

Faculty of Agriculture, Food and Natural Resources

Student Research Experience Questionnaire Report : 2005 - 2009

September 2010

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EXECUTIVE SUMMARY

INTRODUCTION

Data on research higher degree students' perceptions of their research training experiences are gathered each year using the Student Research Experience Questionnaire (SREQ). The purpose of the SREQ is to provide the University community with a basis for strategic, faculty level academic development and curriculum review to further enhance the quality of research higher degrees. Analysis of this data provides a comprehensive picture of trends in the student experience, and the performance of the Faculty in relation to two of the University's Key Performance Indicators for Research: Supervision, and Overall Satisfaction with the research higher degree; and other related areas: Infrastructure; Research Climate; and Generic Skills.

Written observations, from respondents to the survey, about their experiences provide evidence to support the Faculty SREQ quantitative data results (percentage agreement scores), and provide detailed information about key issues in the Areas of best practice and Areas needing improvement, during their research training experience. The results are directly aligned with the scales and survey items used in the SREQ, with the addition of items that occur frequently in student comments.

KEY RESULTS FOR 2009

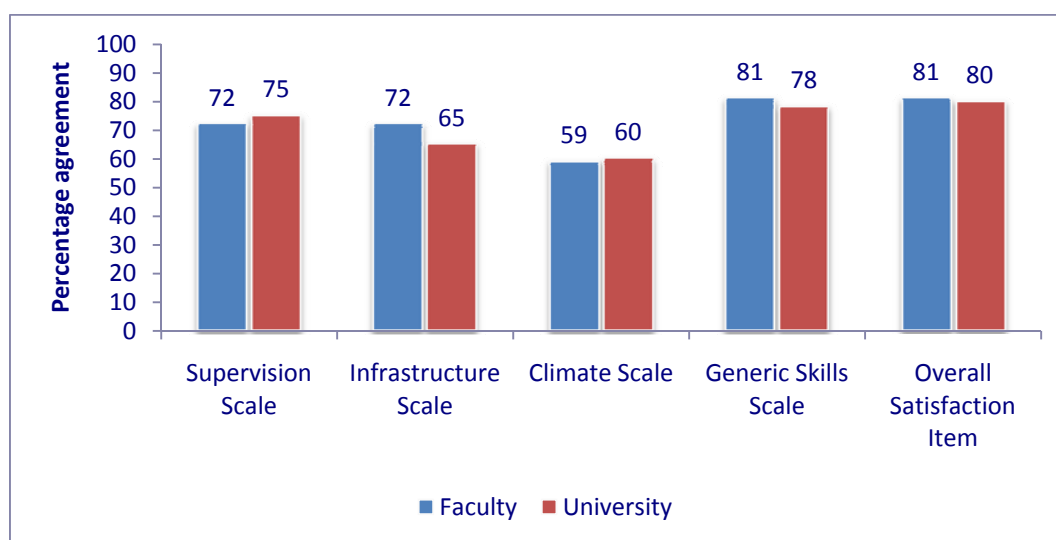
The following results are an indication of those areas of the student experience that were of significance to research higher degree students during 2009. The Faculty scores (percentage agreement results) reflect the experiences of respondents in relation to specific items in the survey; the qualitative data reflects the analysis of written observations provided by those respondents who answered the open ended questions on the best areas of their experience and those that were considered to be in need of improvement.

1 Quantitative data

The following chart compares the 2009 SREQ percentage agreement results (i.e. respondents who either agreed or strongly agreed with the survey items relating to each scale) for the Faculty and for the University.

61 research higher degree students (43 domestic and 18 international) responded to the 2009 SREQ.

Figure 1: Comparison of University and Faculty of Agriculture, Food and Natural Resources: Percentage agreement results: SREQ 2009



As indicated in the above chart, Faculty scores are higher than the University average for Infrastructure, Generic Skills, and Overall Satisfaction, and 1-3% lower in Supervision and Climate. At a Faculty level the 2009 SREQ scores for all scales have increased since 2008 in all areas except Supervision, where there was a 2% decrease¹.

¹ See Sections 1-5 of the report for details of trends in each SREQ Scale since 2005, and a comparison of the results for domestic and international students.

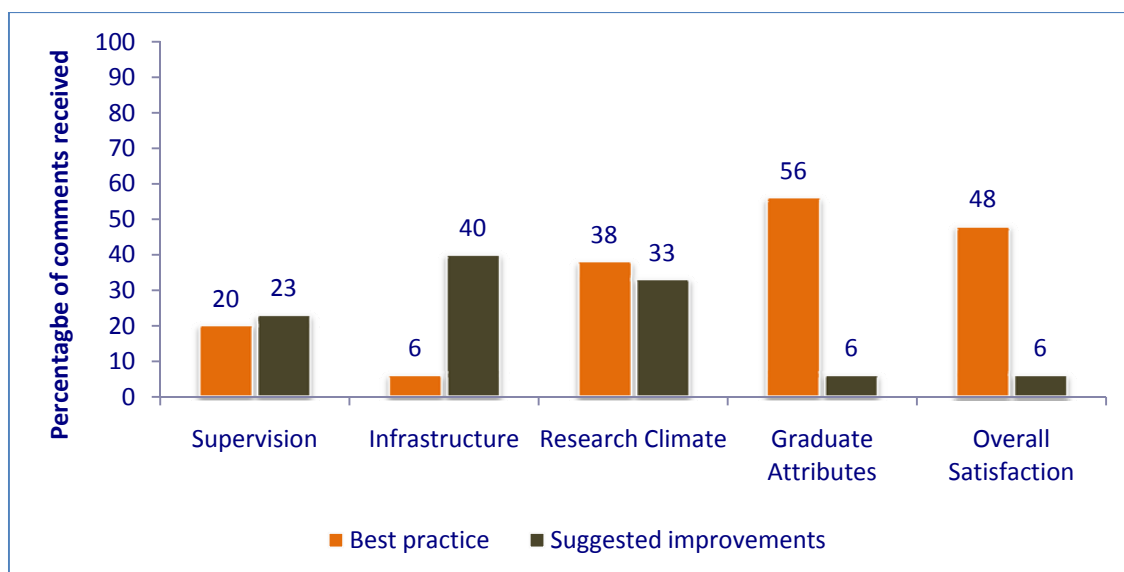
2 Focus of written observations SREQ 2009

50 respondents to the 2009 SREQ (34 domestic students; 16 international students) answered the open question requesting comments on areas of best practice in their research higher degree experience; 48 respondents (32 domestic students; 16 international students) suggested areas in need of improvement.

