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The Whole of University Experience: Retention, attrition, learning and personal support interventions during undergraduate business studies

Final Report 2011

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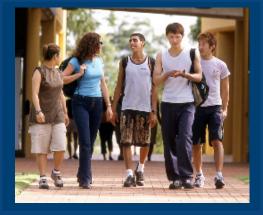
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Acronyms

ABDC	Australian Business Deans Council
ABDC T & L	Australian Business Deans Council Teaching and Learning Network
ALTC	Australian Learning and Teaching Council
ANZAM	Australia and New Zealand Academy of Management
ANZSSA	Australia and New Zealand Student Services Association
ATN	Australian Technology Network
AUQA	Australian Universities Quality Agency
DEEWR	Department of Employment, Education and Workplace Relations
DEST	Department of Education science and Training
Go8	Group of Eight universities
HERDSA	Higher Education Research and Development Society of Australasia
KPI	Key performance indicator
T & L	Teaching and Learning
WoUE	Whole of University Experience

Acknowledgements

1.0   Executive summary

The Whole of University Experience (WoUE) project examined factors underpinning attrition in the first, second and third year of a business degree at six Australian universities – Griffith University, Monash University, Murdoch University, University of South Australia, University of Southern Queensland, and University of the Sunshine Coast. A questionnaire completed in 2008, 2009, and 2010 by a total of 7,486 students enabled gathering of data relating to demographics; students' experience of university; their use and perceptions of the usefulness of student support interventions; open-ended comments about the best and worst aspects of the university experience; and aspects in need of improvement. In each year a small number of students were also interviewed for the purpose of fleshing out the survey data and exploring the interactions between various factors associated with attrition.

Overall, the data strongly indicates that factors related to attrition are generally university-specific and reflect both student characteristics and their responses to the specific institutional culture and environment. The only attrition triggers which span most universities and most years of study are 'lack of a clear reason for being at university' and 'the feeling of having insufficient ability to succeed at university'.

Correlation analysis relating 70 statements probing students' experience of university to the strength of their intention to leave before completing a degree revealed notable differentiation in attrition triggers on the basis of year of study. Follow-up analysis in one university indicated further differentiation in the triggers for attrition, semester by semester. It seems that many different factors underpin attrition decisions in any one institution and for any one individual, for whom attrition appears to be the result of the aggregation of diverse factors generally followed by 'the straw that broke the camel's back'.

When responses are grouped by demographic variables some difference in the factors associated with domestic and international student attrition is apparent, but no difference in the factors associated with their sense of satisfaction or belonging is obvious. In the responses of international and domestic students to issues of teaching quality, differences primarily related to expectations regarding teaching staff approachability, availability and helpfulness. For students enrolled part-time or full-time different factors underpin attrition, and attrition triggers also differ on the basis of time spent on campus and average grades. Preliminary analysis suggests that having to take a loan or engage in full-time work to fund studies is a greater attrition risk factor in most universities than is the receipt of Centrelink benefits (which may be seen as a proxy indicator for low socio-economic status).

Analysis of responses to questions about the use and usefulness of student support interventions indicates that, in general, when students use personal support interventions these are mostly seen as very useful. However, data also indicate that many, and often the majority of, students have either not used or are not aware of the support services available.

Practically, the project has delivered, and will continue to deliver, significant value to the higher education sector. On the basis of evidence from the project, partner universities have begun addressing high-value student retention issues and it is expected that this evidence will continue to influence institutional decision-making for several years beyond the life of the project. Dissemination activities external to partner universities, including publication of five journal articles and numerous workshops or presentations, have assisted staff in other universities to reflect upon issues critical to student retention in both first year and beyond. Further publication

outcomes are expected. Critically, as indicated in the independent project evaluation, "the project has directed much needed attention to factors associated with attrition in later years of the student experience (second and third years) … facilitated discussion around frameworks for evidence-based institutional responses that constitute effective interventions … [and] reinforced the need for institutions to collect their own data on the student experience to inform individual institutional responses and interventions".

2.0   Overview of the project

2.1   Introduction

In recent years, attrition of first year undergraduate students has been identified as an issue of major concern for universities. The most recent comparative figures available from the Department of Employment, Education and Workplace Relations (DEEWR) indicate that, in 2007, state averages for attrition of first year bachelor degree students ranged from 13.5 per cent to 31.4 per cent, while individual institutions recorded attrition ranging from 7.4 per cent to 31.5 per cent (DEEWR 2007). Research conducted with Australian students during the period 1994–2004 has provided detailed data on the university experience of first year students and factors influencing retention and attrition in the first year (Krause, Hartley, James & McInnis 2005).

With the focus upon the first year experience, relatively little attention has been paid to attrition and retention in Australian universities in subsequent years. Department of Education Science and Training (DEST) (2004) figures indicate that, nationally in 2002, attrition amongst non-commencing students, i.e. second and third year undergraduate students, ranged from 6 per cent to 25 per cent. Despite the obviously significant number of later year withdrawals from university study in Australia, regular data relating to such withdrawals are not published and very little is known about the factors influencing these withdrawals. It is clear, however, that as a consequence of attrition across the full period of university degree study, many Australian universities graduate fewer than 60 per cent of the students who commenced first year study.

In concert with the focus on first year retention and attrition, over the past decade numerous learning support and personal support interventions specifically designed to enhance the first year experience in both Australia and overseas have been funded, trialled and reported in journals, e.g. Campbell & Campbell 1999; Cox et al. 2005; Glaser et al. 2006; Goodman & Pascarella 2006. An additional body of literature developed over this time in both Australia and overseas describes learning support and personal support interventions designed to address identified problems in the classroom or identified problems in students' capacity to cope with university, e.g. Sharkin 2004; Morrison & Brown 2006; Payne et al. 2006; Wamser 2006. Although a small part describes an intervention trialled sequentially on different cohorts, most relates to a single trial of an intervention. Literature evaluating the impact of interventions on the attrition and retention of a cohort of students throughout their undergraduate studies appears to be entirely lacking.

Thus, despite the fact that every university in Australia has units, sections or staff dedicated to supporting students' academic and personal journeys through university, and despite the many student learning support and personal support interventions that have attracted government or university funding over the last decade and a half, very little is actually known about the longitudinal impact of student support interventions in terms of their effect upon retention and attrition.

This project sought to fill these significant gaps in knowledge about retention, attrition, and the impact of learning and personal support interventions on retention, so that the services and support Australian universities offer their students may be better targeted and more effective. Practically, it sought to bring about change identified as necessary within the partner universities, and to share amongst partner universities experiences of successful interventions and lessons learnt in the process of addressing identified needs.

In order to provide an evidence base enabling more effective decision-making in relation to the provision of support services for students at risk of attrition, the project sought to capture the experiences of students progressing through the three years of an undergraduate business degree, to create a picture of the factors influencing students to leave or stay at university.

From 2008–2010 data were gathered from first year, second year, and third year students in each of six diverse universities, for the purpose of enabling comparison of students' experiences in each of those years at each university and across universities. The project also tracked a cohort of students from first year through to their final year of undergraduate degree studies.

The project addressed two Australian Learning and Teaching Council (ALTC) priorities:

- research and development focusing on issues of emerging and continuing importance, and

- strategic approaches to teaching and learning that address the increasing diversity of the student body.

2.2   Aims of the project

The primary purposes of this collaborative project were to:

1. Enhance evidence-based practice relating to student retention by

    a. identifying the factors and combinations of factors critical to students' decisions to withdraw from studies in their first, their second, and their third year of their university studies, and

    b. identifying the student learning and personal support interventions that are key facilitators of students' decisions to remain at university throughout the course of their degree studies;

2. Increase the effectiveness of learning support and personal support interventions used by the partner universities, to better scaffold students' learning experiences and experience of university;

3. Provide data relevant to all Australian universities seeking to improve the effectiveness of the learning support and personal support interventions they offer their students;

4. Develop a bank of data that will provide the basis for a 'teaching and learning research concentration' in the business faculties of each partner university; and

5. Build capacity and community through the sharing among staff from seven* universities of experiences about existing student support interventions and changes to interventions arising from the project.

(*One of the seven partner universities withdrew from the project at the end of the first year, due to changes in institutional priorities because of the global financial crisis.)

The anticipated project outcomes specified in the funded grant application - and directly related to the primary purposes of the project - were:

- Identification of the relative influence of varied factors on the decision to withdraw from or remain at university over a three-year period, and what might be done to mitigate critical negative influences;

- Better understanding of the impact of student support interventions over time and of the characteristics of successful student support interventions;

- Development of a profile of students at risk of withdrawing throughout the course of their studies and identification of the needs of different market segments;

- Changes within each participating university to some of the learning and personal support interventions examined;

- Establishment of a teaching research concentration within each participating business faculty; and

- Growth of a nationwide community of practice which shares experience relating to retention, attrition and student support.

2.3   Project team and reference group

The project started its funded life with a project team of 15 academics drawn from seven universities (three from the lead university and two from each of the other partner universities). It also commenced with a reference group of 16. This group comprised staff working in various aspects of student support provision (three from the lead university and two from each of the other partner universities) and one academic who had undertaken research into students' first year experience and who agreed to provide input into the grant application phase of the project.

During the three and a half years between laying the groundwork for and completion of the project, there were numerous changes to the composition of both the project team and the reference group as a consequence of resignations, redundancies, changes of role, and periods of extended leave. The composition of the team and group was also altered by the withdrawal from the project of one of the partner universities. Nevertheless, throughout and in spite of personnel changes, project team and reference group members continued to work at each partner university to implement the two primary aspects of the project:

- data gathering, analysis and reporting; and
- the review of or changes to learning and personal support interventions designed to address attrition.

The project team and reference group members listed on the title page of this document represent those staff from each university who had greatest involvement in the project throughout its life and/or who remained active contributors at the time of the official termination of the project. Both project team and reference group members have been listed on the title page because achievement of both aspects of the project has been very much dependent upon information sharing and active partnership between academic staff and staff working in areas of student support provision.

3.0 Project design and methodology

3.1 Unfunded preparatory work: questionnaire development and ethics approval

A critical facet of this project's development was the period of unfunded preparatory work that occupied 14 months prior to the award by the ALTC of a national Competitive Grant. During this period, review of relevant literature and research involving current students contributed to the construction of several drafts of a 'Whole of University Experience Questionnaire'. The form required to obtain ethical clearances was also completed and submitted.

In 2006, the lead institution (University of the Sunshine Coast) created a research-teaching nexus designed to prepare the ground for the broader seven-university project. Drawing on data from the decade-long year Australian study of first year retention and attrition (Krause et al. 2005) as well as other relevant research, in Semester 1 2006 Advanced Research Methods students (53 USC third year business undergraduates) designed and self-administered a questionnaire on factors influencing attrition and retention at USC. This highlighted several factors in retention and attrition that had not featured in the national study, perhaps because the factors investigated in the national study had predominantly been determined at the inception of the study more than 10 years earlier.

In Semester 2 2006, Applied Research Methods students (169 USC first year business undergraduates) conducted focus groups within the classroom. Focus group responses to questions about factors likely to lead to attrition highlighted still more factors not investigated in the national study. These factors, together with those identified by the third year students, were subsequently included in a 126-item questionnaire on retention and attrition constructed by their lecturer (a USC member of the project team). Data obtained through Applied Research Methods students' subsequent self-administration of this questionnaire were discussed by these students during a tutorial and, subsequently, subjected to principal components analysis. (See Appendix 8.2, a journal article which describes the research-teaching nexus implemented at the lead university to assist questionnaire development.)

On the basis of the factor analysis; comments made by students after completion of the questionnaire; input from the seven project-partner universities; and input from our evaluator, a second draft of what was to become the Whole of University Experience Questionnaire was developed. In addition to questions relating to demographics (Section A) and factors influencing attrition (Section B), this second draft also contained items relating to the use and perceived usefulness of student support activities, services and facilities (Section C). To develop these items, a wide range of student support services in each university were consulted regarding the support services and activities about which they would seek students' feedback. This second draft, including the relevant university-specific Section C items, was trialled by a total of 247 students in two of the seven partner universities (again, all undergraduate research methods students with an academic interest in survey instruments). Those who completed the questionnaire were asked to make comments about the intelligibility and relevance of its items, its format and length.

Principal components analysis of the 247 responses to the second draft of the questionnaire, the students' comments, and comments from all partner universities informed construction of a third version of the questionnaire. A limited trial of this

third version was implemented in one university to eliminate previously undetected problems and to pinpoint any necessary minor changes.

The fourth and final version of the Whole of University Experience Questionnaire (refer Appendix 8.1) contained:

- 28 Section A demographic items
- 70 Section B items exploring students' experience of university
- approximately 14 Section C items investigating the use and usefulness of specified university services and facilities (the actual number of items varied in the questionnaire used by each of the project partner universities, reflecting different service naming and provision), and
- 3 Section D open-ended response items asking students for their perceptions of the best and worst aspects of services, facilities and support, and what needed to be improved.

Coincident with the later stages of questionnaire development, the partner universities began construction of an application for ethics approval, using the National Ethics Application Form. In mid-2007, immediately after the ALTC announced that the project had been awarded funding, this application was submitted to the lead university's ethics committee for approval. Written confirmation of ethics approval by the lead university and use of the universal application form facilitated the subsequent granting of ethics approval by partner universities. By the time funded work on the project began in December 2007, final ethical clearances had been obtained from all but one of the seven partner universities.

3.2   Project plan, timeline and activities

The implementation of a project designed to gather data spanning three years within the constraints imposed by a two-year funding period necessitated not only the preparatory work described above, but also timeline economies in the third year of project implementation. In the application for funding, partner universities presented to the ALTC (then the Carrick Institute) the project timeline and set of activities at Table 1: Project timeline and activities, overleaf

Table 1: Project timeline and activities

Year/Month	Activity
Pre-funding	
Feb-May 2007	• Liaise with partner universities to establish shared vision of project, identified needs and desired outcomes
March-June	Develop student support questionnaire items
June- Nov	• Meet with partner universities to confirm shared vision of project, identified needs and desired outcomes • With student support functions identify intervention information needs at each university (videoconference) • Develop preliminary interview schedules • Trial draft questionnaire • Liaise with student administration re processes to identify withdrawing students • Seek ethics approval
Phase 1: 2007/8	
Dec 2007	• Seek feedback on project from evaluator
Dec	• Develop Opinio databases for each partner university • Liaise with partner universities re questionnaire
Jan-Feb 2008	• Prepare Dean's letters and email requesting questionnaire completion • With student support functions develop strategies for evaluating efficacy of student support outcomes (videoconference)
1 week after S1 census	• Distribute email requesting questionnaire completion • Upload questionnaire, open access and monitor difficulties
3 weeks after S1 census	Return questionnaire responses
May- Sept	• Analyse 2008 questionnaires, including student support data • Forward analysis to partner universities • Develop draft interview questions using input from student support functions and questionnaire data (videoconference) • Trial draft interview questions
Oct	Identify students who have withdrawn
Oct-Nov	Interview students who have withdrawn and those 'likely to withdraw' who stayed
Dec	• Analyse 2008 interview data (videoconference) • Forward analysis to partner universities • Prepare and forward interim report to Carrick Institute (ALTC)
Phase 2: 2009/10	
Feb 2009	• Report findings from analysis of 2008 questionnaire and interview data to reference group and stakeholders in each partner university (and check project performance against partner needs)
Feb	• Seek evaluator feedback on project progress and plans
March-April	• Develop practical responses to project findings
1 week after S1 census	• Distribute email and Dean's letter requesting questionnaire completion • Upload and open access to 2009 questionnaire and monitor difficulties
3 weeks after S1 census	Return questionnaire responses
May	• Evaluate project in terms of measurable practical outcomes (videoconference) • Report project progress to Carrick Institute
May- Sept	• Analyse 2009 questionnaires, including student support data • Forward analysis to partner universities • Make any necessary adjustments to interview schedules (videoconference)
July	Present papers at HERDSA, ANZMAC and AFAANZ conferences on 2008 results
Oct	Identify students who have withdrawn
Oct-Nov	Interview students who have withdrawn and those 'likely to withdraw' who stayed
Dec	Present papers at ACIS and ANZAM conferences on 2008 results
Dec	• Analyse 2009 interview data • Forward analysis to partner universities
Feb 2010	• Report findings from analysis of questionnaire and interview data to reference group and stakeholders in each partner university (and commence gathering of final evaluative feedback on project performance)
1 week after S1 census	• Distribute email and Dean's letter requesting questionnaire completion • Upload and open access to 2010 questionnaire and monitor difficulties
3 weeks after S1 census	Return questionnaire responses
April	• Analyse 2010 questionnaires, including student support data • Forward analysis to partner universities
end April	Identify students who have withdrawn
May	Interview students who have withdrawn and those 'likely to withdraw' who stayed
June	• Analyse 2010 interview data • Forward analysis to partner universities • Evaluate project outcomes in terms of measurable practical outcomes (videoconference)
June	• Consolidate interview and questionnaire data over three years and meet with partner universities to discuss overall findings and project outcomes (videoconference)
July	• Write final project report • Evaluate project outcomes • Forward final project report to Carrick Institute (ALTC)

In practice, despite agreement amongst partner universities that this timeline would serve as the plan for project implementation, it soon became apparent that the project timeline needed supplementation. Six months after data collection had started, a member of the project team circulated an 'intended project logic' matrix that he had used in planning another ALTC project. The detail in this matrix highlighted the value of having all project team members discuss their project aims, outcomes, and activities for the purpose of ensuring alignment between what each university (and its project team members) anticipated and assumed. By contrast, the timeline focused only on the week-to-week activities required to achieve project aims.

As it was clear that alignment would not be readily achieved through videoconferencing, a deviation from plans to rely upon videoconferences only for national communication, saw a whole-day face-to-face meeting of partner universities convened in October 2008. All Whole of University Experience (WoUE) project team and reference group members were invited to the meeting, which was ultimately attended by eight project team members (from six of the seven partner universities) and six reference group members (from four universities, including the one unable to send a project team member). At that meeting the team completed a (modified) 'intended project logic' matrix, a matrix which subsequently became known as the project plan.

In this project plan, against each of the aims the team:

- identified stakeholders;
- developed a set of measurable key performance indicators (KPIs);
- defined strategies designed to enable achievement of the KPIs;
- related these aspects of the plan to the deliverables promised in the competitive grant application, and
- listed a set of assumptions about what was needed to make the project a success.

The discussion which led to the development of this set of assumptions elicited previously implicit feelings about what should happen, and gave a basis for openly and honestly talking about potential or actual difficulties in project management and interpersonal interactions.

The process of developing the project plan had unintended consequences. While it helped define strategies for achieving the project's stated aims it also led, through the defining of these strategies, to the adoption of new plans of action. For example, it became obvious that an annual face-to-face meeting was essential to the effective fulfillment of project goals. Further, the presence of a senior university administrator on the project team helped all recognise that, if the project was to deliver outcomes useful to the sector and senior managers on an ongoing basis, the development of a tool enabling institutional benchmarking of factors associated with attrition would be needed. Finally, the project plan provided a tool for reviewing and evaluating in detail progress against project aims, stated outcomes and deliverables. Table 2 (below) presents the project plan.

