

Sydney Medical School

Student Research Experience Questionnaire Report : 2005 - 2009

October 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

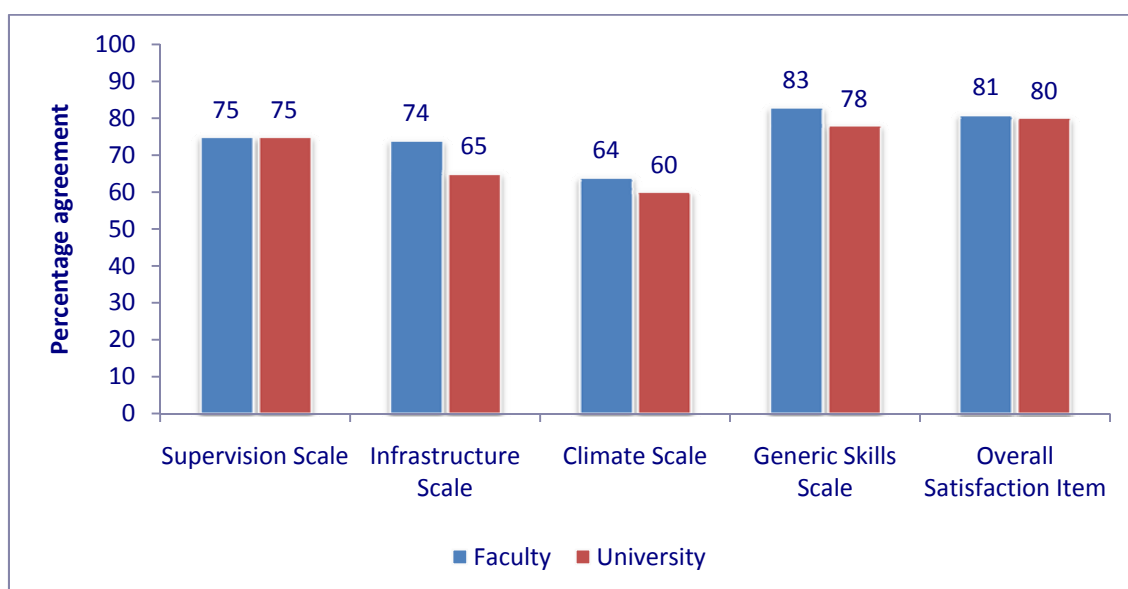
The following results are an indication of those areas of the student experience that were of significance to research higher degree students during 2009. The Faculty scores (percentage agreement results) reflect the experiences of respondents in relation to specific items in the survey; the qualitative 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.

532 research higher degree students (474 domestic and 58 international) responded to the 2009 SREQ.

Figure 1: Comparison of University and Sydney Medical School:
Percentage agreement results: SREQ 2009



As indicated in the above chart, Faculty scores are higher than the University average for Infrastructure, Climate, Generic Skills and Overall Satisfaction, and identical for Supervision. At a Faculty level the 2009 SREQ scores are marginally higher than those for 2008 in Supervision, Infrastructure, and Climate, identical in Generic Skills, and marginally lower in Overall Satisfaction¹.

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.

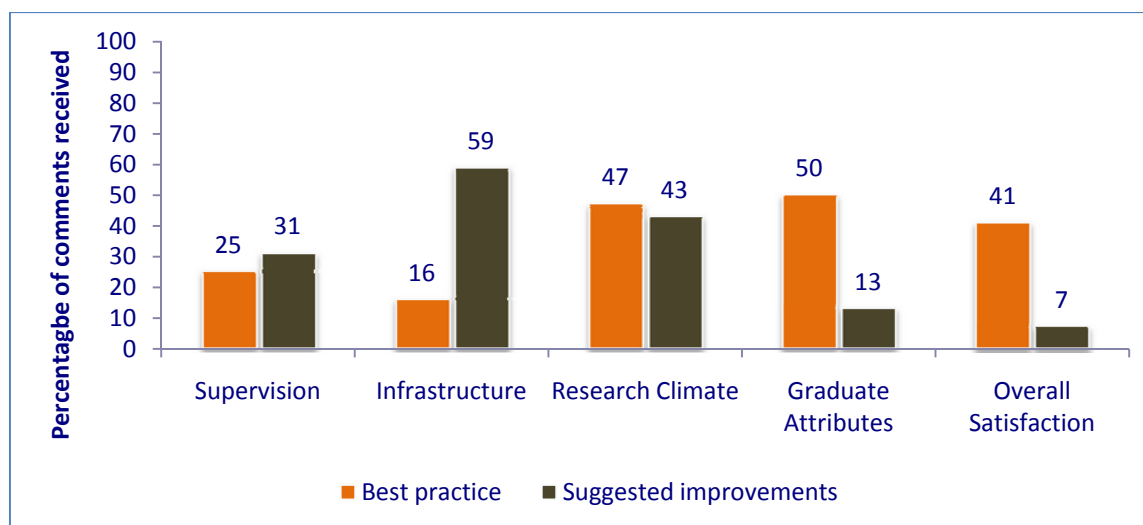
2 Focus of written observations SREQ 2009