2.1 An overview

The following chart provides an overview of the research higher degree student experience of research training in the Faculty of Agriculture, Food and Natural Resources, as indicated in their responses to the open questions in the 2009 SREQ. It demonstrates the relationship between areas of best practice, and areas in need of improvement for each of the Scales. Results are reported as a percentage of the total number of comments received per student group.²

Figure 2: Faculty of Agriculture, Food and Natural Resources: Focus of written observations: SREQ 2009



2.2 Key issues

2.2.1 Quality of Supervision

- Aspects of the Quality of Supervision that were considered to be of best practice by 20% of respondents to the SREQ in 2009 included: supervisor(s) –usefulness of meetings, support and expertise of individual supervisors (12% of comments received); and management of candidature (6%)
- Aspects that were considered to be in need of improvement by 23% of respondents included: management of candidature (10%); and supervisors (10%).

2.2.2 Quality of infrastructure

- All comments received that mentioned aspects of the Quality of Infrastructure as an area of best practice related to library services (6% of comments received).
- Aspects that were considered to be in need of improvement by 40% of respondents included: facilities (21%); and funding, scholarships etc (10%).

2.2.3 Research Climate

- Aspects of the Research Climate that were considered to be of best practice by 38% of respondents to the SREQ in 2009 included: being part of a research community (18% of comments received); experiencing a supportive work environment, that was challenging and stimulating (14%); and location and physical environment (6%)
- Aspects that were considered to be in need of improvement by 33% of respondents included: the prevailing work environment – integration into faculty/ department, respect as a fellow researcher (17%); interaction with other research higher degree students (6%); and aspects of research community (8%)

² See Attachment 1: note 4 for an explanation of the analysis and counting of comments

2.2.4 Graduate Attributes

- 56% of respondents to the 2009 SREQ mentioned the development or enhancement of tasks and abilities in all of the University Graduate Attribute clusters: Communication skills (6% of comments received); Ethical, social, professional understanding (2%); Information literacy (10%); Personal and intellectual autonomy (8%); and Research and inquiry (24%).
- Aspects that were considered to be in need of improvement by 6% of respondents included: Communication skills (4%); Personal and intellectual autonomy (2%)

2.2.5 Overall Satisfaction

- Aspects of Overall Satisfaction that were considered to be of best practice by 48% of respondents to the SREQ in 2009 included: Flexibility of program (14% of comments received); Quality of degree (8%); and Satisfaction with research (24%).
- 6% of respondents were dissatisfied with aspects of Overall Satisfaction.

FOR MORE INFORMATION

On the analysis and reporting of qualitative data

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SREQ Faculty reports (2003 – 2009) are at: http://www.usyd.edu.au/learning/evaluating/sreq_or.shtml

On SREQ and how to interpret results

Staff of the ITL are available to provide support to faculties in the interpretation of the SREQ data and the development of strategic responses to address any issues identified
Phone: + 61 2 9351 3725
Email: itl@sydney.edu.au

SREQ results and reports are at <http://www.itl.usyd.edu.au/sreq/secure/rrr.cfm>

INTRODUCTION

STUDENT RESEARCH EXPERIENCE QUESTIONNAIRE (SREQ)

In 2002 the Institute for Teaching and Learning (ITL) began collecting data for The University community on research higher degree students' perceptions of their research training experiences. This data is gathered each year using a survey specifically developed for this task, the "Student Research Experience Questionnaire" (SREQ). The purpose of the SREQ is to provide the University community with a basis for strategic, faculty level academic development and curriculum review to further enhance the quality of research higher degrees. The SREQ is based on a national survey of research higher degree students, the Postgraduate Research Experience Questionnaire (PREQ). Some of the information gathered by the SREQ survey also contributes to two of the University's Key Performance Indicators for research. These KPIs are the quality of Supervision, and Overall Satisfaction with the research higher degree.

The survey gathers data on students' perceptions of the quality and frequency of supervision, intellectual and social climate, infrastructure, approaches to research, and generic skills development in their research higher degree, as well as their perceptions of the administration and student support services. The ITL analyses this data and provides a range of reports to staff and students of the university through this web site.

Students are asked to respond to statements using a five point Likert Scale to indicate the extent to which they agree or disagree with each statement. As part of the questionnaires, students are also asked to comment on the following questions:

- *What are the best aspects of your research higher degree experience? Please explain why these aspects are good.*
- *What aspects are most in need of improvement? Please explain why*

Quantitative and qualitative data from the SREQ provide evidence of the success of University and Faculty initiatives to improve the overall student experience in general and the student experience of research training in particular.

FOCUS OF THE REPORT

Based on the answers to the SREQ, this report seeks to provide an analysis of observable trends in the postgraduate research student experience in the Faculty of Agriculture, Food and Natural Resources between 2005 and 2009.

Information is arranged by the following areas of the research higher degree student experience: Quality of Supervision, Quality of Infrastructure, Research Climate, Graduate Attributes, and Overall Satisfaction, which, taken together, comprise the student experience of research training within the Faculty.

FOCUS OF WRITTEN OBSERVATIONS FROM RESPONDENTS

By examining the foci of the students' comments in the 2009 SREQ, this report seeks to highlight areas that were of best practice in the students' experience, together with those that have been suggested as areas of improvement. The views of the research higher degree students, on their overall experience at the University, as received through the open response comments, are a valuable insight into what is important to them; what they consider to be areas of best practice; and what they consider are in need improvement.

It is important to remember, when looking at the results of the analysis of this data, that the absence of favourable comments on a particular aspect of learning and teaching does not reflect that this is not an area of best practice. Rather, it could be interpreted that the students were happy with their experiences, and prefer to focus on commenting about areas in need of improvement.

NB: In 2010 a review of the taxonomy used in the analysis of comments from the SREQ was undertaken in conjunction with staff from the ITL. This resulted in reassignment of Flexibility of program and Pressure to complete from Supervision to Overall Satisfaction, and the realignment of aspects within Graduate Attributes to match the Clusters, Tasks and abilities within the University Graduate Attributes framework. The analysis of qualitative data from 2005 – 2008 has been updated to match the revised criteria. A list of the categories, sub-categories and components is at Attachment Two

Notes relating to the analysis and counting of comments are provided in Attachment One.

