred in each course? – detail changes before and after

1154 - Assessment changed from exam and assignment to a case study based assignment plus a reflective journal. Entire course material was based on a case study, with theory to support the study. Students made a weekly entry into their reflective journals and submitted the complete document at the end of the semester, along with their report and a verbal presentation for the case study. Reflective journals included individual student feedback for classes and encouraged them to reflect on the material presented.

1107 – The intention of this course is to provide students with an introduction to computer aided drawing (CAD). The course is taken by commencing students across all undergraduate programs offered by the School. In previous years, the facilities provided were of inferior quality and this appeared to impact
student learning. The lecturer running the course sought alternative higher quality spaces to use. In the investigation, he observed how TAFE programs approached similar exercises. This lead to the discovery of an excellent purpose built and fully equipped facility complete with tutors. There was sufficient spare capacity to accommodate our higher education students. The lecturer sought and was successful in gaining Dual Sector LTIF funding for a trial using TAFE facilities. Instead of an internal CAD teaching series of three 2 – hour lectures followed by individual work in the CAD laboratories, the Dual Sector LTIF initiative was used and CAD teaching was outsourced to the School of Design in TAFE. The School of Design conducted the CAD training in six 4 – hour workshops, held at the TAFE Brunswick Campus CAD training rooms. Each workshop contained a maximum of 19 students, so the 220 students were divided into 12 workshop groups.

Outline the stages of action taken and how it was reflected in the action research cycle process (Plan, Act, Observe, Reflect)

1154 – An external industry person, a past graduate of the Program, was invited by the Course Coordinator to conduct the case study lectures. RMIT Property Services Group were invited to contribute to lectures, as the case study is for RMIT. Several meetings were held for the course contributors, to plan the course, assessment, and course delivery. In the first lecture students were briefed regarding the reflective journals, the case study, and how they could provide feedback through undertaking this work. The Course Team met briefly after each lecture and reviewed the success and progress of the course. Students were challenged in each lecture to provide verbal feedback, as well as making an entry in their reflective journal. At the end of the semester, after assessment was completed, and feedback given to the students regarding their reports, reflective journals and presentations, the Course Team met for a debriefing and evaluation session.

1107 – Several meetings were held for the Course design team, to set up the provision of the TAFE CAD teaching component of the course. The CAD workshops were conducted at the TAFE Brunswick campus, for six out of the total twelve weeks of Semester One. Students from past years of CAD teaching were consulted regarding how they felt it could be improved, and new students for BUIL1107 did an expectations survey in Week One. Students went from preparing CAD drawings to undertaking conventional hard-copy drawings throughout the semester, to experience both modes. At the end of the semester students did a follow-up to the expectations survey, to give their experiences and to confirm or otherwise whether their expectations were met. The Course Team reviewed the students’ results for both CAD and traditional drawings, and also reviewed the design of the course at a final meeting. It was decided at this meeting to provide some further specialist 3D CAD training in Semester 2 to those students interested. This was a result of student feedback stating they would like to do more CAD in the future.

In addition, several items in some of the School’s learning spaces were identified as badly needing changing or upgrading. This involved providing new chairs and tablets in two learning spaces and having “SmartBoard” technology installed in the same spaces. Internal School funding was used for these purposes.

How have students been involved in the project?

Students were involved via focus groups, reflective journal submissions and informal discussions.
9.5 Outcomes

What outcomes did the project achieve? Expected and unexpected?

Upgrading of School learning spaces has been generally well accepted by students. Despite some ongoing difficulties with the supporting technology for the “SmartBoards” students have reacted positively to their installation and use. Lecturers had a similar positive reaction when the technology issues were resolved. Lecturers are developing new and different ways of using the facility to enhance student learning. For example, in a tutorial a powerpoint presentation is accompanied by relevant sections from certain Australian Standards (accessed from the RMIT Library). There is a lot of potential to develop new ways of delivery associated with the technology and these will be facilitated by the School LTC. The students were very interested in the operation of the ‘SmartBoards’. It is a little early to determine any changes to student learning from the new provisions. The new seating and tablets have also received positive responses from students. Students who experienced the previous seating were informally asked their opinion of the new and all responded positively. An unexpected outcome from the new furniture was comments from a number of students that it would be useful to provide facilities for student laptop computers in subsequent upgrades. The combination of the two upgrade provisions has been reflected in increases of CES scores for Question 14 relating to Facilities for several courses that operate in the upgraded rooms.

What was the impact on student feedback?

**Expected** 1154 – Student feedback from the reflective journals reinforced the scores and comments obtained from the CES survey. Student attendance was vastly improved compared to previous years (78 out of 85 responded to the CES).

**Unexpected** 1154 – The standard of the presentations was far higher than expected for most groups. The CES contained many more comments than are usually provided, and they were all extremely positive, well stated and less reactionary than usual. The score for overall satisfaction was 78 – surprisingly high for an experimental application of a course, considering the high number of responses from a diverse group of students. Quite a few students established professional links (and a source of employment) with the visiting industry speakers.

**Expected** 1107 – Students were able to develop CAD skills to a far higher level than for previous years. Responses to the Expectations Survey (for all Semester One courses) indicated that students felt that it was important for them to attend lectures and activities, and they put a high priority on working with each other. The large majority of students thought the Semester was “Fair” to “Good”, and also agreed that university learning is entirely different from secondary school. Other student feedback comments were full of praise for the standard of teaching provided to them by the CAD teachers. Most students agreed that the traditional drawing skills were necessary to learn as well as CAD skills, and that they supplement each other.
Unexpected 1107 – There was a large variation in student comments regarding their reactions to CAD. Some loved using it, and some loathed it. Many students requested that more CAD be included in later courses. Most students produced high-quality CAD drawings.