400 respondents to the 2009 SREQ (356 domestic students; 44 international students) answered the open question requesting comments on areas of best practice in their research higher degree experience; 322 respondents (285 domestic students; 37 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 Sydney Medical School, 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: Sydney Medical School: 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 25% of respondents to the SREQ in 2009 included: supervisor(s) –availability and frequency of meetings; support and expertise of individual supervisors (17% of comments received)
- Aspects that were considered to be in need of improvement by 31% of respondents included: supervisor(s) (12%) (availability and frequency of meetings; feedback on work, and individual supervisors; the supervision process, including training and evaluation of supervisors (10%); and management of candidature (9%)

2.2.2 Quality of infrastructure

- Aspects of the Quality of Infrastructure that were considered to be of best practice by 16% of respondents included: facilities (computers, equipment, workspace) (7% of comments received).
- Aspects that were considered to be in need of improvement by 59% of respondents included: facilities (computers, equipment, laboratories, and workspace (13%); and funding, scholarships, etc (30%)

2.2.3 Research Climate

- Aspects of the Research Climate that were considered to be of best practice by 47% of respondents to the SREQ in 2009 included: being part of a research community, including conferences, networking and seminars (21% of comments received); and experiencing a supportive work environment, that was challenging and stimulating (17%); interaction with other research higher degree students (6%)
- Aspects that were considered to be in need of improvement by 43% of respondents included: the prevailing work environment – integration into faculty/ department, respect as a fellow researcher (16%); aspects of research community (12%); interaction with other research higher degree students (8%); location and physical environment (6%)

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

2.2.4 Graduate Attributes

- 50% 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 and professional understanding (3%); Information literacy (3%); Personal and intellectual autonomy (9%); and Research and inquiry (30%).
- Aspects that were considered to be in need of improvement by 13% of respondents included: Communication skills (4%); Information literacy (1%); Personal and intellectual autonomy (1%); and Research and inquiry (7%).

2.2.5 Overall Satisfaction

- Aspects of Overall Satisfaction that were considered to be of best practice by 41% of respondents to the SREQ in 2009 included: flexibility of program (17% of comments received); and Satisfaction with research (19%).
- 7% 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 Sydney Medical School 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