Table 2: Whole of University Experience project plan

Project aims	Key stakeholders	Key performance Indicators/outcomes	Strategies for achieving goals	Deliverables	Underlying assumptions (critical to success of project)
1. Enhance evidence-based practice relating to student retention by a. identifying the factors and combinations of factors critical to students' decisions to withdraw from studies in their first, their second, and their third year of their university studies, and b. identifying the student learning and personal support interventions that are key facilitators of students' decisions to remain at university throughout the course of their degree studies	**Students** Student Unions Secondary school advisors Family/friends **Support Services** International Student Relations **Business Schools** **Senior managers** **Staff** **DEEWR** **ALTC** Editors International Agents	Improved student awareness of and access to key support interventions Adoption of recommendations from WoUE project by partner universities Evidence of project recommendations in key strategy documents in the partner universities	Identify high impact interventions to allow targeted resourcing to improve student retention Communicate evidence-based recommendations from the WoUE project to key stakeholders Document take-up of recommendations from the project Inform students of the outcomes of project	Presentation of university-specific findings to staff and students, and discussion of implications of these within partner universities Presentation to ABDC T&L Network Journal articles Conference presentations Project report to ALTC	That there is: Valuing of the scholarship of learning and teaching Preparedness to engage in collaborative research Preparedness to share information with partners Maintenance of confidentiality re sensitive data A custodian of the complete data set, namely USC Adherence to ethical practice and principles
2. Increase the effectiveness of learning support and personal support interventions used by the partner universities, to better scaffold students' learning experiences and experience of university	**Students** Student Unions **Support Services** University-wide International Student Relations **Business Schools** **Senior managers** **Staff** **ALTC**	Take-up of recommendations and identified changes emerging from project within partner universities Pre- and post-intervention change in student perceptions (measured by successive WoUE project surveys) Definition of generic categories of 'at risk' students	Communicate potential intervention strategies to senior management, admin and academic staff Document changes in practice by academic and administrative staff associated with WoUE project Inform students of the outcomes of project for the purpose of assisting them to identify their own needs Seek profile data on students leaving Define categories of at-risk students and develop appropriate interventions for each category – market segments	Presentation of university-specific findings to staff and students, and discussion of implications of these within partner universities Presentation to ABDC T&L Network Journal articles Conference presentations Project report to ALTC	Frank, honest disclosureof the good, bad and ugly Commitment to participate in an annual face to face meeting Valuing of differences and diversity Defining of and conforming to established research protocols, taking into account contextual differences and settings Sharing of resources and promotional material

Project aims	Key stakeholders	Key performance Indicators/outcomes	Strategies for achieving goals	Deliverables	Underlying assumptions (critical to success of project)
3. Provide data relevant to all Australian universities seeking to improve the effectiveness of the learning support and personal support interventions they offer their students;	**Senior managers** Planning & Statistics **AUQA** **Support Services** Domestic/ International **Business Schools** **DEEWR** **ALTC** Australian universities ABDC ABDC T&L Network ANZ Student Services Association	Dissemination of information about retention impact factors to national university clusters Development of a benchmarking tool	Identifying common impact factors with reference to university and student demographic profiles Generate research collaboration around benchmarking	Presentation to ABDC and to ABDC T&L Network Benchmarking tool Journal articles Conference presentations Project report to ALTC	developed by the project Willingness to drive and profile the project in partner universities A commitment at senior levels to proactive retention measures or, where this is not apparent, that the project delivers value that creates interest in such commitment Continuation of business as a field of study in each university for the duration of the project Willingness by project management and reference group members to commit time and prioritise the project in their current workloads
4. Develop a bank of data that will provide the basis for a 'teaching and learning research concentration' in the Business Faculties of each partner university	**Business Schools** Academics Journal Editors Associate Deans, T&L Research	Quantity and quality of published journal articles or presentations Development of new T&L research collaborations within and across partner universities.	Provide a literature database to facilitate research publications and outcomes. Ensure data integrity and adequate response rates Provide resources to support data analysis Facilitate access to and understanding of the data captured in the project. Use the website to communicate progress on and outcomes of research projects Facilitate and document collaborative research opportunities and outcomes	Project website EndNote Library/ literature repository Journal articles Conference presentations Project report to ALTC	A commitment within the business schools and the wider university community, particularly academic and administrative staff, to proactive retention measures or, where this is not apparent, that the project delivers value that creates such commitment

Project aims	Key stakeholders	Key performance Indicators/outcomes	Strategies for achieving goals	Deliverables	Underlying assumptions (critical to success of project)
5. Build capacity and community through the sharing among staff from seven universities of experience about existing student support interventions and changes to interventions arising from the project.	**WoUE project management and reference groups** **ALTC** **Existing communities of practice**	Actions implemented as a consequence of meetings and contact Hosting of symposium on project findings for partner universities to share the outcomes of the project with existing communities of practice and other ALTC project groups related to retention	Maintain and develop a literature database to facilitate research publications and outcomes Host face to face meetings to build project and exchange information. Website construction and use for partners to share learnings and progress collaborative projects Foster a sustainable community of practice involving all partner universities Document at institution-level changes associated with the project	Project website EndNote Library/ literature repository Project teleconferences and meetings Symposium Project report to ALTC	

3.3 Project communication strategy

Subsequent to application for the ALTC competitive grant but before inception of the project, the project leader travelled to all partner universities to meet the partner university project team and gather information about specific institutional challenges relevant to the project and the items that needed to be included in the questionnaire. It was planned that such meetings would occur three times during the life of the project, in order to ensure that all partner university needs were being met. As outlined in the timeline in the competitive grant application, it was also our intention to meet regularly via videoconference, with meetings to be held at key times related to development of data gathering tools and discussion of data analysis.

In practice, however, the first time we sought to initiate a videoconference we experienced difficulties in accessing facilities and ensuring the availability of compatible technology across all sites. Investigation of web conferencing indicated that this was also unsuitable, given the number of sites we wished to include in the meeting. Thus we came to decide that teleconferences offered the most viable way of meeting regularly. These have been held at least three times a year, to support or review progress but also at times when key decisions needed to be made. As indicated in the previous section, within the first year of the project we also held a (previously unplanned) face-to-face meeting, and at this meeting we decided that we would meet annually face-to-face, a decision which rendered unnecessary the planned project leader visits to partner institutions.

In addition to our schedule of meetings, and partly as a consequence of ideas encountered by the project leader at an ALTC-organised project manager's meeting, it was decided to set up a project website. This had not been planned prior to project inception, but it soon became obvious that project participants needed a means of sharing ideas and information with each other on an ongoing basis. Specifically, we needed a means of discussing the interview questions to be used in data collection, and a means of discussing (and tracking our discussion of) plans for journal articles and who was to be involved.

We also needed a means of sharing the Endnote file and associated collection of articles that had been built at the lead university with the intent of facilitating the writing of journal articles. In what is believed to be a 'first', the Library at the lead institution discovered it was possible to overcome copyright prohibitions associated with storing journal articles on the project website by giving all partner universities direct access to articles via an Endnote file and persistent (URL) links, as long as all partner universities held the database in which the article appeared.

The final elements in our intra-project communication strategy were regular telephone and email contact, designed to ensure continued progress. Given that the project manager was situated at the lead university, such contact was important in ensuring that partner university needs – particularly during data collection phases – were identified and met, and that planned meetings were held at times that suited the majority of participants. Less obviously but equally importantly, regular informal contact via telephone and email, by both the project leader and project manager but especially by the project manager, served as a means of linking partners, of passing on ideas, and of identifying potential problems and addressing these proactively.

3.4   Data collection and analysis

Data collection and analysis in this project related primarily to the first project aim to 'enhance evidence-based practice relating to student retention by:

a. identifying the factors and combinations of factors critical to students' decisions to withdraw from studies in their first, their second, and their third year of their university studies, and

b. identifying the student learning and personal support interventions that are key facilitators of students' decisions to remain at university throughout the course of their degree studies'.

Data collection

Data were collected at three discrete intervals – during First Semester 2008, 2009 and 2010 – from first year, second year and third year business students in the six universities that were partners in the project: the University of the Sunshine Coast, Griffith University, Monash University, Murdoch University, the University of South Australia and the University of Southern Queensland. In the first year of data collection (2008), data were also collected from the seventh partner university, the University of Sydney.

The Whole of University Experience (WoUE) Questionnaire (see Section 3.1 and Appendix 8.1) was used to gather quantitative data on demographics, students' experience of university, and their use of and perceptions of the usefulness of various student support interventions. Qualitative data were gathered using the open-ended response section of the WoUE questionnaire seeking students' opinions on the best and worst aspects of university services, facilities and support, and what could be done to improve these. Interviews were also conducted with a small number of students who self-identified as having a high likelihood of leaving university before completing a degree and with a small number who self-identified as having no likelihood of leaving before completing a degree. These interviews were designed to enrich the quantitative data obtained from the questionnaire and gather information about how various factors interacted to increase or reduce the likelihood of attrition.

The project timeline indicated our intention to collect quantitative data in each year of the study during three weeks commencing immediately after the First Semester census date. However, before our first data collection phase a partner university reference group member pointed out that data collection during this period would almost certainly not include input from those students most likely to leave, i.e. those who had decided to leave and wished to avoid paying fees, which become due after the census date (typically the end of Week Five of the semester). We therefore decided to open our online questionnaire in Week Three of Semester One and, on the basis of ongoing surveillance of questionnaire completion numbers, we also decided to keep it open for a period of six weeks (rather than three).

Invitations for students to complete the questionnaire were issued (in each of the three years of the study) via email and announcements posted on faculty electronic learning management systems, and by lecturers who incorporated slides publicising the questionnaire in their teaching materials. Completion of the questionnaire was entirely voluntary and also anonymous, unless a respondent chose to provide contact details (enabling an interview) at the end of the questionnaire. After much discussion amongst project team members as to whether the provision of incentives for survey completion was desirable – concerns were raised that respondents might choose the same numerical response for all items – in some universities students who completed the survey (and provided contact details) were offered the chance to

win items such as book vouchers or an iPod. In retrospect, it appears that institutional culture, staff support for the survey, and the students' wish to give feedback probably had more impact on completion numbers than did the provision of incentives. The provision of incentives appears to have had no discernible impact on the validity of the data obtained.

Interview data were collected from selected students who had indicated at the end of the questionnaire their willingness to be interviewed. Contrary to initial plans, interview data were not collected each year at each university, largely because changes to project team membership at some partner universities militated against this. Qualitative data from the questionnaire were also lacking for some universities in the second year of the project as an undetected consequence of an Opinio software upgrade in the middle of the data collection period which caused the open-ended questions to be unavailable for some time at some universities. Nevertheless, over the three-year time frame of the project, qualitative questionnaire data were gathered at each partner university.

Data analysis

Data from the questionnaire were downloaded into SPSS from Opinio (the web-based survey tool used to gather the data). The total sample was divided into two groups: those who had responded 'no' and those who had responded 'yes' to a question in Section A (demographics) asking 'Do you intend to change to a different university in the future?' Research literature suggests that the characteristics of students who drop out and those who transfer may be quite different (Rummel et al. 1999; Herzog 2005; Hovdhaugen 2009), and it was felt that experiences reported by students who were committed to transferring to another university might be unduly influenced by that intention to transfer. The decision was taken, therefore, to exclude from the sample used for the analysis of factors underpinning attrition the group of students who had responded 'yes' to the question about intention to transfer.

Responses to Section B of the questionnaire, which dealt with the experience of university, were subsequently correlated with responses to the item in Section A, 'Please rate the likelihood of the following: I am likely to leave university before completing a degree', which required respondents to choose a point on a seven-point scale ranging from 'certain to leave' to 'certain to stay'. Intention to leave or intention to stay have been found by several researchers to strongly predict actual departure or persistence (Bean and Metzner 1985; Eaton and Bean 1995; Sandler 2000; Summers 2003).

Given that responses to Section B and the item in Section A were on ordinal scales, and that data obtained failed the assumption of normality in that responses to the Section A item were expected to be strongly skewed toward the 'certain to stay' end of the scale, Spearman's rho was used in data analysis. Correlations between intention to leave and experience of university were thus obtained for the sample as a whole; for the sample grouped into years and into number of semesters completed; and for the sample grouped as domestic or international students.

Data from the first two years of quantitative data collection were also subjected to principal components analysis (PCA) to derive factors associated with attrition. This analysis, together with structural equation modelling using all three years of quantitative data, will underpin the development of an attrition benchmarking tool subsequent to the formal conclusion of the project. Hierarchical regression analysis was also used to identify factors associated with domestic and international student attrition and satisfaction.

Qualitative data from the questionnaire were analysed using CEQuery in order to identify key themes in students' perceptions of their university's strengths and

weaknesses and provide each partner university with this analysis. Interview data were transcribed as intended but, given the unexpected institutional diversity in factors underlying attrition, the project team subsequently decided that the data obtained through interviews were best used primarily internally to enrich institutional-specific quantitative data, although it is expected that, subsequent to conclusion of the project, some partner universities may collaborate to produce a journal article based on findings from the qualitative data.

3.5 Critical success factors – review of project design, methodology and implementation

Lessons learnt

Through the process of designing and implementing this project several key challenges emerged which had to be addressed and from which the following lessons were learnt:

Maximise time availability
The constant challenge in a large project such as this was to find the time necessary to ensure the smooth day-to-day running of the project as a whole and at each site. To maximise our efficiency we shared presentations and reports amongst ourselves so that others could use them as templates, we shared our literature database, and we worked collaboratively on papers and conference presentations.

Balance 'nice to have' against 'need to have'
A partner university expressed concern that the initial draft of our questionnaire was so long that many students would be deterred from completing it. Collection of information 'nice to have' could have threatened the ability to collect information that was needed.

Check, check, and check again
In the middle of our survey period, we realised that the qualitative comment section of the questionnaire had 'disappeared' from some universities' surveys. Although we checked that the questionnaire was open and functional we did not go through every item of all six questionnaires, so it took some time for us to realise that some students in some universities had not been offered the option to make open-ended comments.

Employ multiple channels of communication
We discovered that the project could not run effectively without an annual face-to-face meeting, supplemented by regular teleconferences, telephone and email contact. The establishment of a project website enabling the sharing of documents and ideas was also important, even though time availability in practice militated against significant interaction and postings on the site.

Build intra-university relationships
The building of good relationships, prior to project commencement, with key service and support sections within each university helped to ensure the smooth running of the project especially when unforeseen changes were required.

Learn from each other
In many aspects of the project, what was learnt from each other was critical to building the project and meeting new challenges. Our final count of nearly 7,500

respondents, for example, was attributable to what was learnt from each other about strategies for increasing sample size. Communication on a national level and widespread communication at a local level are essential if projects such as these are to effectively balance local differences against the need for national consistency, and to use national data to increase local impact.

Involve the reference group
Our reference group provided important new information, perspectives and opportunities at key times in the project's development. Involvement of the reference group was important also because it helped to provide the critical mass necessary for project implementation and wider dissemination of project outcomes.

Recognise the different roles of project team and reference group members
Although our project initially differentiated project team and reference group roles broadly along the lines of investigation and implementation, in practice in each university the roles played out differently. In several universities, as anticipated, reference group members worked closely with project team members to develop implementation strategies based on the findings of the project. A reference group member at another university gave project team members access to the national body for student support professionals, thus greatly increasing the value and scope of our dissemination activity. In other universities, reference group members assumed only an occasional advisory role. A means needs to be found to ensure that active reference group members, and not just project team members, receive appropriate recognition and reward for their involvement in the project.

Adequately scope the project manager/research assistant role
In retrospect, for such a large multi-university project, employment of a full-time project manager/research assistant is desirable, especially if the project leader does not wish to take on significant project management tasks. Practically, however, in this case the maximum amount of funding available necessitated a choice between reducing the number of partner universities or employing the project manager/research assistant on a part-time basis.

Ensure succession planning
Between the awarding of the competitive grant and receipt of funding, the project team had already lost a member to employment at another university. Subsequently, project team or reference group membership has been affected by retirement, redundancy, resignation, changes of role, hospitalisation and maternity leave. These unexpected changes highlight the critical importance of having more than one project team and reference group member at each university and, also, the importance of those involved in the project having built wider enthusiasm for the project so that new recruits to the team can be found when necessary.

Critical success factors - project design, methodology and implementation

Of the lessons learnt during the implementation of the project, some issues were more important than others in the achievement of the project's full potential and stated goals. Factors that we perceive to be critical to effective project implementation in general are:

Unfunded preparatory work
Given that the one- or two-year time frame within which ALTC projects have to be completed allows little time for establishing of project directions and approvals once the funding period has commenced, it is essential to undertake some unfunded

preparatory work. During this time partnerships and agreement about directions need to be established and drafts of project ethics applications and instruments developed.

Ongoing communication, including face-to-face communication
Face-to-face communication is critical to a shared understanding of a project and to the achievement of its potential. In addition, regular communication via telephone and email, and the availability of a website for sharing of project information are vital.

Active leadership
Responsibility for project implementation in a multi-university project is necessarily shared across sites. Active leadership at each site is important as is the overall project leader's accepting responsibility for keeping in touch with the various sites. This responsibility should not be deflected to the project manager, who may not have the authority or academic status necessary to achieve required outcomes.

Responsiveness to changing needs and opportunities
Despite the funding body's requirement that grant applicants present a detailed timeline and project plan, in practice it is unusual for things to go exactly according to plan. Adherence to plans may actually prevent unanticipated opportunities being seized. It is vital to encourage identification of unexpected opportunities, and also to ensure sufficient budgetary flexibility to allow for reallocation of funding to new opportunities.

Succession planning and provision for handover
Even during projects of relatively short duration there may be changes to the project team as a consequence role change, job moves or other unforeseen events. It is essential to provide for this by involving multiple team members at each project site. It is also important to ensure some time for handover from a departing to a new project team member, in order to facilitate project knowledge transfer.

4.0 Project outcomes and impacts

4.1 Outcomes: Research findings

What did we expect to find?

Research into attrition and retention highlights the pivotal role of both the student's personal background and the student's interactions with the institution. Tinto (1993) explains attrition in terms of the student's failure to integrate into an institution's social and academic systems, and suggests that retention is achieved through the development of student commitment to studies and the institution, the building of appropriate expectations, academic and social engagement, and feedback and support (Tinto & Pusser 2006). Bean (1980) describes attrition as a consequence of background variables, e.g. student prior academic performance and socioeconomic status, and organisational determinants, e.g. student perceptions of the degree's practical value, the opportunity cost of study, institutional quality, fairness of treatment, helpfulness of advice; as well as student grade point average (GPA), major, goal commitment, relationships with staff and other students, work commitments and involvement in campus activities.

Research into first year attrition in Australia has confirmed the role in attrition of prior academic performance, GPA, academic and psychological readiness, academic integration, and conflicting work commitments (Scott et al. 2008; Long et al. 2006; Queensland Studies Authority 2004; Peel et al. 2004). First year attrition, however, represents only one part of the attrition picture, although averaged attrition rates indicate first year attrition of 16.9 per cent of commencing students (DEEWR 2007), OECD figures indicate a completion rate in Australian universities of only 72 per cent (OECD 2009). In general, the amount of attrition that occurs in second year is at least half that in first year (DEST 2004) and further attrition occurs in third year, with the consequence that some universities graduate fewer than 60 per cent of the students who enrolled in first year.

The limited existing research into later year attrition suggests that the factors influencing later year attrition may be different from those influencing first year attrition. In the USA, Mohr et al. (1998) found that, although students nominated financial problems, transfer to another university, academic difficulties, family responsibilities, personal problems, and poor advising or teaching as principal reasons for withdrawal, thematic analysis identified four key dimensions leading to dissatisfaction: institutional alienation, e.g., feeling uncared for; dissatisfaction with guidance and access to information; dissatisfaction with quality of education; and dissatisfaction with policies and facilities. In Australia, Peel et al. (2004) found that later year students were more likely to report course dissatisfaction as a key factor in withdrawal, contrasting with the issues of transition, commitment, motivation and integration reported by first year students.

What have we found?

Analysis of our 2008, 2009 and 2010 data, gathered from universities in four Australian states, focused on similarities and differences in the factors associated with attrition: 1) in the first, second and third year of studies, 2) of international and domestic students, 3) across universities. This third avenue of investigation, the comparability of results from national studies such as this, sets the scene for further discussion of findings from the project.

Lessons from national studies
Despite the appeal of generalised conclusions drawn from national studies, the results indicate that caution needs to be exercised when aggregating results from student experience or attrition research across universities, or when extrapolating findings from single-university studies to other institutions. The project found that, while some factors associated with attrition are shared by some universities, fundamentally each of the six universities has an individual 'attrition profile'. Similarities and differences in factors associated with the likelihood of leaving before completing a degree are not predictable on the basis of type of institution, e.g. regional, urban, Australian Technology Network (ATN), Group of Eight (Go8), and only to some extent on the basis of student characteristics, e.g. university entrance score. Primarily, attrition seems to be a consequence of student commitment to the degree and academic self-efficacy combined with specific institutional characteristics that students identify as not meeting their needs.

Attrition in first, second and third year of studies
Of the 70 survey items listed, very few items appeared as factors associated with attrition in all six universities, either in all years of study or in any one year of study. Correlation analysis relating the 70 Section B items of the questionnaire to 'intention to leave before completing a degree' indicated notable differentiation between universities in respect of the triggers for attrition.

In Table 3 (below), which illustrates these differences, it can be seen that the only attrition triggers which span most universities and most years of study are 'lack of a clear reason for being at university'; and the feeling of having insufficient ability to succeed at university. Beyond these triggers, results appear to reflect institutional differences which can be seen especially by inspection of the strong to moderate correlations.

Before inspecting the table, however, it should be noted that somewhat arbitrary cut-off points have been used for descriptions of correlation strength, and that these reflect internal relativities rather than the relationship between correlation coefficient size and descriptions of strength usually used in reporting correlation analysis. Many different factors underpin attrition decisions in any one institution and, it seems, even for any one individual, for whom attrition appears to be the result of the aggregation of diverse factors generally followed by 'the straw that broke the camel's back'. The size of correlation coefficients, therefore, cannot be expected to be as high as might normally be expected, especially given that the analysis explored 70 potential associations with 'the intention to leave university before completing a degree'.