Were there changes in student learning and experiences?

Students that enjoyed and saw the worth in the “hands-on” CAD exercise had better learning outcomes.

How are the students being taught differently? Eg teaching strategies, structure & size of classes etc

1154 – Despite the conventional lecture mode for the classes, there was far more two-way interaction in each class, due to the demands of the reflective journal and also the nature of the presentations – mostly from external industry presenters combined with the course coordinator and primary lecturer.

1107 - Each CAD workshop had a maximum of 19 students, with one teacher. Previously CAD was taught in an auditorium with all 210 students at once.

What other impacts (including long term outcomes) were there?

A further long term impact of the ART project is the consolidation and embedding of the LTC as a vehicle within the School to promote and share a variety of learning and teaching methods and to generally promote sound learning and teaching practice.

Were there any tangible outcomes eg Grants, scholarship etc

- 1107 – Each student who completed the CAD component received an internationally recognised AUTOCAD certificate as well as a mark that was included in their overall assessment. This is a new initiative and has been favourably accepted by students.

- A further outcome from the ART focus on learning and teaching facilities has resulted in the Head of School chairing the University Learning Space Advisory Group (L-SAG).

- Several related LTIF grants awarded by the University.

- Research papers reporting on parts of the ART process are in progress for publication.
9.6 Critical Success Factors

What were the contributors to success?

Factors that contributed to success of the project are as follows:

- Commitment of staff to improving the School’s learning and teaching.
- Availability of financial resources to undertake School upgrading of selected learning spaces in the School.
- The assistance from sources external to the School, VET Sector, and industry personnel.

What were the impediments to success?

- Lack of willingness on the part of students to provide considered feedback.
- The University’s facility management systems.

List separately – strengths and weaknesses of the Project

Strengths

- Availability of internal School funding to upgrade learning spaces.
- The consolidation of the School LTC (Learning and Teaching Commitee).

Weaknesses

- Lack of involvement in data gathering by a broad range of students.
- The University’s poor maintenance record of facilities.

9.7 Other Issues, Challenges and Suggestions

What issues, challenges have been faced by the team members in this project?

While the time allocated to the project was generous, all team members undertake busy teaching loads, some of which is offshore, as well as in some cases, considerable administration duties. The strong commitment to learning and teaching investigation was tempered by the need to execute such activities. A further issue was poor student involvement (particularly at undergraduate level) in focus groups and general data gathering about their learning experiences.
Which issues and challenges remain?

An ongoing issue is the reluctance of members of the student body to take on leadership roles. Mechanisms are provided by the School for this to happen, but we remain unsuccessful in achieving such leadership.

What suggestions for further improving impact on student feedback – at course team, program, discipline, School and university levels?

Given that RMIT is a dual sector university, further improvements could be gained by greater engagement in dual sector activities for suitable courses and programs. Our experience to date has been that the VET sector of the University has many excellent facilities and VET teachers who are keen to have an involvement with higher education students.

9.8 Resources

What resources have you accessed and found useful? Eg journal articles, case studies etc

A review of the literature was undertaken to extract some of the best practices in higher education facilities around the world. Some of these introduced the team to different ways of delivering material to students in a manner that may result in higher levels of student satisfaction.

What external expertise have you enlisted or accessed? How useful and in what ways has this been beneficial to your ART project?

Some of the University’s facilities personnel and an outside consultant on the topic of learning and teaching spaces.

What other resources eg people, finance, internal university funding etc have been available?

Further resources came from LTIF funding in support of dual-sector learning.

Have you developed any resources that may be useful for others to achieve these outcomes? Describe or list or append.

Use of reflective journals as a means of encouraging student reflection and obtaining specific feedback about the relevant course.
9.9 Sustainability and Transferability

Has this project achieved a sustainable change in practice to improving student feedback?

The computer aided drafting dual-sector initiative has been adopted by the School for the relevant course. The reflective journal will be used again in 2009 and other staff with appropriate courses will be encouraged to try this initiative in courses they teach.

What is planned in the School to extend the impact of the project beyond this team?

The project outcomes will be further communicated to staff in the School and where appropriate mentoring will be available, particularly to early career teaching staff.

ART Project Result Dissemination within the School

Progressive results from the project have been presented at various meetings of the School's Learning and Teaching committee. Further more detailed dissemination is planned during one of the up-coming research seminars periodically held in the School for all staff.

Have you observed changes/initiatives in your School, Portfolio or University wide that are attributed (directly or indirectly) as a result of your ART project?

Teaching staff within the School have increased their involvement in sharing ideas about new and better learning and teaching practices.

Are the outcomes of this project transferable to other parts of RMIT and/or the higher education sector?

Conference Paper Planned

The results of the ART Project will be presented in a paper at the Royal Institute of Chartered Surveyors at their annual technology conference COBRA in South Africa in September 2009.
9.10 Leadership Reflections

Questions for ART (as a whole team):

1. What has your participation in this project enabled you to achieve in regard to improving student feedback?

Participation in the project has provided a focus on feedback beyond what has been undertaken in the past. Ways of addressing issues identified by students in the past formed the basis for new initiatives. While our investigation was focussed on the influence of facilities on student feedback and learning, other issues such as the use of technology and alternative means of obtaining feedback from students also became evident. The net results of the ART project were an increase in the CES scores for the applicable courses.

2. What are the key factors that enabled you to achieve this?

The key factors that contributed to the results obtained were the hard work of the team to determine alternative solutions, availability of internal School resources to undertake minor upgrading of some facilities, the willing co-operation of staff in the VET sector and the framework of the ART project to concentrate our efforts.