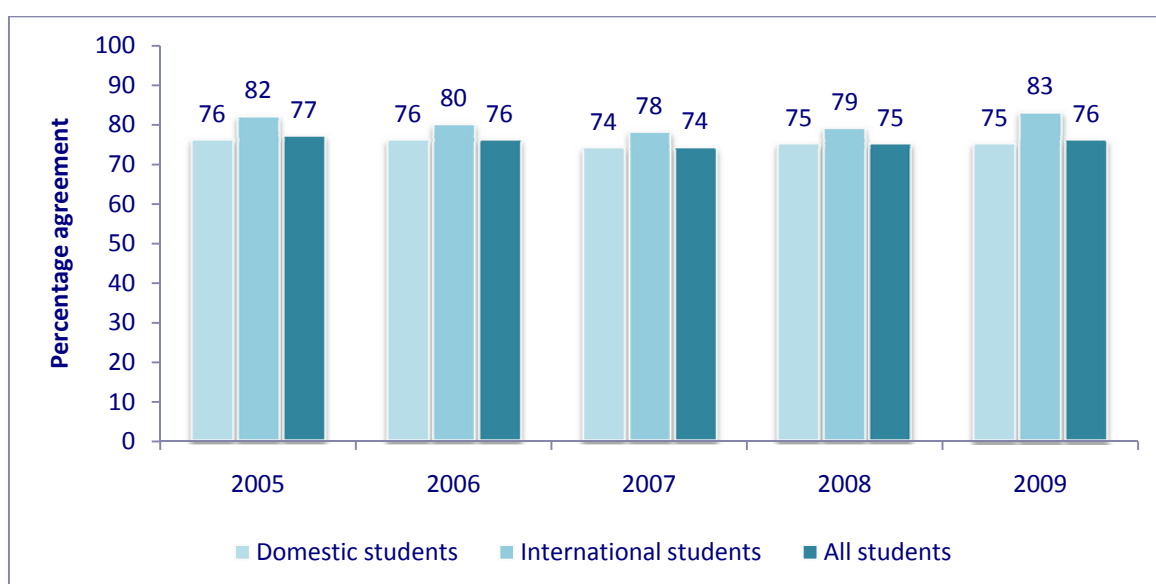
1.1 BACKGROUND INFORMATION

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	28%	25%	22%	22%	22%
	International	17%	18%	28%	27%	48%
	All	27%	24%	23%	23%	25%
<i>Areas needing improvement</i>	Domestic	25%	20%	23%	23%	34%
	International	13%	23%	15%	6%	8%
	All	25%	20%	23%	22%	31%

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

1.4.1 Areas of best practice

	Domestic (n=356)	International (n=44)	All (n=400)
Quality of Supervision	22%	48%	25%
- Supervisor(s)	17%	45%	20%

Sample comments

- *I consider myself extremely lucky to have XXX as a supervisor. He is extremely supportive, and spends a lot of time with me. He helps with academic issues as well as the big picture of career planning. He is open, honest, kind and fair. He is readily available and extremely approachable. I feel his door is always open to me and I can speak freely about challenges I face*
- *My supervisors are fantastic. I really appreciate their support. They have allowed me to develop my own topic and to move in directions that I wish with my work. They always have plenty of time for me and nothing is too hard to ask*
- *So far the best aspect of my research higher degree experience is friendly behaviour and strong cooperation from my supervisor. My supervisor is extremely cooperative and he gives me time regrading my research work whenever I need*
- *Supervision aspects, because my supervisors are really supportive and understand me*

1.4.2 Areas needing improvement

	Domestic (n=285)	International (n=37)	All (n=322)
Quality of Supervision	34%	8%	31%
- Supervisor(s)	13%	3%	12%
- Supervision process	10%	5%	10%
- Management of candidature	11%	0%	9%

Sample comments

- *Overall project could have been planned better by the supervisor and things like intellectual property sorted out before the commencement of the project*
- *More available information at the start regarding thesis structure required, approximate word limit, and other things to think about throughout my degree, instead of being thrown into the deep end without any information about what is required for candidature, and what students often do (e.g. thesis by publication)*
- *Supervisors need to be taught how to supervise*
- *Supervision. Although these are regular meetings, they are very rigid in structure/formal in structure (1-4 senior researcher: 1 student) notes are taken. Meetings tend to be very negative and non productive. I walk away feeling very unmotivated and often discouraged*