GLOSSARY

The following terms and phrases are used throughout the report

SREQ	Student Research Experience Questionnaire Administered to postgraduate research students annually, during second semester
Supervision Scale Infrastructure Scale Climate Scale Generic Skills Scale Overall Satisfaction Item	The University of Sydney Student Research Experience Questionnaire (SREQ) is based upon the items included in the nationally administered Postgraduate Research Experience Questionnaire (PREQ). These items have been shown to cluster together to form factor scales: <ul style="list-style-type: none">• Supervision• Infrastructure• Climate• Generic Skills• Overall Satisfaction Item Within the report, this naming convention is used to identify information relating to the analysis of the quantitative data (survey items)
Faculty Scores Percentage agreement	SREQ item responses are combined and reported in terms of the proportions of students who agreed or disagreed that their research higher degree experience was positive in the areas of: Supervision; Generic Skills; Infrastructure; Climate; and Overall Satisfaction
Quality of Supervision Quality of Infrastructure Research Climate Graduate Attributes Overall Satisfaction	The University of Sydney Student Research Experience Questionnaire (SREQ) is based upon categories used in the SREQ Taxonomy: <ul style="list-style-type: none">• Quality of Supervision• Quality of Infrastructure• Research Climate• Graduate Attributes• Overall Satisfaction Within the report, this naming convention is used as headings for each section of the report, and to identify information relating to the analysis of the qualitative data (written observations).
Qualitative data Focus of written observations	Students' written observations received in response to open ended questions in the SREQ: <ul style="list-style-type: none">• What are the best aspects of your research higher degree experience? Please explain why these aspects are good• What aspects are most in need of improvement? Please explain why
Percentage of comments received	The number of times an aspect is mentioned within written observations of respondents received from respondents is presented as a percentage of the total number of comments received from respondents to the SREQ in any particular year.
Key issues	As a general rule, only those aspects which receive over 5% of comments from the <u>whole</u> cohort (i.e. domestic and international combined; all respondents per degree) are considered significant enough to be included as key issues in the report.

1 QUALITY OF SUPERVISION

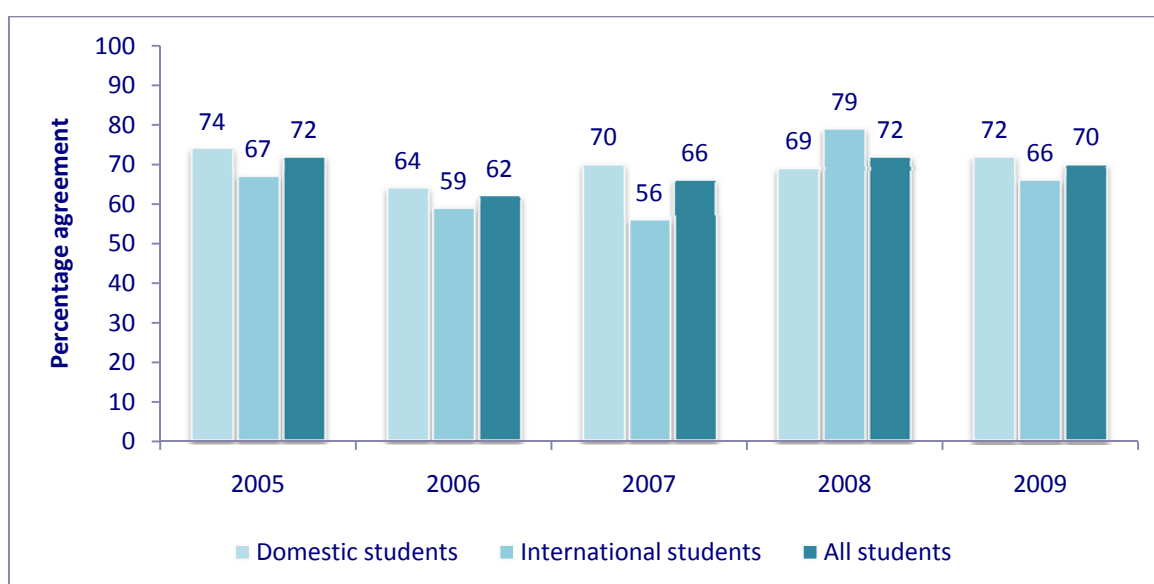
1.1 BACKGROUND INFORMATION

The *Supervision Scale* covers aspects of supervision including: supervision being available when needed; understanding by the supervisor(s) of difficulties; provision of additional information relevant to the thesis topic by the supervisor; provision of guidance in topic selection and refinement; provision of helpful feedback on progress; provision of good guidance in literature search; and overall satisfaction with quality of supervision.

1.2 COMPARATIVE RESULTS: QUANTITATIVE DATA 2005–2009

The following graph shows the proportion of students who either agreed or strongly agreed with relevant Supervision Scale survey items in the SREQ between 2005 and 2009.

Figure 3: SREQ Supervision Scale: percentage agreement results: 2005 - 2009



1.3 COMPARATIVE RESULTS: FOCUS OF WRITTEN OBSERVATIONS 2005–2009

The following table shows the percentage of comments, received from respondents to the survey, which can be classified as either areas of best practice or areas for improvement, providing an indication of trends in the focus of students' comments relating to the Quality of Supervision between 2005 and 2009.

		2005	2006	2007	2008	2009
<i>Areas of best practice</i>	Domestic	13%	22%	21%	14%	18%
	International	17%	19%	15%	39%	25%
	All	14%	21%	19%	21%	20%
<i>Areas needing improvement</i>	Domestic	30%	38%	44%	38%	25%
	International	0%	14%	21%	13%	19%
	All	27%	31%	38%	30%	23%

1.4 KEY ISSUES FOR RESEARCH HIGHER DEGREE STUDENTS (SREQ 2009)

1.4.1 Areas of best practice

	Domestic (n=34)	International (n=16)	All (n=50)
Quality of Supervision	18%	25%	20%
- Supervisor(s)	12%	13%	12%
- Management of candidature	3%	13%	6%

Sample comments

- *The ability to govern nurture my own research. My supervisor does his job properly: He supervises. While I am able to create and follow my own research paths, my supervisor makes sure I do not waste time following dead ends or put my project in hot water by taking too much on*
- *The supervision. My supervisors are very helpful to me in the research guidance and also problems solving*
- *Good and supporting supervisor*
- *Supportive supervisor Good combination of skills and knowledge on my supervisory team (1 supervisor, 2 associate supervisors)*

1.4.2 Areas needing improvement

	Domestic (n=32)	International (n=16)	All (n=48)
Quality of Supervision	25%	19%	23%
- Supervisor(s)	6%	19%	10%
- Management of candidature	16%	0%	10%

Sample comments

- *I think I would have needed to get more information on how to organise my research and the whole of my PhD. I could also discuss that with my supervisor but as he is extremely busy, it is better to talk about actual research when we meet. Other students have been helpful as well but I guess it would be good to have some sort of informative session during the first semester to tell us what is expected in term of outcome, especially the thesis format, length*
- *Supervision - there are no standards by which supervisors are assessed. If they are going to take on students outside their research area, they should make an effort to understand the methodology and the issues investigated*
- *Supervisor role to be clearly outlined to the student. Would improve student confidence in own project outcomes*
- *The supervisor's input, interest and effort is very much needed for the successful and timely completion of the project. However, unfortunately, I so unlucky that both of my supervisors extremely lack to provide me the necessary technical and academic support. They should always follow up the progress of the student and should be accountable for the student's success or failure*