3. What challenges did you face in achieving this?

One of the major challenges we faced was inducing students to participate in feedback focus groups, both formal and informal. Students who did attend thought generally that they were over surveyed. A further challenge was uncertain decisions with regard to university space planning.

4. How has your participation in this project increased your knowledge about how to enhance student learning and improve learning and teaching practice?

Our knowledge of student learning has positively benefited us in two ways. Firstly the work we have done ourselves in the ART project has provided us with a strong focus on student learning as opposed to a major focus on what we were teaching the students. Secondly we have benefited from hearing from the other two ART projects as to how they solved their particular issues.

5. Do you see what you have done in this project as a form of leadership? Please explain.

Engagement with the School Learning and Teaching Committee and subsequently the ART project was voluntary by all team members, in particular the two senior members. Clearly this is part of the informal leadership that takes place in the School.
6. **How will the knowledge and experience you gained affect your future practice in enhancing student learning and learning and teaching practice across the university?**

The knowledge and experience gained in the course of the ART project has encouraged team members to think more deeply about their learning and teaching practice and given them the confidence to try new ideas to improve student learning.

7. **What would you like to see happen across RMIT as a result of the knowledge and skills you have learnt and the improvements you have made to the student learning experience?**

A central, web-based repository of student learning improvement tips and traps would be useful. Such a site would need managing and possibly the Learning and Teaching Committee in each College could seek contributions and promote use of the facility.

8. **What future contribution, role, would you like to have in the ongoing process of improving the student experience?**

The ART leaders acknowledge the importance of student learning within the University and consequently are keen to have an ongoing role in promoting student learning within the School and beyond given the opportunity. While it is strongly acknowledged that enhancing student learning is an integral part of a lecturer's job, where this does happen, it is often done under the pressure of preparing material for a coming semester and often effective innovations are not communicated to the wider lecturing community. Projects such as the ART serve firstly as a spur to act and secondly as a means of disseminating the useful results.

**Additional Questions for ART Leaders**

9. **In what ways did members of your teams exercise leadership (this is intended as an objective question rather than subjective it is not intended to mention individual names)?**

Less experienced members of the ART team took the initiative and undertook necessary survey work unasked. Other members provided literature relevant to the project. Willing participation in discussion of issues and contribution of ideas were a form of leadership.

10. **In what ways can leadership within teams, such as your ART, be supported and enhanced?**

Support may be provided by giving time allowance by reduction in teaching load or having the ability to “buy” marking assistance where possible. Support in areas of administration may also be of assistance.

11. **How can leaders of ARTs be better supported?**

As in point 2 above and also recognition within the School of the effort made in this and subsequent projects.
9.11 Evaluation of the ART Project

The results flowing from the ART project must be seen against a background of continuous improvement in learning and teaching to which the School aspires. The distributed leadership component was successful with respect to a number of staff members. This factor was not successful with regard to students. The students consulted had no leadership aspiration with regard to learning within the School and exhibited a general disinterest of all such matters. The student feedback component of the ART project was successful with regard to improvement of facilities and of a more general nature. Other worked planned could not be undertaken in full due to the non availability of suitable learning spaces. The increase in CES of the relevant course bore testament to this conclusion. Some of the wider benefits of the ART project are displayed in the firm establishment of the Learning and Teaching Committee and the work it will do in the future.

9.12 Recommendations

School

The overall success of the ART project indicates that such small-scale projects with very specific aims are a very useful mechanism for future learning and teaching developments in the School. Small projects could be put forward by the Learning and Teaching Committee for particular small teams of staff to undertake. Alternatively teaching staff should be encouraged to put forward their own ideas for investigation and development if warranted.

College / University wide:

Clearly, these types of school based initiatives are applicable to other areas within RMIT.

9.13 Selected References


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10. Case Study Three:
SET: Mathematics & Geospatial Sciences
ART Report

Building Leadership Capacity in the Use of Student Feedback to Enhance Student Learning and Teaching Practices in Large Classes

School of Mathematical and Geospatial Sciences
College of Science, Engineering and Technology

10.1 ART Participants

ART Leader
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10.2 Acknowledgements:

The ART group would like to thank ALTC for providing this grant. The group also would like to sincerely thank the previous ART leader A/Prof Gary Fitzgerald, and members Dr Dan Kildea and Dr Max Hunter and Art Facilitator Mrs Judith Lyons who had a huge impact on the successful completion of the project prior to their departure from RMIT. We would also like to thank Prof Jim Barber, Assoc Prof Sandra Jones, Project Officer Ms Brenda Novak, staff from RMIT, IT and Property Services, for their outstanding work during the completion of this project.
10.3 Background and Project Focus

What courses were the subject of this project? Give total student numbers and breakdown how it was taught at the start of the project. Include any other relevant information about the profile of the students and the context of delivery.

The following courses which have large enrolments were considered:

MATH2123

This course was taught to 220 first year students in the first semester. The students in this course are from 5-6 different disciplines with varying TER scores depending on the discipline. This introduces considerable variation in their mathematical abilities. The course is taught via the following approaches: face-to-face lectures, mathematics practice classes and Statistics computer labs. The teaching materials for the course are posted on the Learning Hub via blackboard so that during lectures students have time to listen and then write the solutions to the problems listed in their weekly lecture notes, practice sheet or lab assignments.