Table 3: Factors associated with attrition in six universities across three years of study

Behaviours, beliefs, and perceptions associated with attrition ✓✓* strong association (r>.250); ✓✓ moderate association (r>.150; <.249); ✓ weak association (r<.149)	Year of study – University 1			Year of study – University 2			Year of study – University 3			Year of study – University 4			Year of study – University 5			Year of study – University 6		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
n=	375	154	119	141	117	63	470	215	198	470	279	220	594	352	280	1245	546	445
COMMITMENT: INSTITUTIONAL																		
I am attending this university as a stepping stone to another university		✓		✓✓			✓	✓✓*	✓	✓	✓✓		✓		✓✓*	✓✓	✓✓✓	✓✓
The reputation of your university is not important when applying for a job	✓✓			✓✓	✓✓		✓		✓✓	✓	✓✓		✓	✓✓		✓✓	✓	
I attended this university because I was not accepted by the university of my choice	✓			✓✓				✓	✓✓		✓	✓✓			✓✓*	✓	✓	✓✓
I am not satisfied with the status of my university	✓	✓✓		✓✓	✓✓*		✓✓		✓✓	✓✓	✓		✓	✓✓	✓✓	✓✓	✓	
Overall I am not satisfied with my experience at university	✓✓	✓✓		✓✓*	✓✓*		✓✓	✓✓	✓✓*	✓✓	✓✓	✓✓	✓✓*	✓✓	✓	✓✓	✓✓	✓
COMMITMENT: DEGREE/COURSE																		
I do not have a clear reason for attending university	✓✓*	✓✓		✓✓*	✓✓*		✓✓*	✓✓	✓✓	✓✓	✓✓*	✓✓	✓✓	✓✓	✓✓*	✓✓*	✓✓*	✓✓
I was not able to enrol in the degree of my choice	✓✓			✓✓			✓✓	✓✓	✓✓*	✓	✓✓		✓		✓✓	✓✓	✓✓	✓
I do not know the type of occupation I want	✓✓	✓✓				✓✓*	✓✓	✓✓		✓✓	✓	✓✓	✓✓		✓✓	✓✓	✓✓	✓
COMMITMENT: TIME																		
It is difficult to balance my social life and university	✓						✓✓			✓	✓		✓			✓		✓✓
It is difficult to balance family and university							✓✓			✓						✓		
It is difficult to balance work and university							✓✓			✓✓			✓✓			✓		
I find it hard to manage my time effectively	✓✓			✓✓*						✓	✓✓		✓✓	✓		✓✓	✓	
TEACHERS: TEACHING SKILLS & ATTITUDE																		
My teachers are not enthusiastic about what they teach	✓				✓✓		✓✓	✓✓	✓✓				✓✓			✓		
My teachers are not generally good at explaining things	✓✓*	✓✓			✓✓		✓✓		✓✓	✓			✓✓	✓✓	✓	✓✓		✓
My teachers do not try hard to make the courses interesting	✓				✓✓		✓✓		✓✓	✓✓			✓✓		✓	✓	✓	✓
Teaching staff do not make it clear from the start what they expect from the students	✓✓				✓✓		✓✓		✓✓	✓✓			✓✓	✓✓		✓	✓	
My teachers are not approachable	✓✓	✓✓		✓✓	✓✓*		✓✓		✓✓*	✓✓	✓		✓✓	✓✓	✓	✓		

Behaviours, beliefs, and perceptions associated with attrition ✓✓* strong association (r>.250); ✓✓ moderate association (r>.150; <.249); ✓ weak association (r<.149)	Year of study – University 1			Year of study – University 2			Year of study – University 3			Year of study – University 4			Year of study – University 5			Year of study – University 6		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
I have difficulty understanding the accents of some of my teachers							✓											
I have had a bad experience with a university teacher				✓✓*			✓			✓✓						✓		
TEACHERS: ACCESSIBILITY & SUPPORT																		
It is not easy to get help from teaching staff when I need it	✓✓*	✓✓		✓✓	✓✓*		✓✓	✓✓	✓✓	✓✓		✓	✓✓	✓	✓✓	✓	✓	
The teaching staff are not sensitive to individual student needs	✓✓		✓✓✓	✓✓			✓✓		✓✓	✓✓			✓✓	✓		✓		
Teaching staff do not usually try to accommodate my needs	✓✓			✓✓	✓✓		✓✓		✓✓	✓✓			✓✓	✓	✓	✓		✓
Teaching staff are not usually available when I need them	✓✓	✓✓	✓✓		✓✓		✓✓		✓	✓✓			✓✓	✓	✓	✓		
My teachers do not make a real effort to understand the difficulties students may be having with their studies	✓✓			✓✓	✓✓		✓✓			✓✓			✓			✓		
COURSE DESIGN																		
My teachers do not incorporate real world examples into their teaching	✓✓				✓✓*		✓✓	✓✓	✓✓*	✓			✓	✓	✓✓	✓	✓	✓
What I am learning at university does not build on study I have undertaken in the past	✓		✓✓				✓✓		✓	✓			✓			✓		
I am not satisfied by the work experience opportunities offered by the university													✓			✓		
FEEDBACK																		
I do not receive helpful feedback on assessment tasks	✓✓	✓✓		✓✓			✓✓		✓✓	✓		✓	✓✓	✓	✓	✓		
I do not receive prompt feedback on assessment tasks	✓✓	✓✓							✓✓				✓✓			✓		
LEARNING: ENGAGEMENT & BEHAVIOUR																		
My courses are not interesting	✓✓			✓✓*	✓✓		✓✓		✓✓	✓✓			✓✓	✓✓	✓✓	✓✓	✓✓	✓
I do not enjoy the intellectual challenge of what I am studying	✓✓			✓✓*	✓✓		✓✓		✓✓	✓✓			✓✓	✓	✓✓*		✓	✓
I do not enjoy the opportunity to interact with students from different cultures							✓✓			✓	✓					✓	✓	
In group work I prefer not to work with people from different cultures																✓		
I do not participate in class discussions				✓			✓✓								✓✓	✓✓	✓	✓
I do not come to class prepared	✓✓*			✓✓					✓✓*	✓			✓✓		✓✓	✓✓	✓✓	✓✓

Behaviours, beliefs, and perceptions associated with attrition ✓✓* strong association (r>.250); ✓✓ moderate association (r>.150; <.249); ✓ weak association (r<.149)	Year of study – University 1			Year of study – University 2			Year of study – University 3			Year of study – University 4			Year of study – University 5			Year of study – University 6		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
I frequently skip class	✓✓	✓✓		✓✓			✓✓	✓✓		✓			✓			✓✓	✓	✓
I don't attend classes if notes and materials are on the website	✓	✓✓					✓✓		✓✓	✓			✓	✓	✓✓	✓	✓	✓
I do not regularly seek advice from my teachers	✓✓			✓✓					✓✓				✓			✓		
I do not work hard at university	✓✓	✓✓		✓✓*			✓✓		✓✓	✓			✓✓	✓✓		✓✓	✓✓	
LEARNING: BELIEFS & EXPECTATIONS																		
I do not have sufficient ability to succeed at university	✓✓	✓✓		✓✓*	✓✓*		✓✓	✓✓	✓✓*	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓*	✓✓	✓✓
My university workload is too heavy	✓✓	✓					✓✓				✓✓		✓✓			✓✓	✓	✓✓
I feel that my academic writing skills are not adequate for my university studies	✓✓	✓✓		✓✓	✓✓		✓✓			✓✓		✓✓	✓	✓	✓	✓✓	✓	✓✓
I find it difficult to comprehend a lot of the learning material		✓✓*		✓✓			✓✓	✓✓	✓	✓	✓	✓✓	✓		✓✓	✓✓	✓	✓✓
I have had difficulty adjusting to the style of teaching at the university	✓✓			✓✓	✓✓		✓✓		✓	✓✓		✓			✓✓	✓		
I do not need good analytical skills to do well in my studies	✓✓						✓		✓✓	✓	✓		✓		✓✓	✓		
To do well at university all I need is a good memory		✓✓										✓			✓	✓	✓	✓✓
LEARNING: ENVIRONMENT & INFRASTRUCTURE																		
The teaching rooms do not provide a high quality learning environment	✓			✓✓			✓✓			✓			✓✓*			✓		
The university's IT resources are not adequate for my learning needs	✓						✓✓			✓✓			✓✓			✓		
Class sizes at my university are too large	✓							✓✓	✓✓	✓				✓	✓✓			
The library resources are not adequate for my learning needs				✓✓			✓		✓✓*	✓✓			✓✓	✓✓		✓		
The timetabling of my classes is not convenient	✓						✓✓						✓			✓		
SOCIO-CULTURAL ENVIRONMENT & INFRASTRUCTURE																		
The university facilities are not adequate for my social needs	✓✓						✓			✓✓			✓			✓✓		
The university facilities are not adequate for my religious/cultural needs	✓✓						✓								✓			
Other students are not sensitive to the needs of students from different cultures	✓✓						✓									✓	✓	
I do not like the physical environment of the university campus	✓✓				✓✓*		✓✓	✓✓	✓✓						✓	✓		
I do not feel I belong to the university community	✓✓	✓✓		✓✓			✓✓	✓		✓✓	✓	✓	✓✓	✓✓		✓✓	✓	

Behaviours, beliefs, and perceptions associated with attrition — ✓✓* strong association (r>.250); ✓✓ moderate association (r>.150; <.249); ✓ weak association (r<.149)	Year of study – University 1			Year of study – University 2			Year of study – University 3			Year of study – University 4			Year of study – University 5			Year of study – University 6		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
I find the university to be a lonely place	✓✓	✓✓		✓✓			✓			✓✓			✓✓			✓✓	✓	
I don't find it easy to travel to university				✓✓	✓✓		✓✓		✓✓*					✓		✓		
ADVISORS: ACCESSIBILITY & SUPPORT																		
I have not received good advice from the university about enrolment options in my degree	✓✓						✓✓		✓				✓✓			✓		
I did not receive good advice from a careers adviser at my university about choosing my degree	✓												✓					
I did not receive good advice from my school about choosing my degree										✓		✓✓	✓					
It is not easy to get help when I need it from administrative staff	✓✓						✓✓		✓✓	✓			✓	✓	✓	✓		
The administrative staff are not sensitive to individual student needs	✓✓*						✓✓			✓				✓		✓		
Administrative staff are usually not available when I need them	✓				✓✓		✓✓		✓✓*				✓			✓	✓	
Having a mentor at university would not be useful																✓		
PERSONAL CIRCUMSTANCES																		
I am concerned about my emotional health	✓✓	✓✓		✓✓			✓		✓✓			✓	✓✓	✓	✓	✓✓	✓	✓✓
I am concerned about my physical health		✓✓					✓						✓			✓		
I am often homesick	✓		✓✓*				✓				✓✓				✓✓	✓	✓	✓
I have financial problems							✓			✓✓			✓			✓	✓	✓
I am worried about the debt I am accumulating while I am attending university		✓✓*				✓✓*	✓✓			✓✓			✓✓	✓		✓		

A follow-up analysis at one of the six universities, using the data gathered in 2008, 2009 and 2010, indicates that, not only are factors in attrition differentiated by year of study, but also by semester of study. Table 4 presents these differences, with factors associated with attrition in relation to Tinto and Pusser's (2006) framework for institutional action.

Table 4: Factors associated with attrition in one university, grouped by year and semester of study

Focus of institutional action	Factor	Year of study			Semester of study				
		1st year	2nd year	3rd year	1st year 1st sem.	1st year 2nd sem.	2nd year 1st sem.	2nd year 2nd sem.	3rd year 1st sem.
Commitment	Commitment to institution	✔	✔		✔		✔		
	Commitment to degree/course	✔	✔		✔	✔	✔	✔	
	Commitment: time	✔			✔	✔			
Expectations	Teachers' skills/attitude	✔	✔		✔	✔	✔	✔	
	Teachers' accessibility/support	✔	✔	✔	✔	✔		✔	✔
	Course design	✔		✔	✔	✔			✔
Feedback	Feedback on assessment	✔	✔		✔		✔	✔	
Involvement	Academic engagement/behaviour	✔			✔	✔	✔		
Support	Academic self-efficacy/expectations	✔	✔		✔	✔	✔	✔	
	Learning environment/infrastructure	✔			✔	✔			
	Socio-cultural environment/infrastructure	✔	✔		✔	✔	✔	✔	
	Course/career advice	✔			✔	✔	✔	✔	
	Personal circumstances	✔	✔	✔	✔		✔	✔	✔

While it is not appropriate to extrapolate these specific semester-by-semester results to other universities, the finding that factors associated with attrition are differentiated by year and semester of study is generalisable to other institutions. Universities seeking to implement effective retention programs need to investigate and respond to such differences.

International versus domestic student attrition
Factor analysis was used to derive from the data five factors associated with experience of university: engagement, quality of teaching, facilities and services, self-efficacy, and university/life balance.

The aggregated data for all six universities suggest some difference in the factors associated with domestic and international students dropping out, but no difference in the factors associated with their sense of satisfaction or belonging. For international students, intention to leave is more strongly associated with poor facilities and services, while for domestic students, intention to leave is associated with lack of engagement and, to a lesser extent, with low self-efficacy and difficulties related to university/life balance. In the responses of each of the two groups to issues of teaching quality, there are similarities but also differences primarily related to expectations regarding teaching staff approachability, availability and helpfulness.

Table 5 (below), which focuses on the relationship of likely attrition to issues of teaching quality, illustrates these differences.

Table 5: Teaching quality factors that influence international and domestic students' decision to leave university without completing a degree

Behaviours, beliefs, and perceptions associated with attrition ✓✓* strong association (r>.250); ✓✓ moderate association (r>.150; <.249); ✓ weak association (r<.149)	International students						Domestic students					
	Uni 1	Uni 2	Uni 3	Uni 4	Uni 5	Uni 6	Uni 1	Uni 2	Uni 3	Uni 4	Uni 5	Uni 6
n=	69	68	171	331	204	438	580	239	713	639	1022	1792
My teachers are not enthusiastic about what they teach	✓		✓✓*	✓✓			✓		✓	✓	✓	
My teachers are generally not good at explaining things			✓✓			✓✓	✓		✓✓	✓	✓✓	✓
My teachers do not try hard to make the courses interesting			✓✓	✓		✓			✓✓	✓	✓	✓
Teaching staff do not make it clear from the start what they expect from the students						✓	✓		✓	✓	✓✓	✓
I don't receive helpful feedback on assessment tasks	✓✓*		✓✓*	✓✓		✓	✓✓		✓		✓✓	✓✓
I don't receive prompt feedback on assessment tasks				✓			✓	✓✓			✓	✓
My teachers are not approachable	✓✓*		✓✓	✓✓			✓	✓✓	✓	✓	✓✓	✓
It is not easy to get help from teaching staff when I need it			✓✓	✓	✓✓	✓	✓✓	✓✓	✓✓	✓	✓✓	✓
The teaching staff are not sensitive to individual student needs				✓			✓✓	✓	✓✓	✓	✓✓	✓
Teaching staff do not usually try to accommodate my needs	✓✓*		✓✓	✓✓			✓✓	✓	✓	✓	✓✓	✓✓
Teaching staff are usually not available when I need them				✓		✓	✓	✓	✓✓	✓	✓✓	✓
My teachers do not make a real effort to understand the difficulties students may be having with their studies			✓✓*	✓		✓	✓	✓	✓	✓	✓	
My teachers don't incorporate real world examples into their teaching			✓✓*	✓	✓	✓✓	✓	✓	✓		✓	✓
I have had a bad experience with a university teacher			✓✓*			✓✓				✓		

In general, the data collected between 2008 and 2010 for this study suggest that, although there may be some general points of difference in the factors influencing the attrition, satisfaction and sense of belonging of domestic and international students, institutional characteristics play a large part in determining the experiences (and responses) of these two student groups. For example, comparison of 2008–2009 data from four of the six universities indicates:

1) factors affecting intention to leave are similar for domestic and international students: at one university they are the same; at two others they are different only in that domestic student, but not international student, intention to leave is associated with lack of engagement and self-efficacy; and at the fourth university they are the same except that lack of engagement is a predictor of international student attrition but not domestic student attrition

2) the adequacy of facilities and services influences international student satisfaction in two of the four universities, but domestic student satisfaction in the other two

3) quality of teaching is a major influence on domestic and international students' sense of belonging in all four universities. In two of the four universities self-efficacy and facilities and services influence sense of belonging of domestic student but not that of international students.

Demographic factors influencing attrition
Detailed analysis of demographic factors influencing attrition has not yet been completed, but preliminary analysis indicates that, within each university, the factors associated with attrition are different for students enrolled part-time and full-time and that they also differ on the basis of time spent on campus and on average grades. Preliminary analysis also suggests that having to take a loan or engage in full-time work to fund studies is a greater attrition risk factor in most universities than is being in receipt of Centrelink benefits (which may be seen as a proxy indicator for low socio-economic status). In further analysis it is planned to explore the relationship between experience of university and factors such as being the first in family to attend university, having carer responsibilities, and being enrolled as an internal, an external or a mixed-mode student.

Longitudinal analysis of factors in attrition
With the three-year period of data collection only recently completed, detailed analysis of longitudinal data has yet to be undertaken. It is anticipated that this will be published in the future. Nevertheless, preliminary analysis of data gathered from the cohort that completed Year 1 in 2008, Year 2 in 2009 and Year 3 in 2010 supports the earlier findings of differentiation from year to year in the factors influencing attrition decisions. However, although university-specific characteristics are still evident from these data, the range of factors related to attrition for the tracked cohorts is generally reduced when compared with the range of factors underpinning the attrition decisions of all first year students, all second year students, and all third year students who completed the survey over the three-year period. This is not surprising given the larger sample size, but changes in responses may also in some cases be the consequence of institutional changes, as appears to be the case in the university which mid-way through the data collection period changed from a one-hour lecture/two-hour tutorial format to a two-hour lecture/one-hour tutorial format. Responses subsequent to this change indicate an increased tendency to skip class and a greater tendency towards the belief that analytical skills are not needed to do well at university.

The use and usefulness of student and personal support interventions
Analysis of 2009 data for all universities indicates that, in general, when students use personal support interventions these are mostly seen as very useful. However, data also indicate that many, and often the majority of, students have either not used or are not aware of the support services available. Preliminary analysis of 2010 data indicates similar patterns. Table 6, which presents students use of and perceptions of the usefulness of a range of personal and academic support interventions, highlights the patterns discovered.

Table 6: Students' perceptions of the use and usefulness of student support services

Student support intervention: # Haven't used + Very useful (used by student)	Uni 1 %	Uni 2 %	Uni 3 %	Uni 4 %	Uni 5 %	Uni 6 %
Academic writing and presentation skills workshops	62[#] 68[+]	77 50			62 54	55 58
Learning skills workshops	66 57	73 45	64 36			61 50
Academic skills online	49 65	58 54	58 40	68 45	62 53	40 62
Individual consultation with academic skills adviser	82 67	75 40	66 37		65 54	72 53
Academic skills drop-in session (at library)	82 58	77 40		65 43		72 54
Academic skills drop-in session (at student services)	83 68	81 33		65 46		76 48
In-class academic skills workshop (during tutorial/lecture)	50 70			63 38	45 52	40 52
Out-of-class academic skills workshop (with academic skills adviser)	78 60	78 61		67 44	70 47	75 48
Face-to-face consultation with library staff	62 45	24 67		33 64	37 69	29 73
Telephone consultation with library staff	82 65	75 41			75 49	76 51
Email request for help or service	75 66	67 52		65 46	66 54	69 22
Library tutorials	66 71	43 57		56 46	62 57	60 52
In-class library tutorial (provided by librarian)	66 65	38 56		54 38		58 55
Library presentation provided at a lecture	56 65	36 66		57 36		44 50
Health/wellbeing services	90 52	70 64	60 39	71 53		75 65
Counselling	85 63	82 41	61 37	77 49	79 49	80 57
Welfare or financial support	88 52	86 25	62 42			82 51
Off-campus accommodation	86 62	85 27			87 45	84 46
Disability support	94 57	87 39	66 39	87 32	86 48	88 44
Support with grievances and appeals	95 55	88 43		85 32		85 40

Notes: 1) 'Very useful' represents the top third of aggregated responses on a nine-point scale;
2) Responses were strongly skewed towards the positive end of the nine-point scale;
3) Data are missing if not collected or if a service comparable to others could not be identified.

Summary
Our findings strongly indicate that, while some factors associated with attrition may generally be more salient than others, factors underpinning attrition tend to be university-specific and reflect student characteristics as well as their responses to the specific institutional culture and environment.

Detailed analysis and further explanation of findings from the Whole of University Experience project are available in Appendices 8.3, 8.4 and 8.5 which present some of the articles from the project accepted for publication.