2 QUALITY OF INFRASTRUCTURE

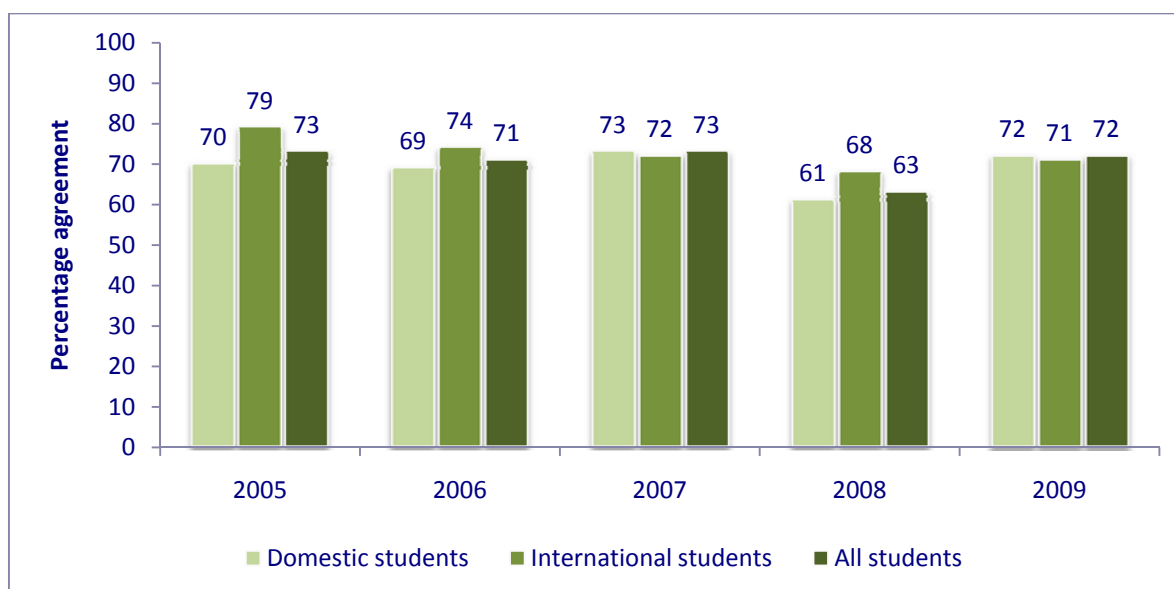
2.1 BACKGROUND INFORMATION

The *Infrastructure Scale* covers aspects of the infrastructure available to research students, including: access to a suitable working space; access to technical support; access to a common room; access to necessary equipment; access to computing facilities and resources; appropriate financial support; and overall satisfaction with the quality of services and facilities.

2.2 COMPARATIVE RESULTS: QUANTITATIVE DATA 2005–2009

The following graph shows the proportion of students who either agreed or strongly agreed with Infrastructure Scale survey items in the SREQ between 2005 and 2009.

Figure 4: SREQ Infrastructure Scale: Percentage agreement results: 2005 - 2009



2.3 COMPARATIVE RESULTS: FOCUS OF WRITTEN OBSERVATIONS 2005–2009

The following table shows the percentage of comments, received from respondents to the survey, which can be classified as either areas of best practice or areas for improvement, providing an indication of trends in the focus of students' comments relating to the Quality of Infrastructure between 2005 and 2009.

	2005	2006	2007	2008	2009	
<i>Areas of best practice</i>	Domestic	24%	14%	33%	14%	3%
	International	67%	38%	5%	11%	13%
	All	29%	21%	25%	13%	6%
<i>Areas needing improvement</i>	Domestic	42%	62%	51%	50%	34%
	International	60%	79%	53%	100%	50%
	All	44%	67%	52%	64%	40%

2.4 KEY ISSUES FOR RESEARCH HIGHER DEGREE STUDENTS (SREQ 2009)

2.4.1 Areas of best practice

	Domestic (n=34)	International (n=16)	All (n=50)
Quality of Infrastructure	3%	13%	6%

Sample comments

- and the library resources for distance students are great!
- All the facilities and support Sydney University provides us
- Easy access to literature though library and databases

2.4.2 Areas needing improvement

	Domestic (n=32)	International (n=16)	All (n=48)
Quality of Infrastructure	34%	50%	40%
- Facilities	19%	25%	21%
- Finance and funding (incl. scholarships)	6%	19%	10%

Sample comments

- Computer support and delivery. It took 3 months to obtain my personal computer. There is no support for Linux-based software - which is important for my research
- Physical infrastructure. The buildings of the Agriculture Faculty are unsuitable for facilitating social contact and also for laboratory work
- Lack of latest equipment, infrastructure and expertise in advance technologies
- Financial support from faculty for equipment etc etc

3 RESEARCH CLIMATE

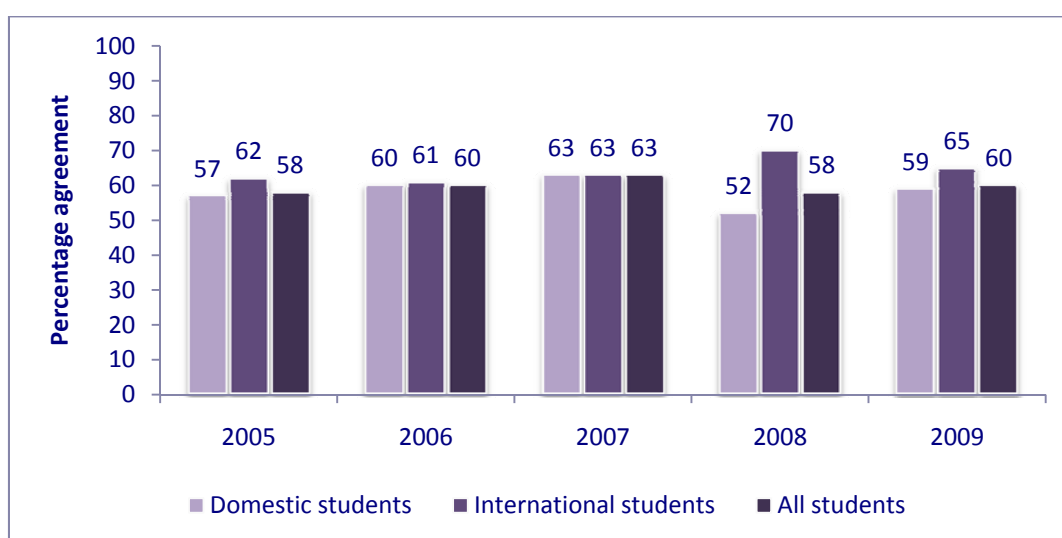
3.1 BACKGROUND INFORMATION

The *Climate Scale* covers aspects of the prevailing research climate in a students' school/ department, including: opportunities for social contact with other postgraduate students; integration into the school/ department community; opportunities to become involved in the broader research culture; perception of other research students as supportive; feelings of isolation within the school/ department; encouragement of interaction with other research students; provision of a good seminar programme; stimulation of personal work by the prevailing research ambience; provision of a supportive work environment; and feeling respected as a fellow researcher.