The course material is composed of 50% Mathematics and 50% Statistics. At the beginning of the project the mathematics component was assessed only through a number of weblearn tests where students could repeat each weblearn test to a maximum of 10 times until they achieved a score of 80%. Only then, are they permitted to attempt the next weblearn test. The statistics component was assessed through a: 70% final exam (open book), a 10% computer assignment that would require the students to answer a set of questions that covered all topics in the course by using the Statistical computer package, MINITAB. For each question on the computer assignment, students were asked to generate random data enabling each student to work with a different data set to minimize plagiarism. They had one weblearn test weighted 10%, where students could do similar online practice quizzes as many times that they wanted for practice but could only attempt the test once. The final 10% was allocated to being up-to-date with their designated weekly problems from their text book. These problems were ticked off (but not marked) in their working note book every other week. To achieve the maximum 10% students were required to have done the assigned problems every week. Doing so would enable them to have extensive practice on topics that were covered during that week.

MATH2114

This is a course taught to 220 first year students in the second semester. The students in this course are from one discipline with high TER scores, therefore their mathematical ability is almost uniform. The course is taught via the following approaches: face-to-face lectures, mathematics practice classes and statistics computer labs. The teaching materials for the course are posted on the Learning Hub via Blackboard. This group are taught in a lecture venue where there are no writing facilities, therefore, the solutions to lecture notes problems are also posted on the Learning Hub via Blackboard which means during lectures students have time to listen more and write very little.
The course material is composed of 50% Mathematics and 50% Statistics. At the beginning of the project; the mathematics component was assessed only through a number of problem sheets handed out to students and they would go through them with their tutors during practice classes in a much smaller group. For the mathematics component they had 20% for assessments and 80% for the final exam. The statistics component was assessed through a 70% final exam (open book), and a 10% computer assignment (due on the final week of the semester) that would require the students to answer a set of questions that covered all topics in the course by using the statistical computer package, MINITAB. For each question on the computer assignment, students were asked to generate random data enabling each student to work with a different data set to minimize plagiarism. They had one weblearn test weighted 10%, where students could do similar online practice quizzes as many times that they wanted for practice, but could only attempt the test once. The final 10% was allocated to being up-to-date with their designated weekly problems from their text book. These problems were ticked off (but not marked) in their working note book every other week. To achieve the maximum 10% students were required to have done the assigned problems every week. Doing so would enable them to have extensive practice on topics that were covered during that week.

MATH1277

This is a service course taught to 90 first year students in the second semester on both the City and Bundoora campuses and is a core component of their degree. It is a continuation of the first semester service course, Math1275. Although the students in this course are from one discipline, there is a large variation in their mathematical abilities, typically with the Bundoora-based students having a poorer skill set than their City-based colleagues. This course aims to equip these students with the statistical techniques required to understand and undertake research in their chosen field. The course is taught via face-to-face lectures and computer lab exercises. The teaching materials for the course are posted on the Learning Hub via Blackboard. The lectures in this course are presented more like an extended tutorial than a traditional lecture owing to the smaller group sizes and facilities used.

At the beginning of the project, in this course the assessment comprised six computer lab exercises totalling 10%, two 20% multiple choice topic tests and a 50% multiple choice final exam. The students were required to use both MINITAB and SPSS to complete their lab exercises which were ticked off once completed. The first topic test (conducted mid-semester) assessed material covered in the first 6 weeks of teaching and the first three computer lab exercises. Students were permitted one A4 double-sided “cheat sheet” which they were encouraged to construct on their own. The second topic test (conducted week 11) assessed material covered following the first topic test and the last three computer lab exercises, again with a single A4 double-sided “cheat sheet”. The final exam, covering all topics and lab exercises, allows for students to utilise their two “cheat sheets” to assist them.
What were the central themes or issues being addressed in the project?

- Our focus was on improving our teaching and assessment practices for large service courses using student feedback;
- Analyse and identify the key issues arising from student feedback on large classes, assessment and good teaching strategies;
- Develop learning and teaching interventions to improve practice and student learning experiences and outcomes;
- Evaluate the effectiveness of the student feedback evaluation tool in obtaining service teaching data;
- Critically analyse success factors for and barriers to effective leadership practices and policies at a broader level of academic work;
- Contribute to RMIT implementing a leadership culture that enables informed approaches to using student feedback, development of personal perspectives and organizational change;

How do these relate to student feedback?

The changes were all based on the student's comments in their feedback and their comments received through student's consultation meetings in their home departments. The aim was to deliver more student centred courses by incorporating the most effective ways of teaching, assessment and feedback into our teaching practices by using student's feedback as well as successful practices that were adopted by other members in the group.

10.4 Actions

How did the team structure itself, how has this changed during the project?

Staff were selected by the Head of School. Staff who are involved in this project are either teaching large classes or co-coordinating teaching of large courses. However, the team had to reconfigure as a research group due to a change of membership and leadership of the group brought about by massive staff redundancies in the school. The new team members went through a self leadership process – concentrated on self teaching practice and on taking up academic leadership roles within the school. They needed to further work on what leadership capacity building activities are required by all members who have acquired new academic roles in the second semester especially those who have taken up program, discipline and course coordination/leadership roles. Our facilitator and our original ART leader left during the first year.
What did course teams do to improve student feedback and why?

- We used a sample of 700 student feedback surveys (from 2006) to summarize and classify their written comments (qualitative data).
- We have shared what works well and what does not work well in individual teaching and assessment practices in large classes.
- We have examined teaching practices from the literature and other institutions.
- We have examined student feedback evaluation tools from other universities in Melbourne (RMIT tool is comparable but best feature was from Monash: they have worded the levels vs. mark out of 10 rather than satisfy, not satisfy).
- Members implemented improvements to teaching practices that worked well and managed to improve the average CES score in first semester of 2007 by 12% when compared with 2006.
- The outcome of the analysis was presented to all staff at a school-wide meeting.