2 QUALITY OF INFRASTRUCTURE

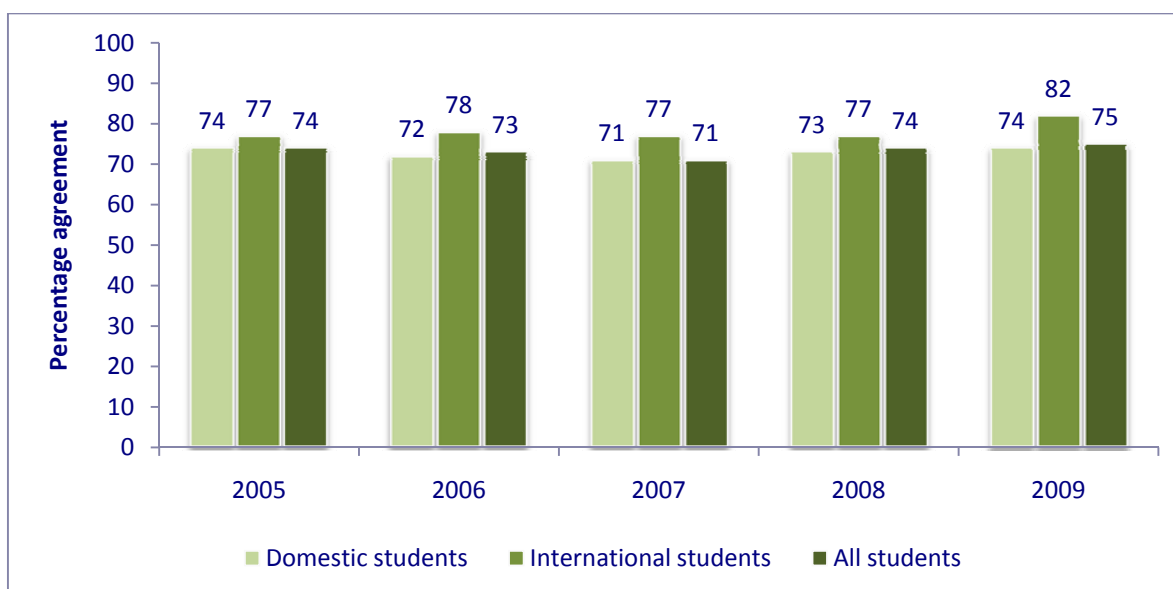
2.1 BACKGROUND INFORMATION

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	15%	13%	14%	12%	14%
	International	33%	26%	13%	11%	27%
	All	16%	15%	14%	12%	16%
<i>Areas needing improvement</i>	Domestic	58%	52%	53%	54%	58%
	International	100%	51%	42%	51%	68%
	All	59%	52%	52%	53%	59%

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

2.4.1 Areas of best practice

	Domestic (n=356)	International (n=44)	All (n=400)
Quality of Infrastructure	14%	27%	16%
- Facilities (computers, equipment, workspace etc)	8%	5%	7%

Sample comments

- *Excellent facilities and financial support - means I can focus on my research*
- *The facility, also the equipment provided and the support, both technically and intellectually*
- *Working facilities such as computer and Internet access, photo copy facilities*
- *The lab is well-funded, and has access to very good equipment*

2.4.2 Areas needing improvement

	Domestic (n=285)	International (n=37)	All (n=322)
Quality of Infrastructure	58%	68%	59%
- Finance and funding (incl. scholarships)	29%	32%	30%
- Facilities (computers, equipment, workspace etc)	13%	16%	13%
- Administration	6%	8%	6%

Sample comments

- *The university administration process is very antiquated and laborious particularly for students like myself that work full-time, study part-time and are not on site. For example, the system for the annual progress report should all be able to be conducted online rather than posting the report around when I am in one location, my supervisors in 2 different ones and the clinical coordinator in a 3rd*
- *Student room in the new Kolling Institute building, This would greatly improve the morale and cross-disciplinary interaction between students*
- *More financial support for research labs that lack funding from grants. This is because it is often very hard to do research with lack of funding and when it is difficult to get grants in the field of study*
- *The computer that I am using is too slow, and was used by previous student for the past 4 years*

3 RESEARCH CLIMATE

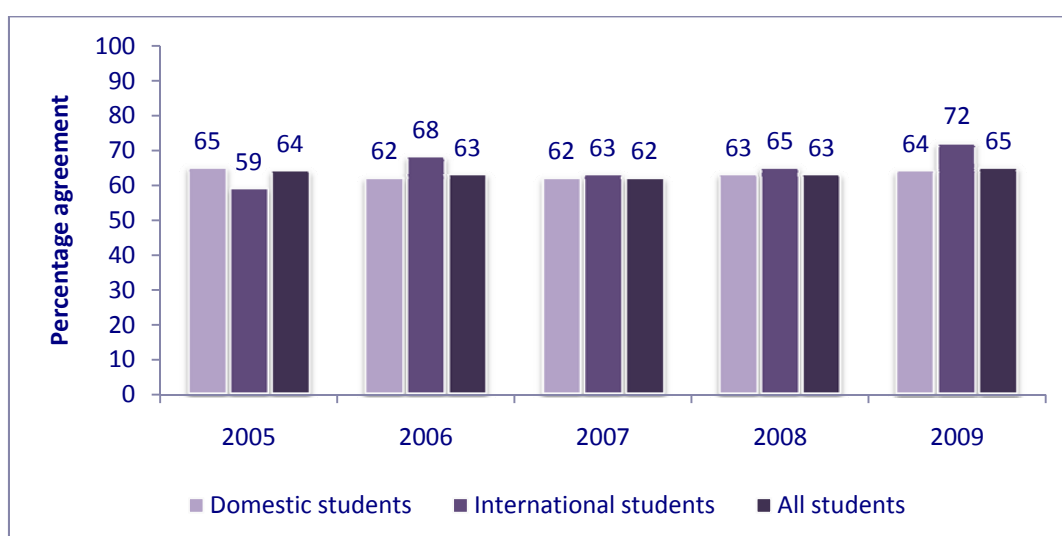
3.1 BACKGROUND INFORMATION

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	45%	38%	50%	47%	46%
	International	25%	36%	13%	30%	50%
	All	45%	38%	47%	46%	47%
<i>Areas needing improvement</i>	Domestic	42%	35%	29%	34%	47%
	International	13%	34%	23%	37%	16%
	All	41%	35%	29%	35%	43%