3.2 COMPARATIVE RESULTS: QUANTITATIVE DATA 2005–2009

The following graph shows the proportion of students who either agreed or strongly agreed with Climate Scale survey items in the SREQ between 2005 and 2009.

Figure 5: SREQ Climate Scale: Percentage agreement results: 2005 - 2008



3.3 COMPARATIVE RESULTS: FOCUS OF WRITTEN OBSERVATIONS 2005–2009

The following table shows the percentage of comments, received from respondents to the survey, which can be classified as either areas of best practice or areas for improvement, providing an indication of trends in the focus of students' comments relating to Research Climate between 2005 and 2009.

		2005	2006	2007	2008	2009
<i>Areas of best practice</i>	Domestic	38%	53%	48%	56%	41%
	International	50%	75%	20%	44%	31%
	All	39%	60%	40%	52%	48%
<i>Areas needing improvement</i>	Domestic	56%	35%	42%	43%	31%
	International	60%	50%	53%	19%	38%
	All	56%	40%	45%	36%	33%

3.4 KEY ISSUES FOR RESEARCH HIGHER DEGREE STUDENTS (SREQ 2009)

3.4.1 Areas of best practice

	Domestic (n=34)	International (n=16)	All (n=50)
Research Climate	41%	31%	38%
- Research community	18%	19%	18%
- Work environment	15%	13%	14%
- Location and physical environment	9%	0%	6%

Sample comments

- *The workplace - Camden campus is beautiful and relaxed*
- *An 'excuse' to network extensively with industry, government and other researchers*
- *The collaborative environment fostered by postgraduates, academics within the faculty and visiting academics is by far the best aspect of my higher degree by research. It enables me to bring ideas into different forums, get feedback, hear opinions and further develop my own work, as well as share my skills with other postgraduates in turn*
- *The support provided to international students is also the best*

3.4.2 Areas needing improvement

	Domestic (n=32)	International (n=16)	All (n=48)
Research Climate	31%	38%	33%
- Work environment	22%	6%	17%
- Research community	3%	19%	8%
- Interaction with other students	6%	6%	6%

Sample comments: domestic students

- *I think the faculty and the university should encourage and provide assistance for collaboration within research students. This experience is needed for future professional research and improve research efficiency*
- *I have no sense of involvement in the faculty's research areas - I don't have time to involve myself and there's little encouragement from others*
- *Integration with fellow postgraduate in the same field should be improved. At least a meeting with all, once in a month or two months once. Because this can be an exchange of idea and also experience*
- *As a distance student located [some distance] from Sydney, I am often forgotten about or not catered for*

4 GRADUATE ATTRIBUTES

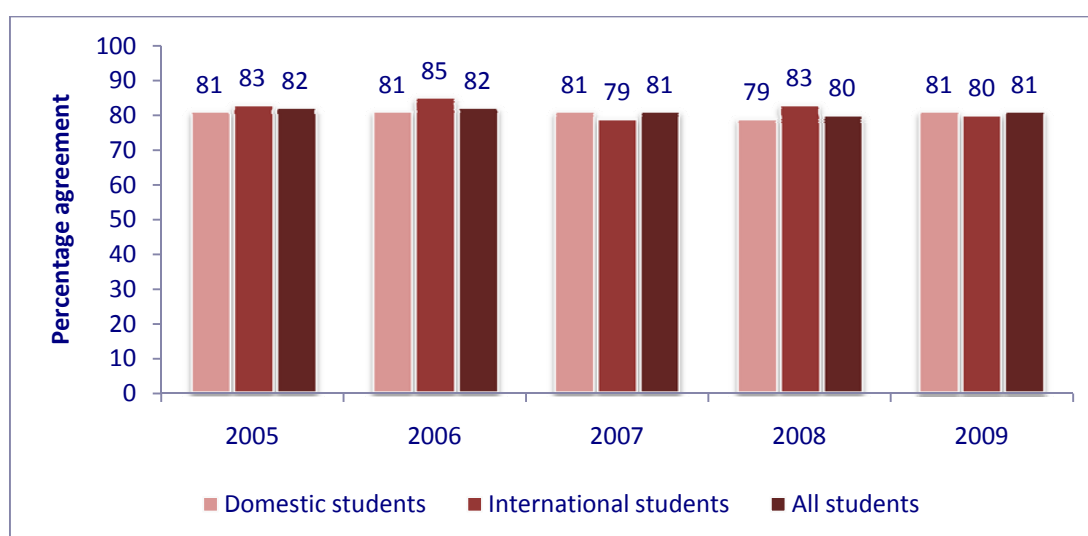
4.2 BACKGROUND INFORMATION

The *Generic Skills* scale reflects the extent to which students perceive their studies to have fostered the development of the generic skills recognised by the university as being a valuable outcome of university education, in addition to discipline specific skills and knowledge. Skills include problem solving; oral and written communication; development of ideas and their written presentation; collaboration with other researchers; analytical skills; planning; confidence in tackling unfamiliar problems; and ability to learn independently

4.3 COMPARATIVE RESULTS: QUANTITATIVE DATA 2005–2009

The following graph shows the proportion of students who either strongly agreed or agreed with Generic Skills Scale survey items in the SREQ between 2005 and 2009.

Figure 6: SREQ Generic Skills Scale: Percentage agreement results: 2005 - 2009



4.4 COMPARATIVE RESULTS: FOCUS OF WRITTEN OBSERVATIONS 2005–2009

The following table shows the percentage of comments, received from respondents to the survey, which can be classified as either areas of best practice or areas for improvement, providing an indication of trends in the focus of students' comments relating to the expansion of Graduate Attributes between 2005 and 2009.