What changes occurred in each course? – detail changes before and after MATH2123

The math component stayed unchanged but the stats component changed to 50% final exam, 30% web learn tests (one test every 3 weeks starting from week 4) and 20% on 10 weekly problems and 10 Lab assessments (2 marks per week for 10 weeks starting from week 2). Their weekly problems and lab assessments were marked and return to them. We also removed the quiz attempts and replaced it with 10 attempts on each test. This was requested through their feedback comments as well as in their student’s consultation meeting in their home departments. However the pass rate on the weblearn tests were pushed up to 80% which required them to have more attempts till they completely understood the material. We also added another 250 questions to the question bank bringing the total number of questions to 500. Therefore in summary the changes were:

- Increase the number of online assessments which produced instant feedback.
- Allow students to repeat the test till they achieve 80% passing mark.
- Readdress the areas where students had difficulties.
- Staff invested a lot of time in commenting on students’ work using email, online and face to face (during lecture) feedback.
- Reward extra marks: for an outstanding assignment or a good answer on the questions that are asked during the lecture.
MATH2114

Both math and stats components changed to 60% exam and 40% assessments. The stats component changed to 60% final exam, 30% weblearn tests (one test every 3 weeks starting from week 4) and 10% on 10 weekly problems and 10 Lab assessments (1 mark per week for 10 weeks starting from week 2). Their weekly problems and lab assessments were marked and returned to them. We also removed the quiz attempts and replaced it with 10 attempts on each test. This was requested through their feedback comments as well as in their student’s consultation meeting in their home departments. However the pass rate on the weblearn tests were pushed up to 80% which required them to have more attempts till they completely understood the material. We also added another 250 questions to the question bank bringing the total number of questions to 500.

We also added a 10% optional assignment “to design” a practical problem in their respective field which can be solved using topics discussed in the course. It was also emphasized that they must use real data from their field to design the problem. More than 30 students took up the challenge. Some of the projects were very well-designed and very interesting. They were asked to use real examples and real data from their own discipline. The feedback was positive in that they could feel the importance of the course and the reason for having it as a compulsory course in their discipline.

A few staff tried to use more online assessment to improve the feedback issues. The analysis clearly shows that for some of our courses the score on the CES feedback has improved.

Other staff in the school were informed about the analysis and the good practices through staff meetings at different times of the year and were encouraged to adopt the positive practices that were proved successful.

MATH1277

Detailed analysis of the students’ performance on the Math1275 final exam identified several factors that appeared to affect the student performance, including the placement of the correct answer, the wording of the question (positive or negative style) and the number of available responses. The first topic test was redesigned to attempt to counter these affects with a reasonably high degree of success. Students were provided with detailed verbal feedback on the test and were invited to discuss their understanding of the questions and available responses. Information gained through this process was used in designing both the second topic test and final exam in an effort to obtain a more accurate measure of the student’s abilities.

The computer lab exercises were also refined, particularly for the Bundoora campus students. The exercises were collected, marked and returned with detailed comments to assist in future performance. The sixth lab session was altered to become a collective revision of all previous exercises and topics. These lab exercises will be further refined next year and become optional exercises with the 10% assessment component being assigned to two small computer projects. These two projects, based on research literature from their discipline, will contextualise and summarise the skills learnt from the exercises and lectures and allow for greater flexibility in facilitating student learning.
Utilising the Math1275 results for the Bundoora campus students and their performance on the first topic test, it was observed that there was a high correlation between their two results. This information was used to predict the student’s final performance in the course and identify those students at risk of failing. Interventions were offered to these students and successfully applied where taken up by the student.

Outline the stages of action taken and how it was reflected in the action research cycle process (Plan, Act, Observe, Reflect)

Members implemented the improvements to teaching practices that worked well and managed to improve the average good teaching score in first semester of 2007 by 10%. In summary we restructured our courses to be more student centred by incorporating their written comments into the delivery of our courses. Because some of the changes were based on their comments, we need to reassess their comments in 2008 and see if the changes were received well by the new group.

How have students been involved in the project?

At the start of the new semester in 2008, students were informed about the changes and the fact that these changes had occurred based on the previous students cohort feedback. The aim was to show them that their constructive comments are taken into account in order to improve the teaching practice at RMIT. Two students from service courses who had done two of the courses (in the analysis) were invited to talk to their classmates and then present their view in the first Plenary session in 2008. Their view was received very warmly by other participants who were mainly Heads of Schools and Course Co-ordinators at RMIT.

10.5 Outcomes

What outcomes did the project achieve? Expected and unexpected?

- Students do not recognize their responsibilities in the learning process.
- Students want very well organized lecture notes and continuous assessment (probably on a weekly basis) and feedback (preferably individual) throughout the term.
- Each lecture should begin with a review of the material covered in the previous lecture and an indication of what will be covered next.
- Students prefer to have multiple attempts at online tests rather than practice with online quizzes and then have only one attempt at the tests (gives them confidence when they do the test and provides a more effective learning environment).
Lecture notes should be placed online so that students can focus on the material being presented in class. The amount of online material should not be excessive.

Students appreciated the opportunity to complete an optional assignment worth an additional 5-10 marks (due towards the end of term) on “designing” a project from their own discipline (Civil, Environment, Food Science) that addresses the application of the topics that were covered in their course using real data from their discipline.

Student performance on multiple choice assessment tasks is highly predictable and can be positively or negatively influenced by the number of the responses, style of question wording and placement of the correct answer.