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

3.4.1 Areas of best practice

	Domestic (n=356)	International (n=44)	All (n=400)
Research Climate	46%	50%	47%
- Research community	20%	25%	21%
- Work environment	18%	11%	17%
- Interaction with other research higher degree students	5%	11%	6%

Sample comments

- *Opportunity to work closely with other research students within the Department - allows exchange of ideas and expertise gained from different projects*
- *Also being given the opportunity to go to conferences both local and overseas - this has played a great part in my PhD experience as I get to meet some of the key players in the field and to present my work which is scary but in this field everyone needs to learn how to do it*
- *Positive environment and good support keeps me going even in difficult situations and helps me believing in my research*
- *Meeting other research fellows also from overseas for more scientific discussion and experience sharing*

3.4.2 Areas needing improvement

	Domestic (n=285)	International (n=37)	All (n=322)
Research Climate	47%	16%	43%
- Work environment	18%	0%	16%
- Research community	12%	11%	12%
- Interaction with other research higher degree students	9%	3%	8%
- Location and physical environment	7%	3%	6%

Sample comments

- *A chance for postgraduate students from different departments to meet together and discuss our research, so that we can discuss ideas and share the postgrad journey together*
- *Being off campus means that I often don't feel like I'm part of the uni at all. More events organised by uni on site (I'm at Westmead) would be a good opportunity to meet other students as well*
- *More collaboration with researchers outside supervisory team - new to USyd therefore has taken a long time to find resources in other groups at the university and have needed to set those up myself*
- *Perhaps integration between students from different departments or even faculties to enhance research experience*

4 GRADUATE ATTRIBUTES

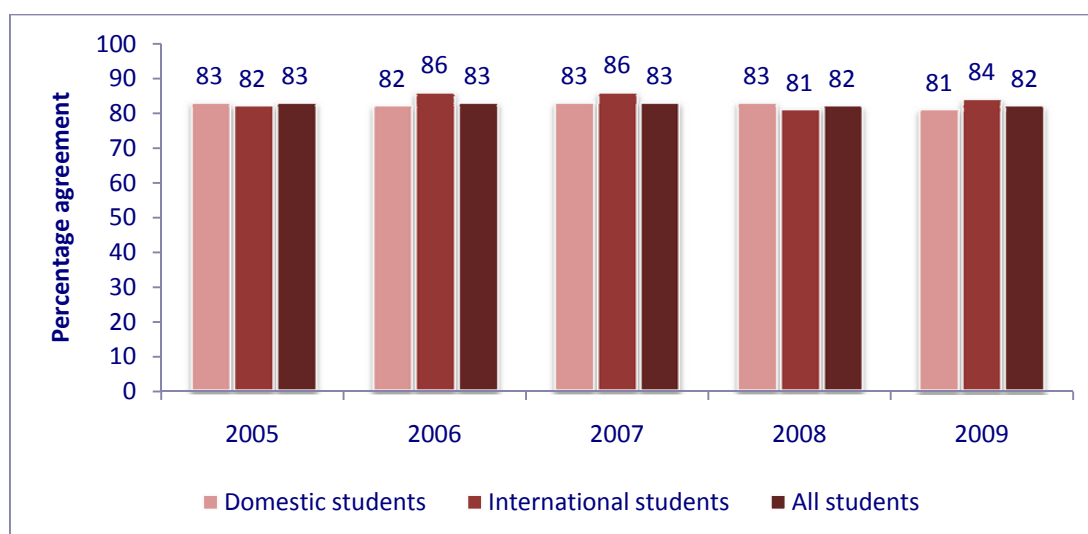
4.2 BACKGROUND INFORMATION

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	57%	56%	48%	53%	50%
	International	58%	36%	59%	68%	50%
	All	57%	53%	49%	54%	50%
<i>Areas needing improvement</i>	Domestic	8%	11%	8%	10%	12%
	International	0%	29%	38%	11%	24%
	All	8%	13%	11%	10%	13%