		2005	2006	2007	2008	2009
<i>Areas of best practice</i>	Domestic	40%	44%	46%	44%	56%
	International	33%	69%	85%	56%	56%
	All	39%	52%	57%	48%	56%
<i>Areas needing improvement</i>	Domestic	7%	24%	16%	13%	9%
	International	20%	29%	21%	31%	13%
	All	8%	25%	17%	18%	10%

4.4 KEY ISSUES FOR RESEARCH HIGHER DEGREE STUDENTS (SREQ 2009)

4.4.1 Areas of best practice

	Domestic (n=34)	International (n=16)	All (n=50)
Graduate Attributes	56%	56%	56%
- Research and inquiry	26%	38%	30%
- Personal and intellectual autonomy	9%	6%	8%
- Information literacy	12%	6%	10%
- Communication skills	6%	6%	6%

Sample comments

- *I found gained an incredible amount of knowledge on statistics, computer programming and modelling*
- *Learning the way to develop original ideas*
- *I've learnt so much about being organised, time management and working with others*
- *Developing, building and dealing with a research project is a good learning experience for me. Hopefully, after completion of this training, I will be able to individually handle or lead such research projects in my home country*

4.4.2 Areas needing improvement

	Domestic (n=32)	International (n=16)	All (n=48)
Graduate Attributes	6%	6%	6%

Sample comments

- *Academic writing, discussion and presentation because they are the face of your work*
- *Writing*
- *My time management*

5 OVERALL SATISFACTION

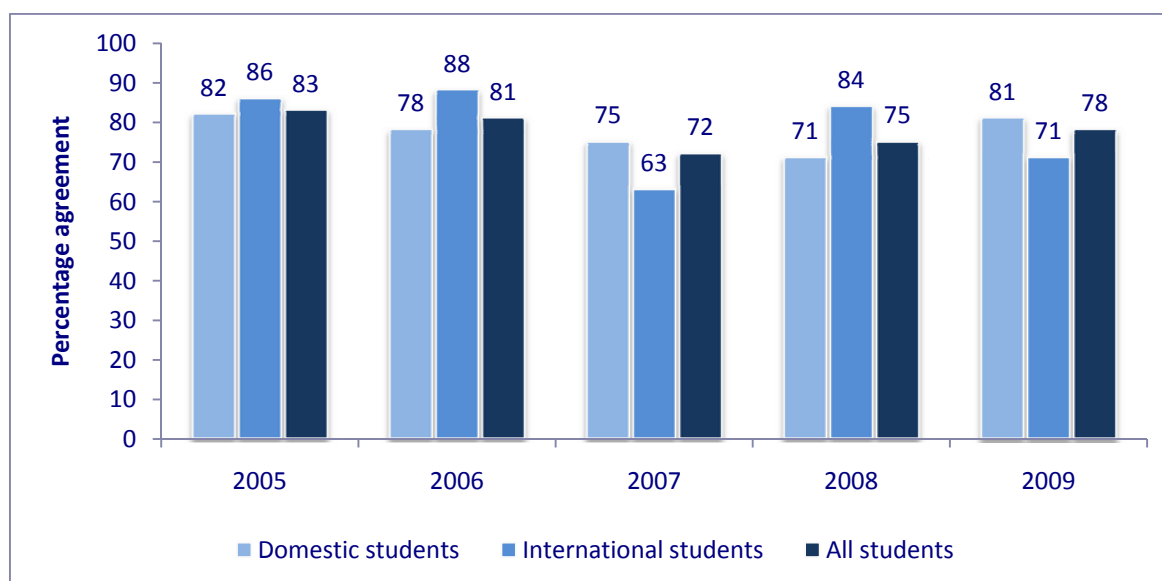
5.1 BACKGROUND INFORMATION

This single item asks students about their overall level of satisfaction with their research higher degree experience. In the analysis of the qualitative data, additional aspects, which are not covered in other areas of the survey, but which contribute to the overall satisfaction of the research higher degree student experience area included e.g. satisfaction with research, quality of degree (pressure to complete, flexibility of program), and reputation of the university/ faculty.

5.3 COMPARATIVE RESULTS: QUANTITATIVE DATA 2005–2009

The following graph shows the proportion of students who either strongly agreed or agreed with the Overall Satisfaction item in the SREQ between 2005 and 2009.

Figure 7: SREQ Overall Satisfaction Item: Percentage agreement results: 2005 - 2009



5.4 COMPARATIVE RESULTS: FOCUS OF WRITTEN OBSERVATIONS 2005–2009

The following table shows the percentage of comments, received from respondents to the survey, which can be classified as either areas of best practice or areas for improvement, providing an indication of trends in the focus of students' comments relating to overall satisfaction with the degree experience between 2005 and 2009.

		2005	2006	2007	2008	2009
<i>Areas of best practice</i>	Domestic	20%	28%	17%	26%	56%
	International	17%	31%	10%	11%	31%
	All	20%	29%	15%	21%	48%
<i>Areas needing improvement</i>	Domestic	9%	18%	24%	35%	9%
	International	20%	14%	11%	13%	0%
	All	10%	17%	20%	29%	6%

5.4 KEY ISSUES FOR RESEARCH HIGHER DEGREE STUDENTS (SREQ 2009)

5.4.1 Areas of best practice

	Domestic (n=34)	International (n=16)	All (n=50)
Overall satisfaction	56%	31%	48%
- Satisfaction with research	24%	25%	24%
- Flexibility of program	21%	0%	14%
- Quality of degree (incl. coursework component)	12%	0%	8%

Sample comments: domestic students

- *The freedom to pursue my own thoughts on my research topic. Time constraints of not too demanding. It's challenging and my research presents new findings consistently*
- *Fieldwork because it is better than being stuck to a desk or a lab bench. It is also the hand-on part of the degree, the one part that gives results and the impression to do something and progress toward a goal*
- *The subject is very relevant and provides some good challenges. Currently am very comfortable with what we are trying to achieve and enjoy this whole line of enquiry*
- *I think this is really the best university I have ever studied (I have studied 3 different universities in Australia and 2 in Europe). If I have a problem, I can be sure that there is at least one person on campus who will be able to help me, and usually I even know who that person/ faculty/ centre/ organisation is within the university. This is because the Orientation was excellent*

5.4.2 Areas needing improvement

	Domestic (n=32)	International (n=16)	All (n=48)
Overall satisfaction	9%	0%	6%

Sample comments

- *In the beginning my research was unfocused this meant that it took a long time to get the ball rolling (too long).*
- *I am highly concerned that the University of Sydney pays too much attention to making the campus look good and too little (immensely too little) on the equipment and services to produce research of the highest level. If this is not addressed in the very near future, the quality of science created by USyd will be surpassed by that of other universities and will leave the scientific community questioning the merit of USyd science. For too long, agricultural science based projects have been forced to spend their meagre budgets on outsourcing scientific analysis at a cost far greater than an integral service would request*
- *Selection of topic and research area is not given enough attention*

ATTACHMENT ONE: NOTES ON ANALYSIS AND COUNTING OF COMMENTS

1 QUANTITATIVE DATA ANALYSIS

Minimum sample size for reporting

The minimum recommended sample size for SREQ reporting is 20 valid responses. This is the same convention applied to reporting the CEQ and SCEQ. In degrees where less than 20 valid responses have been received a report is still provided however a warning message notes that the results should be interpreted with caution³

Number of respondents to the SREQ 2005 – 2009

	2005	2006	2007	2008	2009
	n=	n=	n=	n=	n=
Domestic students	49	47	50	52	43
International students	21	19	20	26	18
Total	70	66	70	78	61

2 QUALITATIVE DATA ANALYSIS

The analysis of the qualitative data is based on responses to the open questions received from respondents to the SREQ.