What was the impact on student feedback?

As mentioned above, the changes did improve the CES score for Math2114 by 10% every year (even though we need to analyse the data further to be sure the increase was the direct result of changes) but adding more weblearn tests for Math2123 did not have a great impact on the CES score. However, the feedback from students’ consultation meeting was positive. The reason the CES score was not affected could be related to the fact that Blackboard on the Learning Hub was having some accessing problems for the first 8 weeks of the first semester 2008. Student tests were locked up very often not allowing them to access their mark for the test that they had completed. Also they could not do their next test because of the lockup. As for the long term impact, we are hoping that it would be significant due to the fact that the implemented changes are addressing issues raised by previous students who had done the course.

For Math1277, the written student feedback provided on the CES indicated that they were appreciative of the opportunity to discuss the topic tests in depth. Also indicated in their feedback was an overall positive response to the efforts taken by the teaching team to refine the assessments to help them demonstrate their true mastery of statistical techniques.

Were there changes in student learning and experiences?

This is answered previously -(what the project achieved).

How are the students being taught differently? Eg teaching strategies, structure & size of classes etc

This is answered in the part- (what changes occurred in each course).

What other impacts (including long term outcomes) were there?

We introduced a teaching incentive scheme in the school so that staff who have achieved significant improvements in their good teaching score (GTS) were rewarded. We started to discuss teaching practices during staff meetings.
Staff started to talk about their teaching experiences in the staff meetings. Based on the staff comments regarding teaching matters, the Head of School has invited IT staff to the school meeting so that staff can discuss their IT problems with them and raise their concerns in delivering on line materials.

**Were there any tangible outcomes eg Grants, scholarship etc**

The most significant outcome was the success of an RMIT LTIF grant application to the value of $48,000 entitled “New ways of Learning - Teaching and Assessment of Large Classes”.

The grant addressed the following:

- **Innovation 1** – Student diversity in multi-discipline large classes by providing relevant disciplinary context-related exemplars in teaching service classes.

- **Innovation 2** – Tutor teaching practices by trialling innovative ways of providing and supporting tutors in large service classes.

- **Innovation 3** - Exploring and implementing effective ways to provide feedback to students in large service classes.

The integrated learning system utilized existing IT infrastructure currently available at RMIT and blended with what is available via resources such as WebLearn.

**Innovation 1**

This innovation led by Dr Mali Abdollahian and Dr Yousong Luo used the course Maths 2123 to develop, pilot and evaluate relevant discipline specific examples for teaching the course. During semester 1, 2008, five 3rd and 4th year students from the relevant disciplines were selected to develop relevant data and examples for teaching statistics and mathematics in the first year multi-discipline large class. These examples were reviewed and validated by the chief investigators, then uploaded into the course material on the Distributed Learning Management system (DLS). The redesign of the online component of the course included changing the resources and exemplars into sub-categories related to the multiple disciplines and student cohort taught in the service teaching classes. This project is ongoing.

These exemplars will be used for teaching and will be evaluated in terms of their effectiveness in improving student learning experiences and outcomes. The GTS score and retention of students will also be indicators for the success of this initiative. The examples will be refined for use in 2009. A full evaluation of the initiative will be completed and will feed into the overall project evaluation. The project findings will be reported and lessons learnt and good practices disseminated to the school, RMIT and the higher education community nationally and internationally.
The major benefits it is hoped will accrue from this initiative are that students:

- will learn statistics and mathematical concepts via the examplar and be able to see its immediate application in their respective disciplines.
- can simulate the data analysis employed in the discipline which enhances understanding of the concept.
- learning occurs more efficiently and is integrated within their own discipline areas.

Innovation 2

This innovation was led by Dr Ian Grundy and Dr Claude Zorzan to institute a pilot using the Queensland University model of ‘volunteer tutoring’ cited in the Australian University’s Educational quality best-practice here at RMIT in the course Maths 2117. Two lecturers explored the possibilities and ways of implementing it at RMIT. The initiative uses 3rd and 4th year students to peer tutor lower years of the program on a voluntary basis. All tutors are mentored and supported by academics. Selected tutors are provided formal training in learning and teaching.

In the first semester 2008 the investigators set up the scheme, selected tutors, and provided support and mentoring when they were conducting tutorials. In 2nd semester this continued and interviews were used to find out what are the key success factors and barriers to implementing such a scheme. The interviews identified the key elements that tutors needed in their training. The project will be evaluated and refined for use in 2009 with focus on improving teaching practices and student learning outcomes. A full evaluation of the initiative will be completed and will feed into the overall project evaluation. The project findings will be reported and lessons learnt and good practices disseminated to the school, RMIT and the higher education sector nationally and internationally.

Innovation 3

Innovation 3 led by A/P Cliff da Costa and Dr Anthony Bedford to expand on their current practices of teaching online by exploring effective ways of providing feedback to the students. Currently students use Weblearn applications to self assess their learning and are provided with hurdles so they can achieve mastery of the topics and their learning objectives. What is lacking in this approach is providing immediate, prompt and appropriate feedback for learning.

In semester 1 2008 the investigators explored common mistakes students make, common misconceptions and develop appropriate feedback for the databank. This information will be gleaned from the multiple-choice tests that the students will have done during semester 1 and in 2007. They will input this on the Weblearn database so that it feeds into the teaching and learning modules on the DLS In semester 2 first year students will use it. The feedback would be refined as students use the learning assessment tasks. The project will be evaluated and refined for use in 2009 with the focus of improving teaching practices and student learning outcomes. A full evaluation of the
The initiative will be completed and will feed into the overall project evaluation. The project findings will be reported and lessons learnt and good practices disseminated to the School, RMIT, and HE sector nationally and internationally.