4.2   Outcomes: Project deliverables

Project deliverables, as specified in the Whole of University Experience project application for competitive grant funding, encompassed:

- a report to the ALTC on factors influencing retention and attrition over students' three years at university, and on the longitudinal impact of student support interventions

- presentation of findings to a national audience at the annual HERDSA conference and other relevant discipline conferences

- publication of articles in four nominated journals

- the development within partner universities of teaching research collaborations leading to publication of papers relating to the impact of university-specific student support interventions.

The project plan subsequently developed also listed journal articles, conference presentations and the final report as project deliverables. To these were added the project website and Endnote library, which proved to be important tools supporting the achievement of the other deliverables. Additional also in the project plan was the specification of a project-related symposium, which has been manifested as a state-based workshop; a benchmarking tool; and internal dissemination activities within each partner university (see Section 5.1).

Fundamentally, the project has produced all but one of its anticipated deliverables, although the journals and conferences chosen for dissemination mostly differ from those nominated in the grant application, as does, to some extent, the focus of the publications. Unanticipated opportunities to present to special interest groups, such as Associate Deans (Teaching and Learning) and education librarians, have also occurred. Although the bulk of project publications draw on data relating to factors underlying attrition, some unanticipated publication outcomes have materialised as a consequence of the process of project implementation. These are a paper on leading, managing and participating in an ALTC grant (Appendix 8.6), and a paper on development of a research-teaching nexus (used in this case for the construction of WoUE questionnaire drafts) whose authors include two Honours students involved in the questionnaire construction while third year undergraduates (Appendix 8.2).

The one deliverable that has not been delivered is the development of wider teaching research collaborations within partner universities leading to the publication of papers. That is, although articles authored by project team members have been submitted to and accepted by journals and conferences, none of these articles has involved collaborations beyond the project team. This circumstance is partly because data adequate for the production of quality conference papers and publications only became available in the second year of the project, leaving a very short time period in which to build such collaborations, and partly because

significant demands on the time of those directly involved in the project have precluded systematic development of the intended wider collaborative and mentoring arrangements. Upon reflection, perhaps' the net was cast too wide' to anticipate that, given the available human and time resources, we could implement a project of this size simultaneously building a community of academics interested in working with the data generated.

In summary, in addition to this report, the project has produced the following deliverables:

Journal articles

Willcoxson, L, Cotter, J & Joy, S (2011) 'Beyond the first year experience: the impact on attrition of student experiences throughout undergraduate degree studies in six diverse universities', *Studies in Higher Education* vol. 36, no. 3. (A* in ERA list)

In the face of difficult economic circumstances, increased competition and student diversity, attrition and retention have become issues of great significance to higher education institutions seeking to survive. A large body of work has explored the relationship between attrition and the first year experience, but there has been little focus on students' experience of university in subsequent years despite the fact that later year attrition counts for approximately half of all attrition. This empirical research study examines students' experience of university in six diverse universities, across the three years of business degree studies. It finds that the factors correlated with intention to withdraw from university studies are differentiated by year of study and further differentiated by the university attended. The implications of these findings are discussed and a framework for institutional action is subsequently used to outline the dimensions of a relevant retention program.

Willcoxson, L and Wynder, M (2010) 'The relationship between choice of major and career, persistence, and experience of university', *Australian Journal of Education* vol. 54, no. 2. (B)

This study builds on earlier findings that clear choice of major and clarity of career direction is associated with persistence at university. Data obtained from a survey investigating business students' experience of university were correlated with intention to leave and examined with reference to the experience of two distinct major/career groupings – those students who had committed themselves to a career-related major, either accounting or marketing, and those who were enrolled in the generic bachelor of business, which is identified with no specific business careers. Findings suggest that generalisations, even within a single faculty, may be inappropriate for our study identifies differences in the risk factors associated with each of these three of the many majors within a faculty of business. More research is needed to identify further differences in the factors that influence attrition from different majors so that interventions can be focussed and effective.

Willcoxson, L 'Factors affecting intention to leave in the first, second and third year of university studies: a semester-by-semester investigation', *Higher Education Research and Development* Accepted. (A)

As most research into attrition and retention has focused on attrition during the first year of studies, we know little about the relationship between students' experience of subsequent years and their decisions to withdraw from university. This paper addresses this gap in research by examining the relationship between students' intention to withdraw from studies and their experience of university in each of the three years of business degree studies. This empirical research indicates that the factors affecting intention to withdraw are differentiated not only by year but also by semester of study.

Willcoxson, L, Manning, M, Johnston, N & Gething, K (2011) 'Enhancing the research-teaching nexus: Building teaching-based research from research-based

teaching', *International Journal of Teaching and Learning in Higher Education* vol. 23, no. 1. (B)

Definitions and practical interpretations of the research-teaching nexus are various, but almost invariably the link between teaching and research lies in the direction of transferring research into teaching rather than vice versa. This transfer is achieved by using research to inform teaching and, less frequently, by engaging students in research. Usually these students are final year undergraduates and the research project is purpose-built to develop in students the desired course learning outcomes. This paper reports an alternative realisation of the teaching-research nexus. It presents a case study of teaching that was informed by research and engaged both first year and final year undergraduate students in research, using problem-based learning. Subsequently, the research undertaken by the students as part of their learning process directly informed development of a large, government-funded research project, thus completing an unusual two-way relationship in which research underpinned teaching and learning activity, and teaching and learning activity underpinned research.

Willcoxson, L, Kavanagh, M & Cheung, L 'Leading, managing and participating in inter-university teaching grant collaborations', *Higher Education Research and Development* Accepted. (A)

This paper examines the leadership and management of multi-university collaborations funded by national teaching grants. It commences with a review of literature relating to stages of project development, critical operational issues, impediments to collaboration, and the leadership and management of teaching grant collaborations. Finally, it explores critical success factors in teaching grant collaborations from three perspectives – that of leader, manager and team member.

Copies of these journal articles are included in the appendices with the written permission of the editor of each of the journals concerned.

Conference papers, external presentations, workshops and dissemination

Leask, B, Willcoxson, L, Hibbins, R & Troedson, D (2009) 'What really matters? Factors affecting international and domestic student retention and satisfaction'. *Presentation at the Australian International Education (AIEC) Conference*, Sydney, 13-16 October.

It is in a university's best interests, as well as the best interests of students, if those who commence study stay to complete it. This is increasingly important when the direct and indirect costs associated with international student recruitment and the provision of services to this group are considered. This paper reports on research undertaken as part of a project funded by the Australian Learning and Teaching Council (ALTC). Quantitative and qualitative data collected from six universities across Australia in 2008 and 2009 have been analysed to identify the relative influence of varied factors on the decision to withdraw from or remain at university. For the purposes of this paper, hierarchical regression analyses have been conducted for both international and domestic students. This has allowed a comparison of the influence of factors such as university status, facilities and services provided, teaching methods, student services and student perceptions of their academic skills and abilities across a range of different types of universities. The results have implications for marketing and recruitment, academic development and student service provision.

Kavanagh, M, & Willcoxson, L (2009) 'Is one bad experience all it takes? The effect of student experience, learning and personal support services on attrition'. *Presentation at the Australia and New Zealand Student Services Association (ANZSSA) Conference*, Brisbane, 6-9 December 2009.

In recent years the Australian Government established a Learning and Teaching Performance Fund from which it allocates money to universities in support of their teaching

initiatives. The funding allocation decision is based on seven indicators, two of which are related to retention and progression rates across all years of undergraduate study.

This paper presents the results of research conducted as part of a three-year Australian Learning and Teaching Council-funded project. It examines associations between student experience and learning/personal support services items and a) likelihood of leaving university and b) overall satisfaction with the student experience. Both quantitative and qualitative methods are used to present results for each university, highlight differences, and draw conclusions for the entire sample. In general, the findings indicate that students who responded positively (negatively) regarding experience with the university are less (more) likely to leave university. However, interestingly, while overall satisfaction with the university experience is an important determinant of whether to leave university before degree completion, it is not the only important consideration.

Willcoxson, L, Cotter, J & Joy, S (2009) 'Beyond the first year experience: Factors associated with attrition in first, second and third year in six diverse universities'. *Presentation at the Australia and New Zealand Student Services Association (ANZSSA) Conference*, Brisbane, 6-9 December 2009.

In the context of increasingly diverse student populations and increasing competition for students, attrition and retention have become issues of great significance for universities. To date, most research into attrition and retention has focused on the first year experience and as a consequence academics, student services staff, and administrators have built a good understanding of the factors underlying first year attrition, and how to deal with these. There has, however, been little attention paid to students' experience of university in subsequent years, despite the fact that later year attrition counts for approximately one half of all attrition. In this presentation, we draw on our research conducted as part of a three-year Australian Learning and Teaching Council-funded project to explore students' experiences across the three years of business degree studies in six diverse universities. We will provide evidence that the factors correlated with intention to withdraw from university studies are not only differentiated by year of study, but also differentiated by the university attended. We will discuss the implications of this differentiation for the delivery of student services, and consider what changes are needed to proactively meet the needs of second and third year students as well as those of first year students.

Willcoxson, L (2009) 'Why do Business students drop out? Evidence from first, second, and third year students'. *Paper presented at the Australia and New Zealand Academy of Management (ANZAM) Conference*, Melbourne, 2-5 December 2009.

In Australia we have learnt a lot about attrition in the first year of university studies but little about attrition in subsequent years, despite government statistics showing that the combined second and third year attrition rate is almost equal to the first year attrition rate. There has also been little systematic study of attrition amongst business students. This paper reports research into the relationship between business students' intention to withdraw from studies and their experience of university in the first, second, and third year of studies. Findings indicate that factors affecting intention to withdraw from a business degree are differentiated by year and semester of study. This suggests that, to be effective, retention programs need to be similarly differentiated.

Joy, S & Willcoxson, L (2009) 'Strategies to address attrition in first year and beyond: lessons from the Whole of University Experience project'. *Workshop facilitated for Victorian Associate Deans Education/Teaching*, Monash University, 20 November 2009.

This workshop/lunch provides an opportunity to hear about some of the results from a six-university longitudinal attrition and retention study of undergraduate business/commence students.

The session will enable you to discuss the research with two of the researchers and to meet and share experiences with other Associate Deans Education/Teaching from other Victorian Universities. You should know more about the causes of student attrition in each year of undergraduate study, and have developed some evidence-based, practical strategies for

dealing with attrition in your own university.

The session will start by discussing what has been learnt about attrition from the ALTC-funded 'Whole of University Experience' project, drawing on data gathered from first, second and third year business students in six diverse universities over a two-year period. A brief presentation will provide insights into the factors that influence students to drop out, and differences in attrition factors related to year and semester of study.

Against this background we will explore together what can be done to increase the retention of first, second and third year students in different universities. During the second hour we will have lunch and the chance to continue discussion!

Willcoxson, L (2009) 'Is attrition and retention just a first year issue?' *Presentation to Queensland University Libraries Office of Cooperation (QULOC) Education Practitioners*, Sippy Downs, 18 September 2009.

Willcoxson, L (2009) 'The Whole of University Experience Project: Lessons on attrition from first year and beyond'. *HERDSA News*, vol. 31, no. 3, 10-12.

Willcoxson, L, Kavanagh, M & Hibbins, R (2010) 'Student attrition: Exploring what we know; Strategies for reshaping what we do'. *Workshop facilitated at the Higher Education Research and Development Society of Australasia (HERDSA) Conference*, Melbourne, 6-9 July 2010.

The aim of this workshop is to explore the factors that underpin attrition throughout the three years of degree studies and, on this basis, develop strategies for addressing attrition within participants' own faculties and universities. After a brief overview of the Whole of University Experience project, funded by the ALTC, facilitators of the workshop will present a series of five-minute vignettes highlighting key insights from the project. Each vignette, focusing on a specific student demographic group or aspect of institutional responsibility, will be followed by a 15-20 minute exploration of the implications for participants' own practice or for practices within their universities. A final summary session will draw together the various lessons from the workshop, assisting participants to sketch their own institutional priority action plan.

By the end of the workshop participants should:

- better understand the journey and challenges experienced by students as they progress through the three years of their degree studies;

- be able to identify aspects of students' experience of particular relevance to their own and their institution's practices, and

- have developed and prioritised a set of personal and/or institutional actions designed to address attrition.

Willcoxson, L (2010) *Presentation on the Whole of University Experience project findings to the ABDC Associate Deans Teaching and Learning meeting*. Melbourne, 9 July 2010.

State-based workshops in Western Australia and South Australia are scheduled to take place after the end of the project funding period.

4.3   General and university-specific impacts: KPIs

The project outcomes specified in the funded grant application were:
- Identification of the relative influence of varied factors on the decision to withdraw from or remain at university over a three-year period, and what might be done to mitigate critical negative influences

- Better understanding of the impact of student support interventions over time and of the characteristics of successful student support interventions

- Development of a profile of students at risk of withdrawing throughout the course of their studies and identification of the needs of different market segments

- Changes within each participating university to some of the learning and personal support interventions examined

- Establishment of a teaching research concentration within each participating business faculty

- Growth of a nationwide community of practice which shares experience relating to retention, attrition and student support.

In the project plan, these intended outcomes were re-cast as key performance indicators (KPIs - see Section 3.2) to provide a set of measurable intended impacts enabling evaluation of the project's performance in relation to its stated aims.

In line with the differing foci of the project's aims, some KPIs in the project plan relate to impacts external to partner universities and some relate to internal impacts within partner universities. This section commences with discussion of general impacts, those external to partner universities, before presenting an outline of measurable project impacts within each partner university.

General impact of the project

The Whole of University Experience project plan specified the following outcomes intended to have an impact on the university sector as a whole:

1. Development of a benchmarking tool

2. Dissemination of information about retention impact factors to national university clusters

3. Hosting of a symposium on project findings for partner universities to share the outcomes of the project with existing communities of practice and other ALTC project groups related to retention.

As it is not possible for those involved in the WoUE project to influence non-partner university responses to project findings or use of materials developed during the project, the general impact of the project can be defined only in terms of what has been produced for the sector relative to the KPIs listed in the project plan. Impact in this case, necessarily relates to availability rather than uptake of information and materials.

Under these terms, the following impacts can be identified:

1. Analysis of project data is expected to lead to development of a benchmarking tool (currently under development), which will be available for universities seeking to benchmark performance in a range of factors associated with attrition. A journal article describing the tool will make it available both nationally and internationally.

2. Dissemination of information about factors associated with attrition and retention has occurred through conferences targeting those involved in international education; student services; business faculties; higher education teaching and staff development; meetings of Associate Deans (Teaching and Learning) from business faculties; and state-based workshops. Three journal articles specifically relating to factors underpinning retention and attrition have been accepted for

publication or already published in international journals. The six universities partnered to the project span the range of national groupings – Australian Technology Network, Group of Eight, Innovative Research Universities, New Generation Universities – and, thus, project findings have sector-wide relevance. However, dissemination activities have not specifically targeted each of these national groupings because the presentation of comparative data has provided a more persuasive picture of how university characteristics influence attrition.

3. Organisational and cost factors led to the decision to develop state-based workshops and a workshop at a national conference rather than the planned large symposium. The sharing of project findings within states and with existing communities of practice such as the Business Associate Deans (Teaching and Learning) creates a greater possibility of ongoing communication between those interested in investigating and addressing attrition.

University-specific impacts of the project

The key performance indicators (KPIs) listed against the project aims relevant to partner universities are expressed almost entirely as demonstrable impacts within partner universities as a consequence of the project. These KPIs are:

1. Improved student awareness of and access to key support interventions

2. Adoption of recommendations from WoUE project by partner universities

3. Evidence of project recommendations in key strategy documents in the partner universities

4. Take-up of recommendations and identified changes emerging from project within partner universities

5. Pre- and post-intervention change in student perceptions (measured by successive WoUE project surveys)

6. Definition of generic categories of 'at risk' students

7. Development of new teaching and learning (T&L) research collaborations within and across partner universities;

8. Quantity and quality of published journal articles or presentations

9. Actions implemented as a consequence of meetings and contact.

Across the six universities partnered to the project, achievement of the KPIs has been variable, as potential project impacts have necessarily been affected by issues such as institutional culture and priorities; institutional leaders' recognition of a problem and willingness to act; networks within the institution; personnel changes at senior organisational levels and in the project team; and, inevitably, the time available to design and effect change.

In the following paragraphs the impact that the project has achieved in each partner university is outlined with reference to the KPIs.

Griffith University
Particular work is being undertaken on the needs and expectations of sessional staff who teach, who are tutors and head tutors resulting from the finding that tutors are an important point of contact for students wanting assessment and course information. Reports are being disseminated and implications for the induction of sessional staff are being considered. New induction programs are being developed and implemented.

The importance of satisfaction with diverse groups in group work is being developed into workshops on mentoring 'home' and international students on group work skills. This work is being done in communities of practice and materials are being entered in resource banks.

Monash University

Monash University is reviewing induction and ongoing training for sessional teaching staff to ensure that first year tutorials, where there are more opportunities to provide one-on-one teaching and small group discussions, focus on building supportive relationships between staff and students and facilitate group work to foster friendships.

Tutors are also provided with training in cultural and cross-cultural issues to facilitate discussion in culturally diverse classrooms.

Elements of the faculty approach have been adopted across other faculties of the university through sharing of resources and dissemination of best practice.

Murdoch University

The involvement of Murdoch University in the project raised awareness of 'things we could do better' in supporting the campus life of students. Although the project outcomes identified a small percentage of student attrition, the qualitative outcomes suggested that there were key areas for improvement and future consideration. These areas include:

- *Support services*

  On the whole it appears that Murdoch provides a range of services which are considered useful by the students. However, a number of areas for improvement were noted. These include:

  - the types of academic skills courses provided by the library
  - the usefulness of the career connections services
  - the communication with student administration and/or student support services for information about programme requirements.

  To this end, the student support services and student administration centre have undergone a significant overhaul in providing information to students in a more streamlined manner to reflect these needs.

- *Orientation and student engagement activities*

  Participation in the study identified that students do not begin their relationship at the point of enrolment but rather by the initial contact with the university. Hence, providing information to parents, partners and friends; additional course advice sessions; and school social events, i.e. barbecues, have been added to already established orientation day activities to engage students.

- *Discipline-specific strategies*

  The project outcomes established that student retention was a function of discipline or major studied. The outcomes specifically allude to the need for greater development of 'soft' skills to help students achieve a greater work/study/life balance. As a result, the scaffolding of unit offerings has been a focus of the Business School's Teaching and Learning Committee.

- *University and business school branding*

  It is important to note that students felt that the university brand was important to job prospects. Therefore, an outcome of this study has been for Murdoch University to focus on the university and business school brands. The building of

the business brand is a key KPI for Murdoch University's *Strategic Plan 2010–2015*.

University of South Australia

The impact of involvement in this project at UniSA has been significant. Changes to service delivery and heightened awareness of the need to continue to focus on key service and resource areas have been enhanced in both the wider university and within the Division of Business. The results of the surveys and the follow-up interviews provided a useful trigger for data based discussions with the Pro Vice-Chancellor/Dean of Business, the Division Executive Committee and individual heads of school within the Division of Business. The key message for these groups was the crucial importance of the quality of teaching as a factor affecting retention and the need to resource services to support learning at a divisional level as well as at a university level. Thus, while the findings were in some ways not unexpected and, in many instances, confirmed findings of other student surveys, involvement in the project provided an opportunity for triangulation and confirmation of the importance of improving resourcing and changing aspects of service delivery in some areas.

As a result we have been able to implement some significant changes and improvements to resourcing and service delivery at both divisional and university level in the last two years:

- A trial Student Engagement Officer position within the office of the Dean Teaching and Learning was extended for a further two-year period and is likely to be further extended. This position has been established to assist in creating a greater sense of community on campus. The positions are always filled by either current or recently graduated students.
- This position was 'split' into two 0.5 positions, to ensure a focus on the discrete and different needs of international and domestic students as well as on strategies to enable and facilitate greater interaction between these two groups. This was in response to the findings in the data that, while the factors affecting attrition were in some ways similar for both groups, there were also some important differences.
- The allocation of some dedicated social space on our cramped city campus in which students can use the newly purchased range of leisure equipment such as a Wii, a Table Tennis table and a Foosball table. This initiative was in response to students indicating that the campus lacked a sense of community and belonging.
- Free textbooks in first year core courses were provided to students from some equity groups in 2010. This was a significant allocation of funding from within the Division in direct response to feedback in the surveys and interviews that financial issues were a significant factor in attrition for students from these groups. The initiative was conducted on a trial basis. The evaluation of its impact will determine whether or not it is continued in its current form or in a modified form in 2011.
- The library extended its opening hours to allow students greater access to computers and study spaces after hours.
- The location of computers on campus and the opening hours of computer rooms was advertised more widely to students at critical times. The need for more computers to be made available on campus was once again put on the agenda of the Facilities Management Unit.