Number of respondents who answered the open questions SREQ 2005 - 2008

	Date of survey	2005	2006	2007	2008	2009
		n=	n=	n=	n=	n=
Areas of best practice	Domestic students	45	36	48	43	34
	International students	6	16	20	18	16
	Total	51	52	68	61	50
Areas of improvement	Domestic students	43	34	45	40	32
	International students	5	14	19	16	16
	Total	48	48	64	56	48

n=the number of comments received in answer to the relevant 'open response' question

3 RELIABILITY OF QUANTITATIVE AND QUALITATIVE DATA

The following information on the reliability of statistical data in the above tables should be taken into consideration when reading this report:

Quantitative and qualitative data

Where the number of respondents is between 5 and 20 results should be viewed with caution. The minimum sample size recommended for statistical analysis is 20

4 ILLUSTRATIVE SAMPLE COMMENTS

Comments are recorded as they appear in the original documents. However, minor spelling, grammatical and transcription errors have been corrected. [sic] indicates that the word appears exactly as provided by the student, and that it is not possible to ascertain an exact interpretation of the original meaning. To preserve student confidentiality, sample comments are only provided if there are six or more comments relating to that aspect in the responses. Comments that may possibly identify the student are not included in the sample comments. Supervisor(s) names, where included by the respondent, have been replaced by XXX, YYY or ZZZ.

³ Retrieved from ITL SREQ website Using the report page at <http://www.itl.usyd.edu.au/sreq/reportpage.htm>

5 ANALYSIS OF COMMENTS

The components of categories and sub-categories used in the analysis of qualitative data are based on:

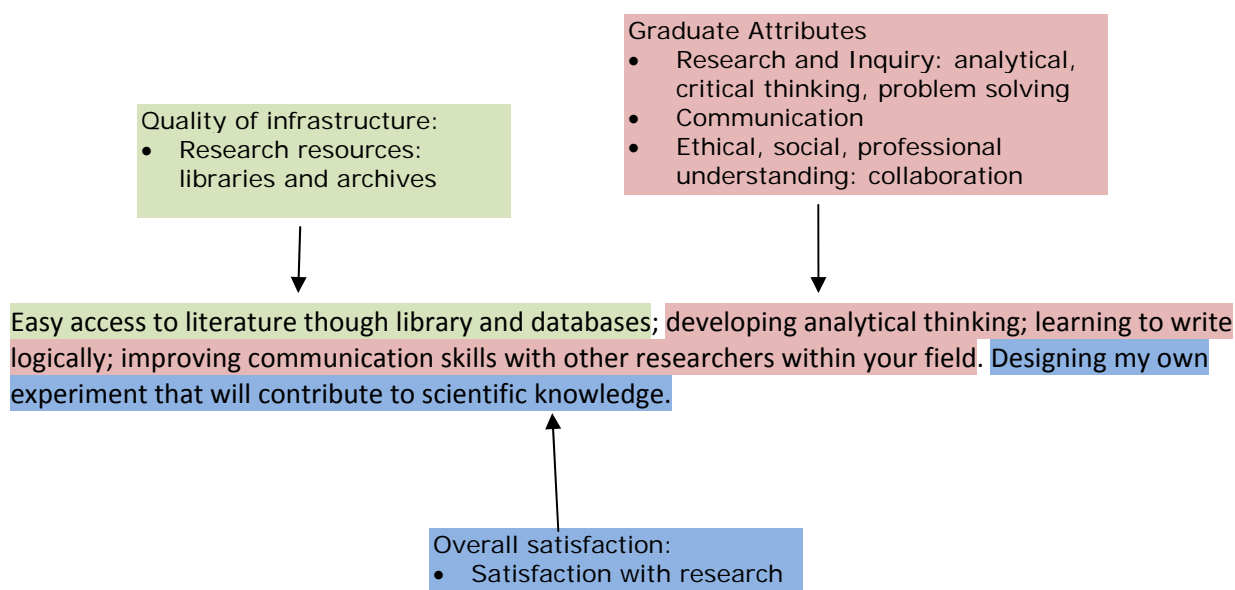
- Characteristics that define the area of the student experience
- SREQ survey items
- recurring themes in students' comments and have been developed over many years of analysing qualitative data from students' surveys.

Together, they represent the range of features of each aspect which are considered to be essential to student satisfaction with their research training experience

6 COUNTING OF COMMENTS

Each comment is analysed according to the *Taxonomy for analysing qualitative data from the SREQ*⁴, which is based on the Factors used in the SREQ. Based on the premise that a comment is what is written by an individual respondent in response to one of the open response questions, and a tally in the statistics being a specific phrase or sentence referring to one aspect of the student experience, the total number of times an aspect is mentioned in any one set of comments is calculated as a percentage of comments received in the year of the survey. As a general rule, only those aspects which receive over 5% of comments from the whole cohort (i.e. domestic and international combined) are considered significant enough to be included as specific issues in the report.

For example, the following comment is counted as ONE COMMENT RECEIVED; but as it is mentioned in Quality of infrastructure (Research resources); Graduate Attributes (Research and inquiry, Communication, and Ethical, social, professional understanding); and Overall Satisfaction (Satisfaction with research) the highlighted phrases within the comment are counted ONCE in each of the relevant categories i.e. 5 aspects in one comment.



⁴ Available from Quality Assurance Officer (Learning and Teaching)

ATTACHMENT TWO: SREQ SCALES: COVERAGE OF QUANTITATIVE AND QUALITATIVE DATA

The University of Sydney Student Research Experience Questionnaire (SREQ) is based upon the items included in the nationally administered Postgraduate Research Experience Questionnaire (PREQ). These items have been shown to cluster together to form factor scales: Supervision, Climate, Infrastructure, and Generic Skills. These items, together with recurring themes in students' comments are used as the basis for categories, sub-categories and components for the analysis of qualitative data. This attachment lists the relevant survey items and sub-categories and components used in the analysis of qualitative and quantitative data from the SREQ.