The major benefit that would accrue from this initiative is:

- Utilising the Weblearn system to facilitate speedy delivery and feedback to students in large classes from a variety of disciplines.

### 10.6 Critical Success Factors

**What were the contributors to success?**

- The commitment from the teaching staff in the ART project.
- The commitment of the ALTC Project Leaders in addressing the issues which were related to improving and supporting teaching at RMIT.

**What were the impediments to success?**

- We had to reorganise the group because of a school redundancy process (Two members in term 1 and the leader in term 2 left the University).
- Our facilitator who was a great help and very knowledgeable with the teaching literature resigned in November 2007.
- The change in the Learning Hub via Blackboard happened very close to the start of Semester 1 2008, therefore we cannot be sure if the changes (good or bad) in the teaching score were due to IT problems or other factors - we need to analyse the results further.

**List separately – strengths and weaknesses of the Project**

**Strengths:**

- It brought the teaching staff together to share their 'success and failure' practices in teaching large classes.
- It was extremely educational 'that some staff decided to adopt' success factors in their own teaching practices.
- It allowed staff to see that the same success / failure factor(s) lead to the same results considering the fact that students have varying math backgrounds.
- It provided the opportunity for us to bring IT and Property Services within RMIT to the table, tell them our concerns, and seek their help in fixing some of these issues.
Weaknesses:

The online survey was subject to a number of IT related problems that resulted in only 2 respondents. Accordingly it was decided not to use online surveys in undergraduate courses.

A similar problem in postgraduate courses has since been recorded.

10.7 Other Issues, Challenges and Suggestions

What issues, challenges have been faced by the team members in this project?

Not having control over the teaching venues, IT problems, not being able to commit our Postgraduate students to take part in the tutoring scheme (as they had more favourable financial conditions in TAFE) and changes in our team and leadership.

Which issues and challenges remain?

– We have to investigate if the venue and IT problems will be addressed in the near future.

– We still have the issue that students do not recognize their responsibilities in the learning process especially in their first year.

What suggestions for further improving impact on student feedback – at course team, program, discipline, School and university levels?

– We used the feedback in week 10 and felt students had clearer understanding about the questions in the survey; however some of us collected our own feedback earlier in the semester by informal discussion during lectures. Our aim was to find out if there was an issue earlier in the semester then staff members could attempt to rectify it as soon as possible.

– Not using online feedback for undergraduate students. Our experience shows that even at postgraduate level the on line response was very poor.

– Students should be informed fully by their course coordinators about the importance of their responsibility in the learning process.

– Students should be informed fully by their course coordinators about the importance of the feedback surveys and impact on the funding that RMIT receives from the Federal Government and how to differentiate between teaching practices (Good Teaching Score) and environmental or IT issues.
– We should address student diversity in multi-disciplinary large classes by providing relevant disciplinary context-related exemplars when teaching ‘service classes.’

– Providing group feedback on student assessments on a weekly basis and a recapture of the problematic topics through extra assessment (if possible) before moving to new topics. (This is very effective for first year and the mathematically weaker groups).

– Encouraging teaching staff to share their success and failures in teaching large classes and using it as a mentoring guide for all the new and less experienced teaching staff.

– If the score 3 has no impact on the Good Teaching Score, then, maybe this should be replaced by "I do not care" or "I do not know" so that we can look at the percentage of those who just do not care about the course.

10.8 Resources

What resources have you accessed and found useful? Eg journal articles, case studies etc

A comprehensive list of references is provided in section 10.13 References.

What external expertise have you enlisted or accessed? How useful and in what ways has this been beneficial to your ART project?

Staff attended the ATN Evaluation and Assessment Conference. Assessment and Evaluation for Real World Learning, A conference for University Teachers, 29–30 November, 2007, Queensland University of Technology.

Cliff da Costa attended the conference and met with Helen MacGillivray of QUT to gather information about the structure and organisation of the QUT tutor training and tutoring system. We could see that we are already undertaking most of the practices that are recommended by others in our teaching.

What other resources eg people, finance, internal university funding etc have been available?

We employed a small number of research assistants to carry out the statistical analysis for us using RMIT LTIF funding money.
Have you developed any resources that may be useful for others to achieve these outcomes? Describe or list or append.

– We are aiming to develop a list of suggestions for improving students teaching, learning, assessment and feedback practices through our LTIF grant.

– We have presented a list of the 'top ten' student concerns to a meeting of the maths and stats staff, together with a list of suggestions for better teaching practice.

– The above information is posted on the School L-drive under 'teaching and learning practices information.'

10.9 Sustainability and Transferability

Has this project achieved a sustainable change in practice to improving student feedback?

We have created a new position of Director of Learning and Teaching in the school whose role is to continue to transfer effective teaching and learning practices to other staff in the school and to encourage them to share their innovations with others in the school.

What is planned in the School to extend the impact of the project beyond this team?

– We have introduced an incentive for improving the good teaching score in the school by rewarding staff who have achieved significant improvements in their teaching.

– Different groups in the school are responsible for improving the average teaching score for the group.

– Improving the teaching score has become embedded as part of the work plan in the school.

Have you observed changes/initiatives in your School, Portfolio or University wide that are attributed (directly or indirectly) as a result of your ART project?

AV & IT and Property Services have become involved in supporting teaching problems as a direct result of this project.

Are the outcomes of this project transferable to other parts of RMIT and / or the higher education sector?