University of Southern Queensland

An effort has been made to inform students of the support services available to them via the university website and email correspondence. As yet, the success of these initiatives has not been determined.

Some progress has been made towards adopting some of the recommendations of the WoUE report that was prepared based on 2008 data. Further recommendations have been made based on the 2009 data, while the 2010 data have not yet been fully analysed. Examples of the progress made to date include:

- Assessment practices of courses with high attrition rates have been reviewed resulting in reduced attrition rates for the majority of these courses
- There has been an investigation of learning and assessment methods to more fully engage distance education students, including assessment that incorporates generic skills development
- Students are extremely happy with the introduction of Camtasia lecture/PowerPoint recordings.

Generic categories of at-risk students have been identified as follows:

- Carer responsibilities are an issue primarily on external domestic students – 37 per cent have some carer responsibilities
- Employment-related pressures are primarily an issue for domestic students. Employment hours are greatest for external students; however, work pressures are a significant retention factor for domestic on-campus students.
- Course load pressures are highest for international external students; however, course load pressures are also a retention factor for domestic external students.

University of the Sunshine Coast

USC's involvement in the project raised awareness of attrition and retention as issues of concern for staff at all levels of the organisation. Presentation of WoUE findings specifically relevant to USC in 2008 (to all senior staff), 2009 (to all staff), and 2010 (to senior staff and Faculty of Business staff) underpinned changes designed to better meet the needs of students across the university. Informed by WoUE findings, the Student Services section developed targeted strategies for increasing student awareness of and access to key support interventions:

- a Student Engagement Officer was appointed
- a 'campus life and student groups' website was created
- students were given access to a 'student club' facility and a greatly increased number of student social activities are offered
- a 'just-in-time' academic skills drop-in session for business students was established
- in-class library skills and career guidance sessions were expanded.

In 2009 the *USC Learning and Teaching Plan* was revised to include a strategy specifically related to retention: 'Strategy 3.1 - Improve student retention rates through developing and implementing early intervention programs for 'at risk' students across all faculties'. This strategy was tied to the development of a *USC Student Retention Plan*, the actions in which are directly informed by the findings of the WoUE project about attrition triggers at USC. The actions associated with the Retention Plan will involve all USC functional areas working collaboratively.

Data obtained through the WoUE project demonstrating the salience of different attrition risk factors in different years of study, complement data obtained by the USC Strategic Information and Analysis Unit (SIAU) indicating the relationship between increased attrition risk and specific demographic factors. Both these

sources of data were used in the development of the *USC Student Retention Plan*. Further analysis of the WoUE demographic data, which is more finely granulated than the SIAU demographic data, will enable USC to identify interactions between specific attrition risk factors and provide more targeted assistance to students.

Although teaching research collaborations associated with the WoUE project have yet to be developed within USC, one such potential collaboration has been identified. It is expected that the rich and extensive data obtained through the project will continue to provide evidence to guide institutional decision-making and will be a basis for academic publication, for at least a year or two beyond the formal life of the project.

4.4 Critical success factors – review of project outcomes and impacts

Lessons learnt

In the process of attempting to achieve project outcomes and impacts several key challenges emerged which had to be addressed and from which the following lessons were learnt:

Make time
As with project implementation, the issue of time remains a constant challenge. Unless each project team member assumes responsibility for achieving specified outcomes, and drives the achievement of these outcomes, competing demands inevitably mitigate against progress towards defined outcomes and deliverables.

Facilitate genuine input from and learning by all partners
If all partners are to learn from and truly be part of the project, it is incumbent upon the lead institution to facilitate sharing and input, capture and dissemination of ideas; and documentation of shared understandings, outcomes and deliverables. All project partners, including the lead institution, must play an active role in the development of outcomes and deliverables.

Disseminate internally from the inception of the project
For project outcomes to have resonance and be sustainable within the sponsoring university, it is important to begin building widespread intra-institution awareness of project goals and processes as soon as the project commences, and to continue disseminating information throughout the life of the project.

Document activity, progress and outcomes on a regular basis
This is especially important in a project which depends upon others across the university to address issues identified through analysis of data gathered from students. What has been done in response to awareness-raising presentations of data is often not perceived by those implementing change to be a direct outcome of the project and, as a consequence, a project's impact may, to some extent, need to be inferred rather than demonstrated in terms of cause and effect.

Distribute funds as evenly as possible
While a centralised plus decentralised model of project management makes it easier in some ways to oversee and facilitate project outcomes, the common university practice of rewarding academic staff for the funds they bring in suggests that greater incentive may be provided, and greater responsibility for outcomes be taken in partner institutions, if funds are distributed evenly between partners. Such a

strategy, however, necessarily creates other project management issues related to consistency of vision and complementarity, rather than duplication, of work done.

Anticipate and provide for harvesting of outcomes beyond the life of the project
In projects such as this, the time needed to analyse and write about data gathered is constrained during the life of the project by the many project development tasks and other academic commitments. The data retain their value for several years beyond the life of the project and, thus, if the potential research outcomes and institutional benefits from the project are to be fully realised, it is important to anticipate and provide for harvesting of outcomes for some time after the official project completion date.

Critical success factors – achieving project outcomes and impacts

From the lessons learnt while trying to achieve the project outcomes and impacts there emerged a few factors perceived to be critical to the achievement of project outcomes and impacts in general. These are:

Enthusiasts with the power to get things done
When selecting partner staff and universities it is important to seek those who genuinely care about the outcomes of the project and have the time and energy to make sure things happen as and when they should. It is also helpful to have within each partner university a team member with identifiable position power, as this lends credibility to the project and facilitates change arising from the project.

Specified person/s to act as driver of outcomes
In the face of competing demands on time, the achievement of project outcomes, especially those which take time to develop such as journal publications, depends upon specified individuals taking responsibility for ensuring outcome delivery. In a large project, responsibility for driving outcomes needs to be spread across members of the project team.

Sharing of project benefits
Unless project team members perceive that there is an equitable distribution of recognition, rewards and opportunities arising from the project, their motivation to contribute to the development of project processes and outcomes is likely to be reduced and team cohesion is likely to be affected. Achieving an equitable distribution is, nonetheless, a difficult thing to do in practice, given that opportunity does not equate with outcome, i.e. even when project team members agree to drive outcomes such as publications they may not find the time available and this role may subsequently need to be taken by others in order to fulfill project deliverable commitments. Under these circumstances, perhaps the key issues are to ensure equitable distribution of opportunity and recognition (relating to involvement in the project) and team discussion of outcomes and rewards that appear to be unevenly distributed.

Encouragement for performance; sanctions for non-performance
It has become evident through the life of this project that funding bodies need to actively require leaders in the institutions they have funded to report on their activities to facilitate and sponsor the institutional uptake of project outcomes. The current process of vice-chancellor or deputy vice-chancellor sign-off only at the time of application leaves all responsibility for project success with individuals who may, in practice, be rendered powerless to achieve anticipated outcomes by institutional actions, e.g. related to non-renewal of contract, redundancy or senior management

disinterest. Concomitant with funding body encouragement of institutions to provide real support for the achievement of project outcomes, sanctions for non-performance, such as the requirement to return funding when none or few of the project outcomes have been achieved, would possibly assist in ensuring a more considered approach by institutions to providing real (rather than notional) support for funded projects.

5.0   Dissemination and linkages

5.1   Internal dissemination at partner universities

Within each partner university the activities associated with dissemination have differed in response to different needs, networks, opportunities and organisational cultures. The following paragraphs outline the dissemination activities that took place at each partner university and underpinned achievement of project impacts within each partner university

Griffith University
Initial findings from the first and second administrations of the survey instrument were selectively compared with data from the Australasian University Survey of Student Engagement (AUSSE), the International Student Barometer (ISB) and the Starting@Griffith data and presented at an orientation of new program directors and program service officers in the Griffith Business School (GBS).

Regular reports from the results of the WoUE surveys are given to members of the GBS Learning & Teaching Committee.

Monash University
Sharing of project findings and dissemination of the results have been significantly disadvantaged by changes in staff, roles and responsibilities. During the period of the project there were changes in the senior management team within the faculty.

State-based discussions with other Victorian university business education providers have resulted in dissemination of the findings across the sector and informal commitments to continue discussions beyond the conclusion of the project. Individual staff within these institutions have expressed interest in maintaining contact to promote awareness of attrition issues and to encourage information sharing.

The findings of the project will continue to be used for induction and training of sessional staff to raise awareness of the nature of students' difficulties and students' perceptions of their learning environment.

Murdoch University
Interim reports have been developed at each stage of the project in order to provide feedback to the school and other relevant members of the reference group.

Involvement in the project has had an impact on the engagement of the Business School teaching staff. It was encouraging to note that students reported that teaching staff were enthusiastic about the subject matter and were meeting individual needs. Dissemination of such project outcomes is the focus of a Business School report currently being developed as a summary of the three-year project.

A state-based workshop presenting the project outcomes is also being planned for November 2010 and will include internal Murdoch University stakeholders as well as those from other universities within Western Australia.

University of South Australia
Internal dissemination has occurred both formally and informally throughout the life of the project. Formal presentations outlining key findings from each stage of the project were provided to:

• Division Executive

- Division Teaching and Learning Committee
- University Teaching and Learning Committee (chaired by the Deputy Vice-Chancellor Academic)

Informal discussions were held on various occasions with:

- the Pro Vice-Chancellor for the Division of Business and the Manager of the City West Campus
- the University Student Services Manager in the Learning and Teaching Unit
- heads of school in the Division of Business
- the Dean International
- campus librarians
- core course coordinators.

The result has been an increased awareness of the range of factors affecting attrition amongst a range of academic and service staff and their managers at both a divisional and university level.

University of Southern Queensland
A comprehensive report of the results was prepared using the data from each of the 2008 and 2009 rounds of the survey. In 2009, the results were broken down into five student cohorts and this analysis revealed interesting differences between the groups. The 2008 report was disseminated via the Dean's Executive Committee, presentations to staff and through a web page link. The main form of dissemination of information to students was via the faculty web page. The 2009 report will be disseminated in the same way. A final report that compares 2008 and 2010 results is planned over the next months.

University of the Sunshine Coast
Internal dissemination activities have occurred in each year of the project. Each year different aspects of project data have been considered to create awareness of attrition as an issue and develop understanding of the specific aspects of the university experience associated with attrition at USC. Activities undertaken were:

2008
- Presentation to senior managers from across the university on factors influencing attrition at USC (Section B) and student perceptions of the best and worst aspects of their university experience and what needed to be improved (Section D)
- Presentation to the Faculty of Business on factors influencing attrition from the faculty, and student perceptions of the best and the worst aspects of their university experience and what needed to be improved
- A workshop was run as part of the Vice-Chancellor's Learning and Teaching Forum examining issues associated with intention to leave university prior to completing a degree
- Discussions on project findings and their implications were held with groups of staff from the Capital Programs and Operations Section, Student Administration, the library, and Student Services.

2009
- Using 2008 and 2009 combined data, a presentation on curriculum and assessment-related factors influencing attrition was given at the Vice-Chancellor's Learning and Teaching Forum for staff from across the university
- A presentation on factors influencing attrition was made to USC student mentors

- Presentations or discussions on project findings and their implications were held for groups of staff from Student Services, the International Office, and the library.

2010
- Data from 2008–2009 were used to provide an evidence base as the *USC Student Retention Plan* was being developed, a process which involved one-on-one discussion with senior staff from all sections of the university
- Data from all three years of the project were used in a workshop for senior staff to inform decisions on which high impact, collaborative actions should be taken to address attrition and improve student experiences across the three years of a USC degree;
- At a workshop held for the Faculty of Business and other interested staff from across the university (35 in total), data from the three years of the project were used to highlight issues underpinning retention of students grouped by various demographic variables, and the consequences for attrition of changing the balance of tutorial and lecture provision.

It is anticipated that the WoUE project findings will continue to influence retention-related actions at USC as they are embedded in the actions associated with the *USC Student Retention Plan*.

5.2 External dissemination

External communication with stakeholders was inbuilt in the form of specified project deliverables: the final project report to the ALTC, conference papers and journal articles (see Section 4.3 for a detailed list of outcomes in terms of specified deliverables). It was also anticipated that the process of project evaluation would to some extent assist in the dissemination of project findings and deliverables, given that the chosen evaluators worked in areas directly relevant to the focus of the project.

Subsequently, however, further opportunities for external communication were sought or found.

- Presentations of project findings were made to meetings of Associate Deans, Teaching and Learning, a group convened under the auspices of the Australian Business Deans Council and to education librarians

- A state-based workshop was developed and run for business faculty staff from Victorian universities not partner to the project; two further state-based workshops (In Western Australia and South Australia) will take place after the project funding period has ended

- An overview of the project and its implications for student support services was presented at the Australian and New Zealand Student Services Association conference

- A workshop was run at the conference of the Higher Education Research and Development Society of Australasia for the purpose of disseminating project outcomes and assisting those present develop attrition action plans relevant to their own institutions

- A Whole of University Experience group was established on the ALTC exchange, enabling sharing of documents that might be of interest to others, such as the

original application, the survey instrument, and an outline of project findings to date (including a review of relevant literature); and

- *Campus Review* interviewed the project leader with the publication in mid-July 2010 of a one-page article on the project and its outcomes.

Linkages with discipline groups or ALTC project groups, beyond those discussed above, have not occurred primarily because of lack of available time to foster such relationships.

5.3 Critical success factors – review of dissemination and linkages

Lessons learnt

Reflection by the project team and members of the reference group has led to the identification of a number of strategies for ensuring effective dissemination of project findings and materials, and the development of linkages supportive of the wider sharing and application of project outcomes. The lessons learnt are:

Provide time for dissemination during the project
In any project the lead time required to produce results necessarily limits the time for dissemination available within the project funding period. It is important to begin dissemination activities as soon as possible, without waiting for final data or materials to become available.

Identify 'paper champions'
Dissemination through journal articles and conferences is an important strategy for ensuring that what has been learnt from the project reaches others who may wish to engage with those lessons and remains available to others long after the project has finished. Unless a 'paper champion' is identified to drive the development of a publication, good dissemination intentions are readily overwhelmed by other more immediate tasks.

Use state-based workshops
Although there are many potential ways to disseminate project findings or outcomes, the use of state-based workshops offers the potential advantage (over conferences and similar presentations) of enabling the development of an ongoing community of practice related to the project.

Disseminate both within and across universities
The presentation of local data gathered within the context of a national project renders the local data considerably more persuasive. The presentation of data gathered nationally provides a greater opportunity for colleagues from across the higher education sector to identify issues of local relevance. A balance between local and national dissemination is important to facilitate the widest possible uptake of project findings and outcomes.

Create the space to engage and share
For dissemination to be successful it is necessary not only to present project outcomes but also to engage colleagues in real exploration of the relevance of what has been found to their own practices. Thus, it is important to create safe spaces for sharing information and opinions. For a project team presenting potentially sensitive

institutional information, it is vital to develop clear guidelines regarding what can and what cannot be disclosed to colleagues within and outside the partnership, and how the identify of organisations should be protected when sensitive data are being presented.

Plan to disseminate beyond the life of the project
Time for dissemination during projects is often limited by involvement in project development. Project lessons and outcomes are often not clear or fully realised until the end of the period of funding. It is essential, therefore, to plan (and find funding) for dissemination activities beyond the 'official' life of the project.

6.0 Evaluation

6.1 Formative evaluation

As indicated in Sections 3.2, 4.2 and 4.3, evaluation of the delivery of project deliverables and achievement of project outcomes was tied, in the first case, to the delivery of material outputs (articles and presentations) and, in the second case, to measurable key performance indicators outlined in the project plan.

From the time the Whole of University Experience project was granted funding, the project evaluator, Professor Geoff Scott of the University of Western Sydney, was involved in giving input into project and questionnaire design and strategies for evaluation. This input, through a face-to-face meeting with the project leader and subsequent telephone contact, ensured that our project team learnt from and built on his work on the causes of attrition. It also led to the use of CEQuery (Scott 2005) as a research tool. We subsequently decided to develop our project plan and use this for formative evaluation purposes during our teleconferences and annual meetings. The framework for evaluation provided by Professor Scott was discussed at our first annual meeting and used as a checklist against which to assess whether our project plan would serve us well as a tool for evaluation. Although the question of resourcing was, to a large extent, outside the team's capacity to influence given the specified level of funding and already chosen project team, the team determined that our project plan had provided a tool for evaluating the other three facets of Professor Scott's evaluation framework. The four facets of the evaluation framework are:

1. quality of conception (of what you are doing)
2. right people in right place with right tools – quality of resourcing
3. extent to which those involved (stakeholders) have found the project useful
4. What impact has the project had?

When Professor Scott had to withdraw from the project evaluator role because of competing demands on his time, we were pleased to have Professor Sally Kift of Queensland University of Technology (QUT) accept the role as our project evaluator. Her work on the first year experience has direct relevance to the focus of the project, and this ensures that evaluation of the project occurs not just with reference to processes used but also, at least implicitly, with reference to the content area on which the project focuses. Professor Kift attended the second national meeting of our project team, has had access to the project website, has been included in email communication, and has provided input regarding project progress, evaluation strategies, possible linkages and dissemination strategies.

6.2 Summative evaluation

For the project team, summative evaluation took place at the June 2010 national meeting when the project team assessed the project's outcomes against the project plan and also with reference to Professor Scott's evaluation framework. The discussion of the project's performance in terms of its deliverables and key performance indicators (Sections 4.2 and 4.3) provides a summative evaluation of the project in terms of measurable outcomes. In this section, a summative evaluation of the project made by the members of the project team and reference

group who attended the 2010 final national meeting of the project team, is presented with reference to Professor Scott's framework.

Quality of conception
- This project has been proven to have addressed an important issue: extending what we know about first year attrition, and looking beyond this. Our data, the gaps in literature, and the realities in partner universities demonstrate this.
- The national focus of the project has increased its local strength.

Quality of resourcing
- Lack of continued (personnel) resourcing in some universities has proven to be an issue
- There has been a lack of commitment in some universities, at the faculty level and above, to continue the project
- The project leader has been dedicated, engaged and courageous
- Griffith University has provided a great venue for national project meetings
- IT service provision has been good in general, but there has been some lack of quality control associated with the use of Opinio questionnaire software
- Resources provided for the gathering of both qualitative data have not been used at some universities.

Extent to which stakeholders have found the project useful
- There has been insufficient evaluation of student response to changes from project
- Students in some universities have been given insufficient feedback on project outcomes
- In some universities managers have used data to bring about change
- Colleagues and conference attendees comment on the richness and usefulness of data
- The project has provided a wealth of data for academics to continue writing papers and, thus, exploration associated with first and later year attrition and the impact of personal support interventions can continue.

Impact of the project
- A continuing impact through publication is anticipated
- The project has provided very credible data, due to both the size of the data set and the quality of the questionnaire
- The project has helped identify and address a large gap in the literature and professional practices related to attrition and retention.

In summary, the Whole of University Experience project has made a significant contribution to the higher education sector and delivered against its specified deliverables and outcomes. The project has traversed new territory by inviting and hearing the voices of later year students. It has used cross-sectoral collaboration to achieve improvement in student engagement in the partner universities, and it has provided a useful process model (and tools) for colleagues in other disciplines and other universities who wish to investigate attrition and potentially benchmark performance. The project findings have also underpinned considered and concerted collaboration between faculties and support services at the partner universities, enabling significant, contextually appropriate changes.

6.3   Independent evaluation

A formal, independent, summative evaluation of the Whole of University Experience project was conducted upon conclusion of the project by Professor Sally Kift (QUT), an ALTC Fellow. This independent evaluation provides a comprehensive overview of the project's processes and outcomes with reference to the ALTC's and the grant scheme's principles, as well as ALTC documents relating to the key learnings and challenges discovered in other projects. The evaluation also examines the project outcomes with reference to the project's stated outcomes and deliverables, and with reference to feedback obtained from project team and reference group members.