1 SUPERVISION SCALE/ QUALITY OF SUPERVISION

1.1 SREQ Survey items

- 1 Supervision is available when I need it
- 5 My supervisor(s) make(s) a real effort to understand difficulties I face
- 13 My supervisor(s) provide(s) me with additional information relevant to my topic
- 18 I am given good guidance in topic selection and refinement
- 22 My supervisor(s) provide(s) helpful feedback on my progress
- 26 I have received good guidance in my literature search
- 36 Overall, I am satisfied with the quality of my supervision

1.2 Qualitative data analysis

There are 4 sub-categories within *Quality of Supervision*, against which students' comments are analysed. Each of these sub-categories may be further broken down into relevant aspects (or components) of the research student experience of Supervision. The components of these sub-categories are based on the SREQ survey items together with recurring themes in students' comments:

- Supervisor(s) (*supervisor/ associate supervisor; usefulness of sessions with; availability and frequency of meetings with; feedback on work; understanding and empathy*)
- Supervision processes within faculty (*general comments on supervision; evaluation of supervisors by faculty; training*)
- Management of Candidature (*guidance on thesis, literature review; topic etc; workload; progress reports*)
- IP and plagiarism

2 INFRASTRUCTURE SCALE/ QUALITY OF INFRASTRUCTURE

2.1 SREQ Survey items

- 2 I have access to a suitable working space
- 6 I have good access to the technical support I need
- 10 I have access to a common room or a similar type of meeting place
- 12 I am able to organise good access to necessary equipment
- 19 I have good access to computing facilities and services
- 28 There is appropriate financial support for research activities
- 35 Overall I am satisfied with the quality of the services and facilities

2.2 Qualitative data analysis

There are 7 sub-categories within *Quality of Infrastructure*, against which students' comments are analysed. Each of these sub-categories may be further broken down into relevant aspects (or components) of the research students' perceptions of the quality of infrastructure. The components of these sub-categories are based on the SREQ survey items together with recurring themes in students' comments.

- Administration (*enrolment and admission; communication between faculty and students; general comments on administration (faculty and university); postgraduate coordinator*)
- Facilities (*common room; workspace, buildings, etc; computer hardware and software; equipment; transport and parking*)
- Finance and funding (*funding for resources, equipment etc; scholarships and grants; travel grants*)
- Research resources (*provided by faculty; provided by internal and external libraries and archive centres*)
- Student support services (*Ethics Office; Research Office; International Office etc*)
- Support (*IT; technical; laboratory*)
- Resource issues that affect students' overall experience (*under-resourced infrastructure at a faculty level*)

3 CLIMATE SCALE/ RESEARCH CLIMATE

3.1 SREQ Survey items

- 3 The department / school provides opportunities for social contact with other postgraduate students
8 I feel integrated into the department's / school's community
15 The department / school provides opportunities for me to become involved in the broader research culture
16 I feel that other postgraduate students in my department / school are supportive
20 I tend to feel isolated within this department / school
23 Interaction with other postgraduate students is actively encouraged in this department / school
24 A good seminar program for postgraduate students is provided
25 The research ambience in the department / school or faculty stimulates my work
29 I feel that this department / school provides a supportive working environment
31 I feel respected as a fellow researcher within my department / school

3.2 Qualitative data analysis

There are 7 sub-categories within *Research Climate*, against which students comments are analysed. Each of these sub-categories may be further broken down into relevant aspects (or components) of the student experience of the prevailing research climate within the faculty. The components of these sub-categories are based on the SREQ survey items together with recurring themes in students' comments.

- Social inclusion (*cultural diversity; equity, discrimination, and harassment*)
- Research community (*internal and external to faculty (general comments; faculty seminars, workshops, and discussion groups; networking/ collaborating; participation in conferences; opportunities for and encouragement to publish)*)
- Work environment (*challenging and stimulating; induction/ orientation programme; integration into faculty/ department/ school; isolation (emotional); respect as fellow researcher; supportive environment; support for part-time, distance, students*)
- Interaction with other research higher degree students (*academic; social; support of peers*)
- Location and physical environment
- Interaction with industry partners e.g. ARC projects
- Career preparation (*academic (e.g. availability of tutoring, lecturing); general comments*)

4 GENERIC SKILLS SCALE/ GRADUATE ATTRIBUTES

4.1 SREQ Survey items

- 4 My research has further developed my problem-solving skills
7 Doing my research has helped to develop my written communication skills
9 I have learned to develop my ideas and present them in my written work
11 As a result of my research, I have developed the ability to work collaboratively with other researchers
14 My research has sharpened my analytical skills
17 Doing my research has helped to develop my oral communication skills
21 Doing my research has developed my ability to plan my own work
27 As a result of my research I feel confident about tackling unfamiliar problems
30 As a result of my research I have developed the ability to learn independently

4.2 Qualitative data analysis

There are 5 sub-categories within Graduate Attributes, against which students comments are analysed. These match the five main University Generic Graduate Attributes. The components of these sub-categories are allied to the skills and abilities for each attribute provided in the University policy framework for Graduate Attributes.

- Communication (*oral communication; written communication*)
- Ethical, social, professional understanding (*collaboration/ team work; ethical, social, cultural understanding; professional skills including academic*)
- Information literacy (*retrieval and use of information; computing skills e.g. using endnote, searching databases etc; referencing*)
- Personal and intellectual autonomy (*independent learning; planning own work; intellectually curious; new ways of thinking, etc*)
- Research and inquiry (*analytical, critical, problem solving; expanding knowledge base; creativity and imagination; statistical skills; research skills*)

5 OVERALL SATISFACTION

5.1 SREQ Survey item

43 Overall, I am satisfied with the quality of my research higher degree experience.

5.2 Qualitative data analysis

There are 8 sub-categories within Overall Satisfaction. They represent the range of aspects of the postgraduate research student experience which are considered to have a major influence on the quality of the research degree experience, and which are not covered elsewhere.

- General comments
- Quality of degree/ program (*length; inclusion of coursework, etc*)
- Pressure to complete (*i.e. within time frame set by APA conditions etc*)
- Satisfaction with research (*topic, contribution to field*)
- Flexibility of the program (*freedom to follow own research; choose own topics; compared to undergraduate degree; flexible working hours*)
- Practical aspects of the degree (*field work, interviews etc*)
- Reputation/ prestige of university/ faculty/ department/ academic staff
- Quality of students