Yes, the successful practices can be summarised in a dot point document and staff can be encouraged to adopt them in their own teaching and learning practices.
10.10 Leadership Reflections

Questions for ART (as a whole team):

1. What has your participation in this project enabled you to achieve in regard to improving student feedback?

By adopting more effective methods of teaching assessment and feedback we could improve the good teaching scores in large service classes. The effective methods were discussed in the group by the staff (based on their own personal experiences) at the beginning of this project.

2. What are the key factors that enabled you to achieve this?

Reading student written comments at the beginning of the project meant whatever actions we took were to address their concerns, and we were trying to redesign the courses to reflect embedded student centredness.

3. What challenges did you face in achieving this?

– Mainly IT problems and lecture venue locations when delivering some of the changes.
– Students not recognising their responsibilities in the learning process.

4. How has your participation in this project increased your knowledge about how to enhance student learning and improve learning and teaching practice?

Listening to experienced staff and using their successful practices; also listening to student’s concerns and taking action to rectify them and most importantly letting them know that staff have done something to address their concerns.

5. Do you see what you have done in this project as a form of leadership? Please explain.

Yes, as a group we tried to pass on our effective practices to the other staff in the school during school meetings and we know that some staff adopted them and had very good experiences in their teaching practice. Throughout the course of the project we did address some of our challenges in the monthly ART Leaders meetings and actions were taken to address many of these problems such as; IT issues; allocating the right venue for different courses from different schools and if possible; creating an emergency line so that a technical person could attend the lecture room as soon as any problem occurred with the class equipment between 8.30pm–6.30pm. This information was passed to other staff during staff meetings to show that the group was being effective and were taking their leadership role seriously.
6. How will the knowledge and experience you gained affect your future practice in enhancing student learning and learning and teaching practice across the university?

It is important to keep listening to experienced staff and hearing their successful practices and listening to student’s comments and designing teaching processes by taking all of these factors into account. This is definitely a quality cycle that should always be running through the quality review loop.

7. What would you like to see happen across RMIT as a result of the knowledge and skills you have learnt and the improvements you have made to the student learning experience?

This information should be readily available to any new and less experienced academic and general staff. More work should be done to improve the students’ knowledge of their responsibilities in the teaching and learning process.

8. What future contribution, role, would you like to have in the ongoing process of improving the student experience?

To try to improve teaching practices so that students can see the significance of what they are learning in their future job and their daily life.

Additional questions for ART leaders

9. In what ways did members of your teams exercise leadership (this is intended as an objective question rather than subjective it is not intended to mention individual names)?

When staff were asked to share their successful and unsuccessful practices and lead the group in adopting those practices.

10. In what ways can leadership within teams, such as your ART, be supported and enhanced?

Meetings of teams such as ours could be encouraged by the Director of Learning and Teaching in the School and follow what we did on a yearly review basis.

11. How can leaders of ARTs be better supported and enhanced?

The teaching process involves so many staff groups of the university not just the academic who delivers the course. To see real changes in the teaching practices one must involve every different section of the university in the process and let them sit around the discussion table and hear first hand from teaching staff how their section could improve the students experience throughout their university life.

After being involved in this project for almost two years can say that the reason that this project was so effective was because of the high level management staff that were involved. They brought every individual section that plays a role in delivering courses around the table and made them listen to the ART leaders and their concerns about the role of that section in supporting and improving the teaching process.
10.11 Evaluation of the ART Project

The “Good Teaching Score” (GTS) for the majority of the subjects that were used as a ‘pilot subject’ in this project improved by about 5-10% per year and in general the school average CES increased continuously from the start of this project by 15.5% in 2007 and another 9% in 2008. The ART project also lead to the success of 2 Teaching and Learning grants by the group in 2008 to the values of $48000 and $18000 respectively.

The project lead to the creation of a new position of Director of Learning and Teaching in the school. The position is taken by one of the ART members and his role is to continue to transfer effective teaching and learning practices to other staff in the school and to encourage them to share their innovations with others in the school.

The School has also introduced an incentive for improving the GTS in the school by rewarding staff that have achieved significant improvements in their teaching, and has made each discipline group responsible for improving the CES score for their discipline. This will only be achieved if each individual member in the discipline adopts the effective teaching, learning and assessment practices. The other significant impact of this project is the fact that improving the teaching score has become part of the work plan of the School.

10.12 Recommendations

**School:**

- Address student diversity in multi-discipline large classes by providing relevant disciplinary context-related exemplars in teaching service classes.

- Provide group feedback on student assessment on a weekly basis and recapture the problematic topics through extra assessment (if possible) before moving to the new topics. This is very effective for first year and the mathematically weaker groups.

- Encourage teaching staff to share their success and failures in teaching large classes and use it as a mentoring guide for all the new and less experienced staff.

- Experienced teaching staff should be encouraged to use more applicable examples in their teaching material so that service students can see the relation between their field of study and topics taught.
College / University wide:

- Students should be fully informed by their Course Coordinators about the importance of their responsibility in the learning process.

- Students should be informed by the Program Leaders about the importance of the feedback surveys and their impact on the funding that RMIT receives from the Federal Government and how to differentiate between teaching practices (Good Teaching Score) and environmental or IT issues.

- Students prefer well organized lecture notes and continuous assessment (probably on a weekly basis) and feedback (preferably individual) throughout the term.

- Begin each lecture with a review of the material covered in the previous lecture and an indication of what will be covered next.

- Students prefer to have multiple attempts at online tests rather than practice with online quizzes and then have only one attempt at the tests (gives them confidence when they do the test and provides a more effective learning environment).

- Lecture notes should be placed online so that students can focus on the material being presented in class, however, the amount of online material should not be excessive.

10.13 References


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