The project evaluator concluded:

The value of this project to the sector is considerable – in terms of its processes, products and the internal institutional impacts in collaborator universities. In the post-Bradley era, the government's focus is very firmly fixed on attainment and participation, the quality of the student experience, and student learning outcomes. In this context, the Whole of University Experience Project has made an important and timely contribution. It has delivered a rich new evidence base, is able to lay claim to some critical changes having already occurred in individual collaborator institutions, and has had significant research publication outputs based on the data analysis already conducted. The extensive data gathered under the auspices of the project should continue 'to provide evidence guiding institutional decision-making, and a basis for academic publication, for at least a year or two beyond the formal life of the project' (Final Report, 4.3). Critically, the project has directed much needed attention to factors associated with attrition in later years of the student experience (second and third years), and facilitated discussion around frameworks for evidence-based institutional responses that constitute effective interventions in this regard. The project's major findings that factors correlating with intention to withdraw are multifaceted, differentiated both by year and semester of study, and also differentiated by the university attended, have reinforced the need for institutions to collect their own data on the student experience to inform individual institutional responses and interventions. The project has also gathered valuable evidence on student perceptions of the usefulness of various university support services.

… This evaluation identified specific indicators of success and has assessed the project against them. Within the constraints of time, resourcing, staff turnover, and one partner institution's departure, this project has achieved considerable and significant outcomes and impact. The project team members, the reference group members, and the project leader in particular are to be commended for their enthusiastic, passionate and dedicated pursuit of the project outcomes. There is little if anything to fault in the way this project has been conducted and much to praise. Valuably, from the ALTC's perspective and for the benefit of future projects, there is a considerable amount of thoughtful reflection and advice that has been communicated in project reporting about the lessons that have been learnt and the critical success factors that have been identified. It is also entirely appropriate and desirable that, as one collaborator has commented 'significant products from the project will emerge over the next 18 months as we all have a chance to digest and analyse and publish and present the project's findings'.

The complete text of the independent evaluation can be found in Appendix 8.7.

In summary, the Whole of University Experience project has almost achieved the entirety of outcomes anticipated at commencement, has achieved some

unanticipated outcomes, and has produced significant deliverables for both partner universities and the sector as a whole. It has been an ambitious, large and lengthy project but it is expected that it will continue to deliver value for its various stakeholders for some years to come.

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Single response: 2009 University of the Sunshine Coast
Respondent id: 39125
Start date: 11/25/09 12:28 PM
Completed date: 11/25/09 12:28 PM
Response language: English [en]

1. **What year were you born?**

   2009

2. **How are you enrolled?**

   2. Part-time

3. **Are you?**

   2. Female

4. **Are you an External student?**

   2. No

5. **Do you attend classes on campus?**

   2. No

6. **How many courses have you completed towards your university degree?**

   1. Less than 4 (including zero)

7. **Which country are you a citizen of?**

   Afghanistan

8. **Are you an Aboriginal, Torres Strait Islander or Australian South Sea Islander?**

   -

9. **Are you enrolled as an International Student?**

   -

10. **Is a language other than English spoken in your family home most of the time?**

    -

11. **Do you have dependent children or other carer responsibilities?**

    -

12. **Are you the first person in your family to attend university?**

    -

13. **Do you intend to change to a different degree in the future?**

    -

14. **Do you intend to change to a different university in the future?**

    -

15. What preference did you give your current degree choice on your university application?

    -

16. What was your pathway to this university?

    -

17. How many years gap did you have between high school and commencing university studies?

    -

18. In which trimester did you commence your university studies?

    -

19. Have you studied at another university?

    -

20. How many courses are you studying this semester?

    -

21. On average, how many hours (including formal class time) do you spend studying each week?

    -

22. On average, how many hours per week do you spend in paid employment?

    0

23. During semester, how many days per week (including half-days and evenings) do you typically spend on campus?

    No days

24. Please rate the likelihood of the following: I am likely to leave university before completing a degree

    | Certain to leave | - | - | - | - | - | - | - | Certain to stay |

25. Which of the following scores best represents your average academic results in your previous year of study (either at university, school or TAFE)?

    -

26. How important to you are the following sources of financial support?

	Unimportant					Very important
Centrelink benefit	-	-	-	-	-	-
Part-time or casual work	-	-	-	-	-	-
Full-time work	-	-	-	-	-	-
Parents/family	-	-	-	-	-	-
Savings	-	-	-	-	-	-
Cadetship	-	-	-	-	-	-
Scholarship	-	-	-	-	-	-
Loans	-	-	-	-	-	-
Spouse/Partner	-	-	-	-	-	-

31. Please use the scale to indicate the extent to which you disagree or agree with the following statements

	Strongly Disagree								Strongly Agree
I have difficulty understanding the accents of some of my teachers.	-	-	-	-	-	-	-	-	-
I work hard at university.	-	-	-	-	-	-	-	-	-
I have had difficulty adjusting to the style of teaching at the university.	-	-	-	-	-	-	-	-	-
My courses are interesting.	-	-	-	-	-	-	-	-	-
It is difficult to balance my social life and university.	-	-	-	-	-	-	-	-	-
Administrative staff are usually available when I need them.	-	-	-	-	-	-	-	-	-
I have had a bad experience with a university teacher.	-	-	-	-	-	-	-	-	-
I received good advice from a careers adviser at my university about choosing my degree.	-	-	-	-	-	-	-	-	-
Teaching staff are usually available when I need them.	-	-	-	-	-	-	-	-	-
The administrative staff are sensitive to individual student needs.	-	-	-	-	-	-	-	-	-
I enjoy the intellectual challenge of what I am studying.	-	-	-	-	-	-	-	-	-
To do well at my university studies all I need is a good memory.	-	-	-	-	-	-	-	-	-

32. Please use the scale to indicate the extent to which you disagree or agree with the following statements

	Strongly Disagree								Strongly Agree
It is difficult to balance family and university.	-	-	-	-	-	-	-	-	-
I enjoy the opportunity to interact with students from different cultures at university.	-	-	-	-	-	-	-	-	-
The university's IT resources are adequate for my learning needs.	-	-	-	-	-	-	-	-	-
I know the type of occupation I want.	-	-	-	-	-	-	-	-	-
My teachers are generally good at explaining things.	-	-	-	-	-	-	-	-	-
I am often homesick.	-	-	-	-	-	-	-	-	-
My teachers try hard to make the courses interesting.	-	-	-	-	-	-	-	-	-
I am satisfied with the status of my university.	-	-	-	-	-	-	-	-	-
I participate in class discussions.	-	-	-	-	-	-	-	-	-
Having a mentor at university would be useful.	-	-	-	-	-	-	-	-	-
I am worried about the debt I am accumulating while I am attending university.	-	-	-	-	-	-	-	-	-
I was able to enrol in the degree of my choice.	-	-	-	-	-	-	-	-	-
It is difficult to balance work and university.	-	-	-	-	-	-	-	-	-
I have a clear reason for attending university.	-	-	-	-	-	-	-	-	-
What I am learning at university builds on study I have undertaken in the past.	-	-	-	-	-	-	-	-	-
I find it difficult to comprehend a lot of the learning material.	-	-	-	-	-	-	-	-	-
My university workload is too heavy.	-	-	-	-	-	-	-	-	-
I am concerned about my physical health.	-	-	-	-	-	-	-	-	-
I received good advice from my school about choosing my degree.	-	-	-	-	-	-	-	-	-
Teaching staff make it clear from the start what they expect from students.	-	-	-	-	-	-	-	-	-
I need good analytical skills to do well in my studies.	-	-	-	-	-	-	-	-	-
The teaching rooms provide a high quality learning environment.	-	-	-	-	-	-	-	-	-
I find it hard to manage my time effectively.	-	-	-	-	-	-	-	-	-
Overall I am satisfied with my experience of university.	-	-	-	-	-	-	-	-	-

33. Please use the scale to indicate the extent to which you disagree or agree with the following statements

	Strongly Disagree								Strongly Agree
The university facilities are adequate for my social needs.	-	-	-	-	-	-	-	-	-
I find the university to be a lonely place.	-	-	-	-	-	-	-	-	-
I find it easy to travel to university.	-	-	-	-	-	-	-	-	-
I come to class prepared.	-	-	-	-	-	-	-	-	-
The university facilities are adequate for my religious/cultural needs.	-	-	-	-	-	-	-	-	-
I frequently skip class.	-	-	-	-	-	-	-	-	-
Class sizes at my university are too large.	-	-	-	-	-	-	-	-	-
The timetabling of my classes is convenient.	-	-	-	-	-	-	-	-	-
I like the physical environment of the university campus.	-	-	-	-	-	-	-	-	-
I am satisfied by the work experience opportunities offered by the university.	-	-	-	-	-	-	-	-	-
I don't attend classes if notes and materials are on the web.	-	-	-	-	-	-	-	-	-

34. What or who are you likely to consult when you need information about your program requirements?

	Least likely to consult								Most likely to consult
The Handbook (hard copy or electronic)	-	-	-	-	-	-	-	-	-
Course Outline	-	-	-	-	-	-	-	-	-
Lecturer	-	-	-	-	-	-	-	-	-
Tutor	-	-	-	-	-	-	-	-	-
Faculty Program Adviser	-	-	-	-	-	-	-	-	-
Student Administration	-	-	-	-	-	-	-	-	-
Student Services	-	-	-	-	-	-	-	-	-
Fellow students	-	-	-	-	-	-	-	-	-
Parents	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-

35. What or who are you likely to consult when you need information about your assessment requirements?

	Least likely to consult								Most likely to consult
The Handbook (hard copy or electronic)	-	-	-	-	-	-	-	-	-
Course Outline	-	-	-	-	-	-	-	-	-
Lecturer	-	-	-	-	-	-	-	-	-
Tutor	-	-	-	-	-	-	-	-	-
Faculty Program Adviser	-	-	-	-	-	-	-	-	-
Student Administration	-	-	-	-	-	-	-	-	-
Student Services	-	-	-	-	-	-	-	-	-
Fellow students	-	-	-	-	-	-	-	-	-
Parents	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-

36. How would you like the University to communicate with you about your courses or enrolment?

	Please don't use								Please use
Hard copy letter in the mail	-		-	-	-	-	-	-	-	-
USC Portal or Blackboard	-		-	-	-	-	-	-	-	-
University website	-		-	-	-	-	-	-	-	-
Information sessions	-		-	-	-	-	-	-	-	-
Email	-		-	-	-	-	-	-	-	-
Home telephone	-		-	-	-	-	-	-	-	-
Mobile telephone	-		-	-	-	-	-	-	-	-
SMS	-		-	-	-	-	-	-	-	-
Social networking space (e.g. FaceBook, MySpace)	-		-	-	-	-	-	-	-	-
Other	-		-	-	-	-	-	-	-	-

37. Please use the scale to indicate the value of any of the following preparatory courses that you have used prior to the start of the semester.

	Have not used	Not useful							Very useful
Enabling course in maths	-	-	-	-	-	-	-	-	-	-
Enabling course in statistics	-	-	-	-	-	-	-	-	-	-
Pre-orientation academic writing and study skills	-	-	-	-	-	-	-	-	-	-
Computer basics for beginners	-	-	-	-	-	-	-	-	-	-

38. Please use the scale to indicate the value of any of the following Academic Skills services that you have used.

	Have not used	Not useful							Very useful
Enabling courses (e.g. writing, computer literacy)	-	-	-	-	-	-	-	-	-	-
Computer skills weekly workshops	-	-	-	-	-	-	-	-	-	-
Academic writing and presentation skills workshops (e.g. referencing, essay writing, presentation skills)	-	-	-	-	-	-	-	-	-	-
Academic study skills workshops (e.g. time management, effective reading, note taking, group work)	-	-	-	-	-	-	-	-	-	-
Peer adviser program	-	-	-	-	-	-	-	-	-	-
Academic skills online materials (Blackboard)	-	-	-	-	-	-	-	-	-	-
Individual consultations with Academic Skills Adviser	-	-	-	-	-	-	-	-	-	-
Academic skills drop-in session (at the library)	-	-	-	-	-	-	-	-	-	-
Academic skills drop-in session (at Student Services)	-	-	-	-	-	-	-	-	-	-

39. Please use the scale to indicate the value of any of the following Information Technology (IT) services that you have used.

	Have not used	Not useful							Very useful
Face-to-face consultation with IT Help Desk	-	-	-	-	-	-	-	-	-	-
Telephone Consultation with IT Help Desk	-	-	-	-	-	-	-	-	-	-
Email request for help or service	-	-	-	-	-	-	-	-	-	-
Blackboard	-	-	-	-	-	-	-	-	-	-
SOLAR	-	-	-	-	-	-	-	-	-	-
USC Portal	-	-	-	-	-	-	-	-	-	-
Frequently Asked Questions (FAQ) section on University Website	-	-	-	-	-	-	-	-	-	-

40. Please use the scale to indicate the value of any of the following Library services that you have used.

	Have not used	Not useful								Very useful
Face-to-face consultation with library staff	-	-	-	-	-	-	-	-	-	-
Telephone Consultation with library staff	-	-	-	-	-	-	-	-	-	-
Email request for help or service	-	-	-	-	-	-	-	-	-	-
Library tutorials	-	-	-	-	-	-	-	-	-	-
Reserve material in the library	-	-	-	-	-	-	-	-	-	-
General collection in the library	-	-	-	-	-	-	-	-	-	-
Library catalogue	-	-	-	-	-	-	-	-	-	-
Library databases	-	-	-	-	-	-	-	-	-	-
Library webpage on University website	-	-	-	-	-	-	-	-	-	-
Facilities for my laptop	-	-	-	-	-	-	-	-	-	-
Facilities for group study	-	-	-	-	-	-	-	-	-	-
Facilities for quiet study	-	-	-	-	-	-	-	-	-	-

41. Please use the scale to indicate the value of any of the following Student Services that you have used.

	Have not used	Not useful								Very useful
Health and wellbeing	-	-	-	-	-	-	-	-	-	-
Counselling	-	-	-	-	-	-	-	-	-	-
Welfare or financial support	-	-	-	-	-	-	-	-	-	-
Off-campus accommodation	-	-	-	-	-	-	-	-	-	-
Buranga Centre support	-	-	-	-	-	-	-	-	-	-
Student Access support (e.g. monitored enrolment)	-	-	-	-	-	-	-	-	-	-
Disability support	-	-	-	-	-	-	-	-	-	-
Support with grievances and appeals	-	-	-	-	-	-	-	-	-	-

42. Please use the scale to indicate the value of any of the following *careersconnection* services that you have used.

	Have not used	Not useful								Very useful
Individual career planning	-	-	-	-	-	-	-	-	-	-
Career planning and job search workshops	-	-	-	-	-	-	-	-	-	-
CareerHub	-	-	-	-	-	-	-	-	-	-
Graduate jobs support	-	-	-	-	-	-	-	-	-	-
On campus employer contact (e.g. career fairs, information sessions)	-	-	-	-	-	-	-	-	-	-
Work Integrated Learning (WIL)	-	-	-	-	-	-	-	-	-	-
Post-graduate study selection assistance and counselling	-	-	-	-	-	-	-	-	-	-

43. If you are an INTERNATIONAL student, please use the scale to indicate the value of any of the following services you have used.

	Have not used	Not useful								Very useful
Direct English Entry Program (DEEP)	-	-	-	-	-	-	-	-	-	-
Pre-enrolment advice from USC International	-	-	-	-	-	-	-	-	-	-
Visa advice from USC International	-	-	-	-	-	-	-	-	-	-
International Foundation Pathway (IFP)	-	-	-	-	-	-	-	-	-	-
Pre-departure advice from USC International	-	-	-	-	-	-	-	-	-	-
Consultation with an International Student adviser	-	-	-	-	-	-	-	-	-	-
Consultation with an Academic Skills Adviser (e.g. English Language Support)	-	-	-	-	-	-	-	-	-	-
Academic Skills - Assignment writing @ USC course (offered in Weeks 1-6)	-	-	-	-	-	-	-	-	-	-
Library services and workshops for international students	-	-	-	-	-	-	-	-	-	-

44. If you are an INDIGENOUS student, please use the scale to indicate the value of any of the following services that you have used.

	Have not used	Not useful								Very useful
Consultation with Buranga Centre staff	-	-	-	-	-	-	-	-	-	-
Indigenous students' direct entry pathway	-	-	-	-	-	-	-	-	-	-
Indigenous students' orientation program	-	-	-	-	-	-	-	-	-	-
ITAS - Indigenous tutorial assistance scheme	-	-	-	-	-	-	-	-	-	-
National Indigenous Cadetship Program	-	-	-	-	-	-	-	-	-	-

45. Please use the scale to indicate the value of any of the following Faculty of Business services that you have used.

	Have not used	Not useful								Very useful
Consultation with a program or course adviser	-	-	-	-	-	-	-	-	-	-
Business Connection	-	-	-	-	-	-	-	-	-	-
Business Learning Connection	-	-	-	-	-	-	-	-	-	-
Business Library Connection	-	-	-	-	-	-	-	-	-	-
Student mentoring program	-	-	-	-	-	-	-	-	-	-
Business Central on Blackboard	-	-	-	-	-	-	-	-	-	-
In-class academic skills workshop (presented during lecture or tutorial)	-	-	-	-	-	-	-	-	-	-
Out-of-class academic skills workshop (provided by Academic Skills Adviser from Student Services)	-	-	-	-	-	-	-	-	-	-
In-class library tutorial (provided by library staff)	-	-	-	-	-	-	-	-	-	-
Library presentation provided at a lecture	-	-	-	-	-	-	-	-	-	-

47. **Please use the scale to indicate which of the following services/activites you think it is important for the University to provide.**

	Not useful								Very useful
On-campus cafes/eateries	-	-	-	-	-	-	-	-	-
On-campus bar	-	-	-	-	-	-	-	-	-
Weekly bands/music/entertainment	-	-	-	-	-	-	-	-	-
Weekly markets	-	-	-	-	-	-	-	-	-
University clubs and societies	-	-	-	-	-	-	-	-	-
Cultural celebrations on campus	-	-	-	-	-	-	-	-	-
Parking	-	-	-	-	-	-	-	-	-
Childcare services	-	-	-	-	-	-	-	-	-
Shuttle-bus services	-	-	-	-	-	-	-	-	-
Subsidised public transport	-	-	-	-	-	-	-	-	-
Recreational/sporting facilities	-	-	-	-	-	-	-	-	-

48. **Did you complete this survey last year (in 2008)?**

    -

49. **What have you found to be the best aspects of the services, facilities and support provided by this University?**

50. **What have you found to be the worst aspects of the services, facilities and support provided by this University?**

51. **What could be done to improve the services, facilities and support provided by this University?**

52. **My student number is**

53. **My contact details are**

EVALUATION REPORT
September, 2010
Sally Kift, Queensland University of Technology

The Whole of University Experience: retention, attrition, learning and personal support interventions during undergraduate Business studies
ALTC Competitive Grant Project: CG7-395

1.0   Executive Summary.

This large, multi-institutional, three year Australian Learning and Teaching Council (ALTC) competitive grant project, led by the University of the Sunshine Coast (Project Leader Dr Lesley Willcoxson), gathered, analysed and reported on data to examine the factors underpinning attrition in the first, second and third years of a Business degree at six Australian Universities. A total of 7486 international and domestic students completed a 70 item questionnaire that gathered quantitative and qualitative data relating to demographics, experience of university, and use and perceptions of student support interventions. Additionally, in each year, a small number of students were interviewed, while the project also tracked a cohort of students from first year through to the final year of their undergraduate business degree studies.

The project commenced with a project team of 15 academics from seven universities (three from the lead university and two from each of the other partner universities). Institutionally-based reference groups comprised another 16 staff; one academic and the rest drawn from professional staff working in various areas of student support provision (three from the lead university and two from each of the other partner universities). Over the period of the project, there were numerous changes to the composition of both the project team and the reference groups, as a consequence of resignations, redundancies, changes of role, and periods of extended leave, and also due to the withdrawal from the project of one of the partner universities.

Despite these setbacks, this large scale project, driven by a dynamic and committed project leader, has achieved significant outcomes. There is clear evidence that it has had considerable impact both internally, in many of the partner institutions, and externally through extensive project disseminations; the latter including five (5) refereed journal articles, eight (8) presentations to conferences and other fora, one (1) non-refereed article, a project website, an ALTC Exchange Group, and an article on the project in *Campus Review*.

2.0   Project Summary, Final Report and Outcomes.

Six universities (University of the Sunshine Coast, Griffith University, Monash University, Murdoch University, University of South Australia and University of Southern Queensland) ultimately collaborated on this project, which gathered data over three years (2008, 2009, and 2010) across four states from almost 7500 undergraduate business student respondents. The quantitative and qualitative data collected were analysed to identify the similarities and differences in factors associated with attrition over each of the three years of the undergraduate business degree across the six diverse institutions, for both international and domestic students. The project also tracked a cohort of students from first year through to the final year of their undergraduate business degree studies.

As set out in the grant application, the project addressed two Australian Learning and Teaching Council (ALTC) priorities

- research and development focusing on issues of emerging and continuing importance; and

- strategic approaches to teaching and learning that address the increasing diversity of the student body.

The two primary aspects of the project were (Final Report, 2.3)

1. data gathering, analysis and reporting; and
2. review of or changes to learning and personal support interventions designed to address attrition.

As even this briefest of outlines demonstrates, the project was extremely ambitious in scale and scope. Not unexpectedly, the composition of the original project team (of 15 academics) and institutionally-based reference groups (total of 16 staff) changed over the three year life of the project. Specifically, one of the seven original partner universities withdrew, as did the original evaluator. Nevertheless, the project has achieved significant outcomes and there is clear evidence that it has had considerable impact both internally, in many of the partner institutions, and externally through extensive project disseminations.

The value of this project to the sector is considerable – in terms of its processes, products and the internal institutional impacts in collaborator universities. In the post-Bradley era, the government's focus is very firmly fixed on attainment and participation, the quality of the student experience, and student learning outcomes. In this context, the *Whole of University Experience Project* has made an important and timely contribution. It has delivered a rich new evidence base, is able to lay claim to some critical changes having already occurred in individual collaborator institutions, and has had significant research publication outputs based on the data analysis already conducted. The extensive data gathered under the auspices of the project should continue 'to provide evidence guiding institutional decision-making, and a basis for academic publication, for at least a year or two beyond the formal life of the project' (Final Report, 4.3). Critically, the project has directed much needed attention to factors associated with attrition in later years of the student experience (second and third years), and facilitated discussion around frameworks for evidence-based institutional responses that constitute effective interventions in this regard. The project's major findings that factors correlating with intention to withdraw are multifaceted, differentiated both by year and semester of study, and also differentiated by the university attended, have reinforced the need for institutions to collect their own data on the student experience to inform individual institutional responses and interventions. The project has also gathered valuable evidence on student perceptions of the usefulness of various university support services.

Particular factors that have aided the project's success have included

- the strong, determined, and resilient leadership and project management skills demonstrated by the project leader, Dr Lesley Willcoxson, who, it should be noted, contributed to every one of the project disseminations;

- unfunded preparatory work (literature review, questionnaire development, and ethics approval) conducted in advance of the project's commencement;

- early involvement of the original project evaluator and the evaluation framework thereby adopted (see Final Report, 6.1);

- early recognition that annual face-to-face meetings of the partner universities (originally unplanned for) were 'essential' (team member feedback to evaluator, June 2010);

- early development of a more detailed project plan (see Final Report, Table 2) that fleshed out the five project aims (the five 'project purposes' described in the original grant application and set out in the Final Report, 2.2) by identifying key stakeholders, key performance indicators (KPIs), strategies for achieving the KPIs, deliverables, and assumptions critical to success of project;
- the development of a project management website (originally unplanned for) and the development and sharing of an Endnote file that allowed direct access to relevant literature without breaching copyright restrictions;
- a willingness and ability to adapt and be responsive to advice (e.g., received from the reference group), circumstances (e.g., necessity for face-to-face meetings, unexpected institutional diversity discovered in factors underlying attrition) and dynamic change (e.g., changes in project team constitution and membership); and
- insightful reflection at every reporting stage, as is also evident in the Final Report itself (e.g., at 3.5, 4.4, 5.3, 6.1, and 6.2) and which subsequently became the subject of a publication 'Leading, managing and participating in inter-university teaching grant collaborations' (Final Report, Appendix 8.6).

Many of these factors were identified by the project team in the Final Report (e.g., at 3.5 and 6.1); specifically

- the unfunded preparatory work;
- ongoing communication, including value of face-to-face meetings;
- active leadership;
- early involvement of the project evaluator (Professor Geoff Scott) and the subsequent development of the more detailed project plan; and
- responsiveness to changing needs and opportunities (including budget flexibility).

Unanticipated outcomes of this project, which should be of interest to the sector, include

- the teaching-research nexus activity, which saw both first and final year undergraduate students engaged in research at the lead institution through the initial design and administration of the project's questionnaire (described at Final Report, 8.2);
- an innovative research sharing response, initiated by the Library at the lead institution, to work within copyright restrictions regarding storing of journal articles on the project website; all partner universities were given direct access to articles via an Endnote file and persistent (URL) links, on the condition that all partner universities held the database in which the article appeared; and
- learnings in relation to how to enhance online survey response rates. The achievement of recruiting nearly 7,500 respondents to the project survey was said to be attributable to what the team learnt from one another about strategies for increasing sample size: for example, Final Report, 3.4 '...it appears that institutional culture, staff support for the survey, and students' wish to give feedback probably had more impact on completion numbers than did the provision of incentives, and the provision of incentives had no discernible impact on the validity of the data obtained'. This unintended learning had been anticipated in an earlier Interim Report (No 2, 2.2) and is valuable for the sector as many institutions move to the delivery of online surveys (for example, for evaluations of teaching and course design).

Finally, the Final Report also identifies some further opportunities still to be realised out of the project, particularly: the development of an attrition benchmarking tool; and recognition that the data collected retain their value for several years beyond life of project.

3.0   Evaluation and the independent evaluators.

Following notification of the award of the project, the original project evaluator, Professor Geoff Scott (University of Western Sydney), was involved in providing input into the project, the design of the questionnaire, and strategies for evaluation (Final Report, 6.1). In this role, he was a 'valuable contributor and sounding board' (Interim Report No 1, 3.2) and the experience of this project has yet again reinforced the often reported conclusion that it is important to involve the evaluator from the start of the project. Professor Scott's 'quality-focused evaluation framework' (Interim Report No 2, 3.1) involved the following aspects and was specifically addressed by the project team in its own evaluation session at the June 2010 National Meeting (as detailed in Final Report, 6.2).

1. Quality of conception (of what you're doing)
2. Right people in right place with right tools – quality of resourcing
3. Extent to which those involved (stakeholders) have found the project useful
4. What impact has the project had?

When Professor Scott had to withdraw as project evaluator due to competing demands in 2008, I accepted the role of project evaluator in mid 2009. I attended the second national team meeting on 31 July 2009 and, similarly to Professor Scott, also provided input regarding project progress, evaluation strategies, possible linkages and dissemination strategies. I have also had access to the project website, to the ALTC Exchange Group, and have been included in email communications. At a formative level, it is clear from both the Interim Reports and the project's Final Report, that the project's aims, management processes and progress towards outcomes were reviewed iteratively and usefully over the life of the project.

In conducting this evaluation, I have had regard to those interactions and also to

- All documentation related to the project (application, interim and final reports, and publications); and
- The results of an email survey conducted by me and sent to all project team and reference group members.

As regards the nature of the project evaluation, the project application relevantly stated (at p 11) that

> At the time of submission of the final report to the [then] Carrick Institute, the evaluator will be engaged to evaluate the outcomes of the project against both [then] Carrick Institute principles (inclusiveness, long term change, diversity, collaboration, excellence) and grant scheme goals (transparency, value for money, high impact, future looking). Evaluation will also occur with reference to the project purpose...

The (now) Australian Learning and Teaching Council's (ALTC's) guiding principles, as set out in the ALTC Strategic Plan 2010-2013, are – excellence, sustainability, collaboration, diversity and inclusiveness. The ALTC website's Overview of the Grants scheme indicates that the following principles underpin the current Grants scheme

- Compliance with the ALTC mission, objectives and values

- Transparency

- Value for money

- High impact
- Future looking

The first part of this evaluation section will briefly review the project outcomes against the ALTC's guiding principles and the current Grants scheme's principles. Given the effective and efficient way in which the project team have already evaluated their work against Professor Scott's framework in the Final Report (at 6.2) and in the Interim Reports to the ALTC, there seems little point in rehearsing each of those criteria seriatim, particularly the first two aspects. Instead, this evaluation will also examine the project's achievements against the following indicators of success

- Whether the stated outcomes and deliverables were achieved (including Professor Scott's fourth aspect of project impact);
- Extent to which the project team collaborators have found the project valuable to them and their perceptions of the project's value and potential impact in their own institutions and more broadly (a variation of Professor Scott's third aspect, as I am in no position to comment more generally on other stakeholders' (including students') perceptions); and
- Comparison of this project's and team's experience with the 'Key Learnings' and 'Key Challenges' indentified in the 2008 ALTC document Operational learnings of ALTC project holders.

This section will then conclude with some brief observations and comments that might be of value to the ALTC regarding similar projects.

3.1   Evaluation as against ALTC's and Grants Scheme's guiding principles.

The several guiding principles of the ALTC and its Grants Scheme have clearly been met by this project, its processes, and its outcomes. It seems to me that this is exactly the sort of project that the ALTC values and for which the Grants Scheme was designed. For me, the large scale **collaboration** is the standout feature; across institutions and the student life cycle, and sustained despite personnel changes and other challenges – a testament to the dedication and enthusiasm of the project team and its leader.

The multi-university **collaboration** could not have been more **inclusive** (of institutional diversity and type – six institutions across four states; in terms of team and reference group membership (academic and professional staff, at varying levels across the several institutions); and also as measured by student involvement, both domestic and international). The project has had highly visible internal and external **impact** (internally within the collaborator institutions and externally in the sector more broadly). In these ways alone, the project has been extraordinarily good **value for money** regarding the depth and breadth of its engagement and reach, and in terms of the outcomes it has delivered (funded at the usual quantum of $220,000 (ex GST), even though for three years). The emphasis on peer reviewed journal publications (in quality, ERA ranked journals), in conjunction with a fulsome engaged dissemination strategy of face-to-face presentations, are obviously **transparent**, high **impact** and aimed at objectively **excellent** indicators. The **future looking** aspect of the project has already been proven; it anticipated the government's current focus on attainment and participation, the quality of the student experience, and student learning outcomes. The criterion of **sustainability** is always difficult to establish over the limited life of any project, however the model adopted by this project's methodology has already produced evidence of some significant and embedded changes in discipline and institutional practice in the collaborator institutions, many at the systemic level. As would be expected, this aspect is variable across institutions.

3.2   Whether the stated outcomes and deliverables were achieved.

The original application referred to

- The 'primary purposes' of the project (at p 1 of the original application)
- 'Project outcomes' (at p 11)
- 'Anticipated project deliverables' (at p 12)

Though the development of a more detailed project plan, which focused on the project's 'primary purposes' (in that document referred to as the 'project aims' and set out in the Final Report, 2.2), was a great strength and, it must be said, a critical factor in guiding the project's ultimate and overall success, this subsequently developed project plan did not directly reflect the 'project outcomes' or the 'anticipated project deliverables' identified in the original application. The relationship between these three project aspects (of purposes, outcomes and deliverables) was not necessarily articulated with great clarity, despite the attempt to do so in the project plan.

In the end result however, this has not mattered: the original project outcomes (set out in the Final Report, 4.3 and said there to have been 'recast as key performance indicators') were largely achieved, as were the project's original 'anticipated deliverables' (set out in the Final Report, 4.2). The only original deliverable not to have been achieved (as acknowledged in the Final Report, 4.2) was the fourth – the 'development of wider teaching research collaborations within partner universities leading to the publication of papers'. This last was an ambitious outcome, and understandably beyond the capacity of the project team to achieve within the constraints of the project's timeline and human resources; specifically, the data that would have informed these joint publications only became available in the second year of the three year project, and there was simply not the time available, in the face of other competing demands, to develop the systematic and wider collaborative and mentoring frameworks needed to support this deliverable. To acknowledge this is not to disparage in any way whatsoever the significant outcomes that have been achieved, but simply to recognise the reality that there is a limit to what can be done over the life of a project, especially one as large scale and multi-faceted as this project was.

For the sake of completeness, I now set out the original project outcomes specified in the grant application (at p 11) and note the outcomes achieved in **Table 1**. The original project deliverables (application at p 12) and what was delivered are set out in **Table 2**. I should say in relation to the latter, that I think there is no issue to be had with the publications and conference presentations not completely matching to those originally proposed. Such statements in a grant application can never be considered to be anything more than indicative. It should be particularly noted that many of the outcomes and deliverables achieved were not anticipated in the grant application (e.g., the project website and the Endnote library), though they may have been foreshadowed in the more detailed project plan developed (and see further below). For example: two unanticipated refereed journal articles arose out of the project's implementation – a paper on leading, managing and participating in an ALTC grant (Final Report, Appendix 8.6) and a paper on the enactment of the research-teaching nexus regarding the development of the questionnaire drafts (Final Report, Appendix 8.2).

Table 1 Original Outcomes from Application and Outcomes Produced

Outcomes specified in original application	Outcomes produced
Identification of the relative influence of varied factors on the decision to withdraw from or remain at university over a three year period, and what might be done to mitigate critical negative influences	Project data gathered, analysed and significant dissemination of analysis has been reported in journals, conferences and other fora. Note sector-wide relevance of analysis, given diversity of partner institutions and presentation of comparative data. General outline in Final Report, 4.0 (esp Table 3).
Better understanding of the impact of student support interventions over time and of the characteristics of successful student support interventions	Project data gathered, analysed and significant dissemination of analysis has been reported in journals, conferences and other fora. Note sector-wide relevance of analysis, given diversity of partner institutions and presentation of comparative data. General outline in Final Report, 4.0 (esp Table 6).
Development of a profile of students at risk of withdrawing throughout the course of their studies and identification of the needs of different market segments	Project data gathered, analysed and significant dissemination of analysis has been reported in journals, conferences and other fora. Note sector-wide relevance of analysis, given diversity of partner institutions and presentation of comparative data. General outline in Final Report, 4.0 (esp Tables 3, 4 and 5).
Changes within each participating university to some of the learning and personal support interventions examined	Material, data and opportunities made available for uptake in each of the participating universities with various impacts achieved, many quite substantial, as set out in Final Report, 4.3. Awareness raising and institutional buy-in generated by way of internal disseminations (i.e., within partner institutions) as identified in Final Report, 5.1.
Establishment of a teaching research concentration within each participating Business Faculty	Not achieved within constraints of project timeline, resourcing and capacity. A number of internal disseminations (i.e., within partner institutions) have been made as identified in Final Report, 5.1.
Growth of a nationwide community of practice which shares experience relating to retention, attrition and student support	Emerging evidence of this in project disseminations. Project website and Endnote library developed to support this outcome.

Table 2: Original Deliverables from Application and Deliverables Produced.

Deliverables specified in original application	Deliverables produced
A report to the [ALTC] on factors influencing retention, and attrition over students' three years at university, and on the longitudinal impact of student support interventions	Final Report
Presentation of findings to a national audience at the annual HERDSA conference and other relevant discipline conferences (ANZAM, ACIS, ANZMAC, AFAANZ)	Eight (8) presentations to conferences and other fora and one (1) article in *HERDSA News* (as per Final Report, 4.2) • *Australian International Education Conference (AIEC) 2009* • *Australia and New Zealand Student Services Association (ANZSSA) Conference 2009* (two papers) • *Australia and New Zealand Academy of Management (ANZAM) Conference 2009* • Workshop facilitated for Victorian Associate Deans Education/Teaching, Monash University, 2009 • Presentation to **Queensland University Libraries Office of Cooperation (QULOC) Education Practitioners, 2009** • The Whole of University Experience Project: Lessons on attrition from first year and beyond. *HERDSA News*, vol. 31, no. 3, 10-12 • Workshop at *Higher Education Research and Development Society of Australasia (HERDSA) Conference 2010* • Presentation to the ABDC Associate Deans Teaching and Learning, 2010. Further state-based workshops (WA and SA) are scheduled. An ALTC Exchange Group has been established: see http://www.altcexchange.edu.au/group/whole-university-experience-retention-and-attrition-first-year-and-beyond
Publication of articles in the Journal of Marketing for Higher Education (on meeting the needs of different market segments), the Journal of Further and Higher Education (on the impact of student support interventions over time), Higher Education Research and Development (on factors influencing retention and attrition in second and third year), and the Journal of Higher Education Policy and Management (on the policy and practice implications of the research).	Five (5) refereed journal articles published/ accepted (1 x A*, 2 x A, and 2 x B ERA ranked journals, as per Final Report, 4.2) – • *Studies in Higher Education* (Appendix 8.3) • *Australian Journal of Education* (Appendix 8.5) • *Higher Education Research and Development* (Appendix 8.4 and 8.6) • *International Journal of Teaching and Learning in Higher Education* (Appendix 8.2)
The development within partner universities of teaching research collaborations leading to publication of papers relating to the impact of university-specific student support interventions.	Not achieved within constraints of project timeline, resourcing and capacity.

In addition to these originally specified outcomes and deliverables, the project plan subsequently developed (Final Report, 2.2 Table 2) also specified the following outcomes (set out at Final Report, 4.3)

- Development of a benchmarking tool;
- Dissemination of information about retention impact factors to national university clusters; and
- Hosting of a symposium on project findings for partner universities to share the outcomes of the project with existing communities of practice and other ALTC project groups related to retention.

The benchmarking tool is currently under development and a journal article in preparation also in relation to it. The second and third additional outcomes have also been achieved by way of the many and various disseminations referred to in the two Tables above (noting that several targeted workshops substituted for the hosting of the proposed symposium).

Taken together with the substantial data gathering and analysis that have been conducted under the auspices of this project, these are significant and impressive outputs and, as feedback from the project team members has confirmed, largely attributable to the project management skills of the project leader, Dr Lesley Willcoxson. It should also be mentioned that *Campus Review* did a story of the grant and interviewed Dr Willcoxson: see Jeremy Gilling, (2010). Building a sense of belonging. *Campus Review*, 19 July, 2010. Retrieved 16 September, 2010 from
http://www.campusreview.com.au/pages/section/article.php?s=Faculty+Focus&ss=Humanities&idArticle=17000

3.3   Extent to which the project team collaborators have found the project valuable to them and their perceptions of the project's value and potential impact in their own institutions and more broadly.

The comments under this section are drawn from responses provided to an email survey conducted by the evaluator of the project team's and reference groups' members (conducted over June-July 2010) and from observations of the project team's face-to-face and online interactions since July 2009. As is often the case, the success of a project such as this depends very greatly on the attributes, constitution and dynamics of the project team, their commitment to engaged participation, and their mix of expertise, skills and experience. A critical role, of course, is that of the project leader. It was clear to me that this was, as was stated at the July 2010 meeting I attended, a 'high quality group'. Collectively, the team was enthused to be involved in the project, excited by the richness of the data gathering and analysis that had been undertaken, and energised by the potential to make a real difference to the quality of their students' experience.

Some themes emerged from the project team's and reference groups' feedback to me and my observations of their various interactions, which are now set out.

Strong project leadership is vital. In the particular circumstances of this project (extended project period and multi-institutional), the capabilities and drive of the project leader have been fundamental to the efficacy of project team's engagement and collaboration and to the project's overall success. All members of the project team and the reference groups who responded to the evaluator's survey spoke highly of the project leader and attributed much of the success of the project directly to her. Team members commented

> *... Lesley has shown extraordinary leadership through the project. I suspect her mix of interpersonal skills and task focus is fairly rare. Lesley really took the lion's share of the work on in bringing to conclusion the various tasks of the project such as the initial development of*

the survey and I suspect that this facilitated the collaborative relationships on which the project is based. This meant that people could opt in an[d] out without "punishment" as their other work ebbed and flowed. This is essential in a long term project where enthusiasm can wane and nerves can become frayed.

I think Lesley's ground work (in setting up the conceptual framework and methodology for the study) means that the project has yielded a very rich data set that really could not be improved upon.

Lesley's ability to bring in and work with individuals from the various universities was critical to the success of the project. Furthermore, her commitment to the project and her collegial approach were exemplary.

Lesley was absolutely terrific as Project Leader. She was organised, consultative, and communicated extremely effectively at all stages of the project. More than this she was passionate about ensuring the project was high quality, meaningful and delivered on its objectives. At face-to-face meetings she chaired efficiently and ensured actions were noted and responsibility for carriage attributed. Lesley also carried the lion's share of the work involved in overall data analysis and reporting. Lesley also provided institutions with their data and comparative data along the way which was very helpful.

The Project Leader's tenacity and determination and attention to the writing of papers.

The project leader herself clearly felt this responsibility, acknowledging

I really don't think the project leader role can be handed over to someone such as an RA. If the project leader is not hands on and fully involved, it's really hard to get anything to move forward, and there are responsibilities which the project leader has to accept...

Experience as a project team member. The collaborative nature of the multi-institutional project and the opportunity to learn from other team members were greatly appreciated, as the following comments demonstrate

The constant interaction with project team leaders has been very useful. In particular the various forms of communication channels including the teleconferences and the blackboard [project] site were of particular benefit.

It was an excellent experience for me to see what is involved in executing such an extensive project with involvement from such a broad range of individuals and institutions.

Learning from other institutions in relation to aspects of method and responses to findings [was something that worked well for the collaborator].

Feedback from team and reference group members confirmed their commitment to and belief in the **value of the project**, both within their own institutions and more broadly across the sector, as the following comments evidence

I think the project's identification of retention as a second and third year issue as well as a first year transition issue is fantastic. It brings a maturity to the retention discourse that has been missing before.

The fact that the project involves such a diverse range of institutions, and the longitudinal data, make it of great value and impact.

I think the cross fertilisation of ideas across universities and also between academic and professional staff was very beneficial for this project ... This project also delivered not only valuable data from research but also institutional changes (large and small) as a result of getting access to [t]he data progressively, and also from sharing ideas at f2F meetings.

In my own uni there has been very significant change associated with the project. Because the project was designed in such a way as to have the project team largely involved in investigation and the reference group in implementation it has not, however, always been easy to draw a direct link between the project and a specific outcome ... but my uni is now talking about retention and attrition, which they weren't before, and doing something about it.

The project raised awareness of key issues in relation to retention within our institution and prompted us to talk with service providers which provided them with evidence to support changes to service provision.

Data resulting from this study supported our argument for funding for an initiative which would otherwise not have been provided.

[This project p]rovided evidence to support argument around the importance of the quality of teaching in retaining students.

I feel the project's products in terms of publications and presentations so far have been excellent. Certainly the annual [University X] Reports have themselves been useful internally.

However, there is a strong sense amongst the project team that, as valuable as the project has already been, it is concluding at a time when the most significant outcomes are still to be realised

...we are only beginning to scratch the surface in terms of the implications and conclusions that can be drawn from the data [I]t is already yielding very interesting results.

I believe the most significant products from the project will emerge over the next 18 months as we all have a chance to digest and analyse and publish and present the project's findings.

We have spent two and a half years implementing our project (plus an extra year developing it, unfunded), and now that we are in a position to really contribute something to the sector our project has come to an end and there is no further time or provision for dissemination, publication etc.

When we have presented what we have found/done at national conferences and meetings there has been a great deal of interest – demonstration, I think, of the value of our work to the sector. I just wish I was now in the position to continue work on it.

In terms of what **individual collaborators found to be valuable** to them, as might be expected, responses varied

The journal articles, one of which I have been a coauthor so far, are probably the most important for me personally but I have also been impressed by the interest that the project has received from various sections of my university.

I certainly plan to use findings to inform planning for the support and development service areas I manage - as no doubt will colleagues at [the university] who manage other service areas.

Size of the group provided valuable opportunities for extending professional networks.

3.3.1 What could have been improved?

Respondents to the evaluator's survey were asked, not only what worked well over the life of the project, but also what could have been improved about the experience. This section sets out some of the themes elicited in response to that enquiry. The following material should be prefaced with the observation that, the overall tenor of all of the responses was very positive.

Many of the comments below were not central concerns raised but were offered more as genuine and reflective contributions for possible enhancement.

Given the size and scope of this project, not unexpectedly, a start-up and ongoing challenge was both project management and communication and collaboration strategies. The fact that the project team and reference groups worked through many of these issues is again due primarily to the tenacity and drive of the project leader. Under this head, various aspects were commented on by members of both the project team and the reference groups, including: project induction, succession planning, the data gathering and analysis phase, and budgetary matters. Given that this project would seem to be exactly the type of large scale, cross-institutional collaborative venture that the ALTC might be seeking to encourage, there are some lessons to be gleaned from this experience and these comments.

Project Induction. While project induction might be a matter that may rarely arise in a smaller-scale project, with a handful of individual collaborators in only a couple of universities, in a project of this size it will always be important to ensure that variable commencing knowledge bases are acknowledged and considered. In this project, an enormous amount of preparatory work had already been undertaken before the project officially started, and the project leader was very careful to engage collaborators in the several partner institutions. Even so, and almost inevitably in a project of this size, some collaborators may nevertheless still have felt a little uncertain as the following comment demonstrates

> *As a first time participant in a project of this kind, initially, I probably would have benefited from an orientation to the mechanics of the project (and these kinds of projects in general). These emerged over the life of the project of course, and so an orientation was probably not essential but, I felt I was on the back foot with some time lines and tasks this first time through.*

As team members changed over the course of the project, this may again have been an issue, though no comment was made in this latter regard.

Data gathering and analysis. Unsurprisingly, given the magnitude of the data gathering and analysis exercise (both quantitative and qualitative, across the several institutions and over three years) and the size of the survey administered (70 questions: see Final Report, Table 3), several comments were made about this aspect of the project

> *Although it all worked out, a greater understanding at the outset of the data collection and management processes would have made it more efficient*.

> *Variation across institutions in relation to question structure in surveys and follow-up interviews. Hard to balance the need for individual questions that suit different service delivery models in different institutions but don't think we got that quite right. Some institutions didn't do follow-up interviews. Therefore not possible to compare the qualitative data across institutions. This seems wasteful and while the data is beneficial for those who did, it doesn't allow a cross-university comparison.*

> *There were some technical issues in the administration of the survey that resulted in no qualitative data being recorded for [university X] for one set of questionnaires in 2009. This has meant we can't [do] a three year comparison on our qualitative survey data.*

> *Survey too long - this means quite a large number of students opened but didn't complete the survey.*

Budgetary aspects. There is clearly an issue for the ALTC to consider in relation to the budgetary allocation for a large-scale project of this type. It was fortunate (and critical) that so much preparatory work was done prior to the project's commencement – quite simply the

project could not have afforded, financially and in terms of human resourcing, to have undertaken that work also. The necessity for face-to-face meetings for project teams has been repeated many times now in project evaluations and some standard, budgetary allocation might be usefully made in ALTC grants to cover these costs, calculated by reference to the size of the team and where team members are located (e.g., Western Australia), so that larger teams and team members whose travel is more expensive are not penalised. The ALTC already makes an allocation for certain team members to attend ALTC activities; this type of reserved allocation might be similarly made for large, geographically dispersed teams. Evaluation comments on this matter included

> *The money probably stretched too thinly because the project involved too many unis over too long a time, but this was also a real strength of the project so I wouldn't change it.*

> *In retrospect we should have built in more funding for face-to-face communication and dissemination. We did allocate more money to these things retrospectively... Perhaps ALTC could play a role in connecting people so that similar issues are not repeatedly confronted by new project teams.*

Organisational aspects. Over the course of this three year project, both minor and major organisational matters arose. The issue of succession planning and attrition was a key issue. As one team member said – it was '*important ...to have 2 [collaborators] from each institution to cover attrition and succession planning*' – however it was also recognised that, in some institutions if not also more generally, this may not always be possible. Comments under this head included

> *Staff attrition during the project has caused several concerns as project tacit knowledge 'walks out the door' without a paper trail.*

> *In terms of processes I would not have predicted that succession planning would be such a necessary consideration in this project. Possibly that could have been improved but the participating institutions need to have the range of personnel to make succession planning possible!*

> *Perhaps we needed an overall project reference group as well as the ref groups at each uni acting as the defacto reference group for the whole project.*

3.3.2   Concluding comment.

However, as the tenor of this report conveys, this project was enormously successful and many of the issues raised under the improvement head did not ultimately detract from the collaborators' sense of the value of the project and the collaborative experience generally. As with all endeavours, with the benefit of hindsight, some things could always have been done a little differently and things arranged to greater advantage. However, it is worthwhile to conclude this section on a positive note and, as one collaborator said in their feedback, offering advice to others who might consider being involved in a project of this nature

> *I would only suggest that they enjoy it – it has been a fantastic experience to be working with such competent and switched on people! It has also been a fantastic learning experience. I would also suggest that they should expect the time to go incredibly quickly.*

3.4   Comparison of this project's and team's experience with the 'Key Learnings' and 'Key Challenges' indentified in the 2008 ALTC document _Operational learnings of ALTC project holders_.

In 2008, the ALTC undertook an analysis of the 'day to day operations of the grants program, the reported experiences of grants scheme project teams, and feedback from the sector, over the years 2006-2008' (_Operational learnings of ALTC project holders_, ALTC, 2008, 1) and summarised the 'key operational issues specific to project holders'. This analysis revealed the following five key learnings and key challenges for project holders, as reported by project teams (ALTC, 2008, 1), many of which resonate with the current project team's experience:

Key learnings

- _Ensuring senior-level executive and institutional support for the project_
- _Having effective dissemination strategies in place at the outset which promote the embedding of findings and outcomes_
- _Ensuring effective and sustainable communication and collaboration within and external to the project team_
- _Systematic and carefully planned project management_
- _Continuous and critical reflection on the project progress and capacity for flexibility with regard to project management, activities and outcomes_

Key challenges

- _Staff recruitment and staff turnover on the project team_
- _Ensuring project recognition, endorsement and uptake_
- _Dealing with unexpected costs and delays_
- _Managing ethics approvals_
- _Ensuring effective and continuous collaboration and communication with project partners_

Key Learnings.

Under the **key learnings** head, as their reported reflections evidence, in a difficult context and with minimal resourcing, this project team and its project leader worked valiantly to ensure effective and efficient **project management and planning**, and to attend to the demands of maintaining sustainable **communication and collaboration** strategies, both within and external to the project team. The project team and leader repeatedly demonstrated that they were acutely aware of the nuanced and varying communication needs of various stakeholder groups and the attention required to encourage collaboration over the project life cycle: for example

- to 'build intra-university relationships with key service and support sections outside the project group in each partner institution prior to project commencement' (Final Report, 3.5);
- to 'involve the reference group[s]' not only for their expertise and advice, but also as champions and as a 'critical mass' for project implementation and dissemination (Final Report, 3.5);
- to concentrate efforts at key times, such as the data gathering phase;
- _to_ 'facilitate genuine input and learning by all partners' by way of the lead institution taking the initiative to share (e.g.) templates of presentations and reports, the literature database, and by then all members taking responsibility for working collaboratively on (e.g.) disseminations (Final Report, 4.4).

As it needed to be for such a large scale, multi-institutional project, careful attention was paid to the development of an effective and efficient project management and communication

strategy that ultimately saw a range of initiatives and channels coalesce: annual face-to-face meetings; teleconferences, telephone and email contact; dedicated institutional visits and continual oversight by the project leader and manager; and the harnessing of a supportive IT infrastructure (especially, in the form of a project management website (that enabled the sharing of documents and ideas to enhance project outcomes, though interaction and postings were limited), and through the development and sharing of an Endnote file that allowed direct access to relevant literature without breaching copyright restrictions).

The project team professed itself 'very happy' with the appropriately multi-faceted communication strategy deployed (National Team Meeting, July 2009). Team and reference groups' feedback comments reinforced how essential these various channels were over the life of the project

> *[What worked well was t]he decision (not in the original project plan) to have annual national meetings where we could come to understand the diversity of needs and opinions, and discover some great ways forward and activities not previously considered.*

> *The project website set up initially was useful as a communication point for those of us in the Reference Group. I found we used this less as the project matured.*

> *Embracing even more advanced communication technologies (ie Skye etc) will make it an even more productive process.*

It was well observed (Final Report, 3.5) that, in a project of this magnitude, there is a need to communicate both at the national level and also at the local level 'to effectively balance local differences against the need for national consistency, and for national data to be able to be used to increase local impact'.

There is no doubt from the evaluation perspective that this project was very effectively and efficient managed, as evidenced in the following non-exhaustive respects

- the positive feedback received (set out at 3.3 of this report above) as regards the project leader's management capacity and skills demonstrated across the multi-institution project;
- the project's ability to respond constructively to changing circumstances;
- the effective communication strategies deployed generally (as outlined in this section) and especially around team consultation and meetings;
- adherence to the project timeline;
- efficient and effective budget monitoring;
- detailed and accurate record keeping and timely reporting to the ALTC;
- the rigorous and proactive management of the project plan and achievement of the project's deliverables in ways that lead to the required outcomes without compromising cooperation.

In relation to the key learning around having '**effective dissemination strategies** in place at the outset', to a large extent in this project the original application sought to deal with dissemination proactively and effectively, while the project plan subsequently developed (Final Report, Table 2) fleshed out that original strategy in greater detail. **Continuous and critical reflection** on project processes and progress saw dissemination strategies emerge as a revisited theme, in varying contexts, over the life of the project: for example

- '*Disseminate **internally** from inception'* for resonance, sustainability and as an aspect of a broader communication strategy to raise awareness and encourage institutional buy-in (Final Report, 4.4);
- '*Document activity, progress and outcomes on a regular basis'* to make the vital causal link between project activities and outcomes generated (Final Report, 4.4);

- '*Begin dissemination activities as soon as possible'* (Final Report, 5.3); and
- '*Disseminate both within and across universities*...a balance between local and national dissemination is important to facilitate widest possible uptake of project findings and outcomes' (Final Report, 5.3).

The Final Report also evidences plans to disseminate beyond the 'official' life of project, a strategy that is supported by collaborators' feedback (above).

The key learning identified around '***Ensuring senior-level executive and institutional support for the project'*** is the subject of a specific area of advice to the ALTC in the next section (as regards the possibility of requiring institutional leaders to report on what they have done to 'facilitate and sponsor institutional uptake of project outcomes', beyond the initial application sign-off (Final Report, 4.4).

Key challenges.

Under the **key challenges** head, many of the statements in the 2008 *Operational Learnings* document (ALTC, 2008) as regards **staff recruitment and staff turnover** on the project team, including partner institution withdrawal, could have been written about this project.

> *Key challenges faced by current project leaders include partner institutions withdrawing, less than expected level of participation by partner institutions, and unforeseen internal restructuring or work-load changes for team members. (ALTC, 2008, 2)*

Staffing churn and the roles, responsibilities and recognition of project personnel were critical factors in this project's development. There was clear evidence of an intention in the project design to select '*partner staff and universities...who genuinely care about the outcomes of the project and [would] have the time and energy to make sure things happen as and when they should. It is also helpful to have within each partner university a team member with identifiable position power, as this lends credibility to the project and facilitates change arising from the project*' (Final Report, 4.4).

There is also valuable reflection recorded in the several project reports to the ALTC about a variety of personnel matters, including reflection on challenges such as

- appropriate recognition of the different roles and contributions of reference group members, which varied amongst both institutions and individual reference groups (ranging from reference group members working closely with project team members to develop implementation strategies and provide access to dissemination networks, to those who adopted the 'occasional advisory role')

  > *A means needs to be found to ensure that active reference group members, and not just project team members, receive appropriate recognition and reward for their involvement in the project.*' (Final Report, 3.5)

- similarly, how to ensure '*equitable distribution of opportunity and recognition*' for project team members (Final Report, 4.4);
- how to juggle and scope the '*project manager/research assistant role'* to fit the funding available, especially in the context of a multi-institutional project (Final Report, 3.5); and
- as highlighted in the feedback from project team and reference groups members above, the need to engage in succession planning: Final Report, 3.5

  > *Between the time the competitive grant was awarded and the funding arrived, we had already lost a project team member to employment at another university. Subsequently, project team or reference group membership has been affected by retirement, redundancy, resignation, changes of role, hospitalisation, and maternity*

> *leave. These unexpected changes highlight the critical importance of having more than one project team and reference group member at each university, and also the importance of those involved in the project having built wider enthusiasm for the project so that new recruits to the team can be found when necessary.*

Again, from the evaluation perspective, all of these various challenges were accommodated and managed, at some cost it must be said, to the project leader, who shouldered the brunt of the burden, despite her own difficult institutional circumstances. The project was extremely fortunate to have had someone of Dr Willcoxson's calibre and integrity engaged in this work as the project leader. Various strategies are suggested in the Final Report to help alleviate the effects of such challenges (e.g., distribute the funds as evenly as possible as an incentive to encourage greater responsibility for project outcomes in partner institutions (Final Report, 4.4); spread responsibility amongst specified individuals for ensuring outcomes delivery (e.g., identify a 'paper champion' to drive development of publications (Final Report, 5.3)). However, in the end, as was recognised in this project, the ultimate responsibility for the project achieving its outcomes, on current accountabilities, rests with the project team and the project leader.

Finally under the key challenges head, I mention briefly the subject of **ethics**. This project was in a much better position than many, given the preparatory (unfunded) work that included the obtaining of the ethics approval, in advance of the project's commencement. Even so, an issue in relation to ethics arose – how to protect institutional identity when sensitive data are being presented (Final Report, 5.3). As was commented at the National Project Team meeting in July 2009 – 'ethics is an issue again'. Ethics was an issue that was managed, so there is no evaluation consequence here, but the inevitability of ethics being a somewhat constant 'issue' even in the best planned and managed projects remains a concern for the ALTC Grants Scheme.

4.0   General observations and comments for the ALTC regarding similar projects.

Being conscious that the ALTC has recently suffered its own budget cuts, none of the following comments, many of which have budgetary implications, is made lightly. However, in the interests of securing value for the money that is ultimately allocated, following an increasingly competitive process, and in an effort to seek to assure the quality of the experience for grant team and reference group collaborators, the following observations are made. Many of these, as discussed earlier in this report, are matters that have been raised previously in reviews and/or in other evaluations performed.

The issue of a differential budgetary allocation for larger, more diverse and geographically spread, teams has been mentioned above (at 3.3.1) and will not be repeated here. Similarly, many of the lessons gleaned from the experience of this large project that might usefully be shared with future applicants have already been discussed above and will not be reiterated.

Many of these lessons continue to be common across projects and, building on the analysis set out in the *Operational learnings* document (ALTC 2008), the ALTC might consider it useful to prepare a 'cheat sheet' of handy hints for a project's start up, that is made available to both intending and successful applicants on the ALTC website, to leverage this expanding knowledge base of common implementation issues. In this way, applicants and teams would be informed in advance of key potential challenges and be in a position to proactively devise possible strategies to work around them (e.g, regarding project induction, an annual (or commencing) face-to-face team meeting for team building, succession planning, clarity around responsibility sharing, models for the constitution and role of reference groups, etc).

Other comments on the project experience which should be of interest to the ALTC regarding the Grants Scheme, particularly from this project's collaborators, include the following matters.

The *value of longer-term projects*

> *Despite the very considerable difficulties we have faced over the three years as a consequence of job loss, resignation and redundancy, I think there is immense value for ALTC in longer-term national projects, and I feel that these are well worth funding.*
> *ALTC consider funding longitudinal studies for longer periods of time e.g. remove 2-year restriction.*

The desirability of embedding further **accountability for institutional leaders** regarding projects they have sponsored

> *...critical that ALTC requires funded universities (at DVC level) to report annually on what they have done in their own universities to support the project for which they have been funded and to facilitate wider uptake of its outcomes. We have one uni (XXXX) where they not only made redundant our local project leader, but refused [the person] access to the funds associated with the project. ... It cannot be just the individuals who bring in the money who are held accountable to ALTC for success or failure!!*

A request that the **ALTC facilitate sharing, dissemination and project processes** a little more proactively – for example

> *...assistance with dissemination,... community building amongst grantees etc. ... ALTC could do more to facilitate contributions from and learning by all.*
> *ALTC might fund the sort of national events that CAUT funded in the early 1990's – two day workshops showcasing the outcomes of grants. These were extremely well attended (about 500 people?) and... could also be used as a means of building new activities on the base of what has gone before (e.g. if there were a session set aside for exploring future possibilities related to retention and attrition in later years we could share our data and help people identify what they needed to do and how they might construct other ALTC applications relevant to this area).*
> *Provide clear advice to project managers/leaders around the budget required when multiple institutions that are geographically spread are involved. Stress the importance of face-to-face meetings and allowing adequate funding for these.*
> *Provide clear guidelines to project managers re the roles of reference groups. In every project we've been involved in as members of teams or on ref groups the roles and responsibilities of these groups have been very different.*

Some *practical advice* also

> *Longer period of time needed between completion of project and completion of final report.*
>
> *The ALTC template for the final report is very poor... Although I have experience using tables of content, it was not possible; the default (and unchangeable) language is US, not Australian, English; they have used anchor points which make it very difficult to paste in certain areas; etc, etc*

5.0   Conclusion.

This evaluation identified specific indicators of success and has assessed the project against them. Within the constraints of time, resourcing, staff turnover, and one partner institution's departure, this project has achieved considerable and significant outcomes and impact. The project team members, the reference group members, and the project leader in particular are to be commended for their enthusiastic, passionate and dedicated pursuit of the project outcomes. There is little if anything to fault in the way this project has been conducted and much to praise. Valuably, from the ALTC's perspective and for the benefit of future projects,

there is a considerable amount of thoughtful reflection and advice that has been communicated in project reporting about the lessons that have been learnt and the critical success factors that have been identified. It is also entirely appropriate and desirable that, as one collaborator has commented '*significant products from the project will emerge over the next 18 months as we all have a chance to digest and analyse and publish and present the project's findings'.*

The Whole of University Experience Project has made a significant contribution to our understanding of the factors associated with attrition over the student life cycle (especially second and third years) and has facilitated discussion around frameworks for effective, evidence-based interventions in response.