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

4.4.1 Areas of best practice

	Domestic (n=356)	International (n=44)	All (n=400)
Graduate Attributes	50%	50%	50%
- Research and inquiry	30%	23%	30%
- Personal and intellectual autonomy	8%	14%	9%
- Communication skills	6%	5%	6%

Sample comments

- *Acquire different skills such as writing, oral communication, preparing presentations - have become more confident - I learning different experimental techniques - these can be applied in different fields of research*
- *I have learned to critically evaluate other research and gained confidence in my ability to recognise the difference between studies that are making valid claims and those that may be flawed*
- *These meetings provided valuable research skills and broaden the understanding of research methodology*
- *My research degree experience improve my communication and writing skills, since English is not my main language and the more I do research, I am more confident with my work!*

4.4.2 Areas needing improvement

	Domestic (n=285)	International (n=37)	All (n=322)
Graduate Attributes	12%	24%	13%
- Research and inquiry	6%	14%	7%

Sample comments

- *oral communication skills. - review and editing of written manuscripts*
- *Affordable access to advanced training in word-processing, document management, referencing and troubleshooting difficult problems with bibliographic software*
- *My analytical and writing skills*
- *Understanding statistics but still have problems of how to apply or use it for result analysing*

5 OVERALL SATISFACTION

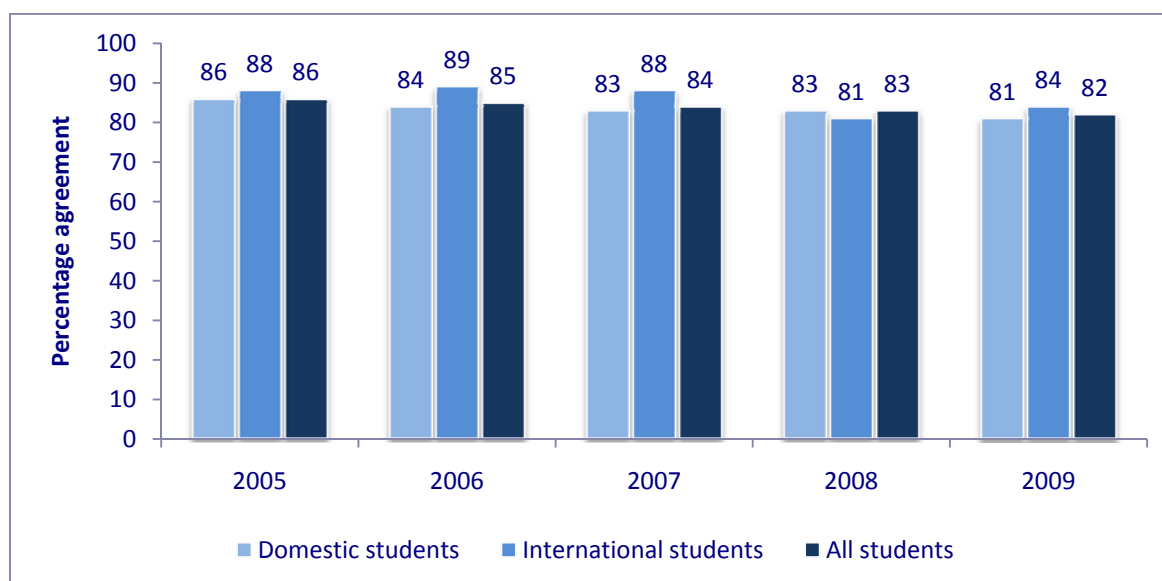
5.1 BACKGROUND INFORMATION

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	31%	41%	36%	36%	42%
	International	8%	31%	41%	25%	27%
	All	30%	40%	36%	35%	41%
<i>Areas needing improvement</i>	Domestic	3%	6%	4%	5%	7%
	International	0%	0%	0%	9%	11%
	All	3%	5%	4%	5%	7%

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

5.4.1 Areas of best practice

	Domestic (n=356)	International (n=44)	All (n=400)
Overall satisfaction	42%	27%	41%
- Satisfaction with research	19%	16%	19%
- Flexibility of program	17%	9%	17%

Sample comments

- *Being encouraged to interpret results and formulate future experiments - I feel that the more responsibility the student takes on in this regard, the greater satisfaction gained upon receiving positive results*
- *The best part is being able to run my own project, making decisions as to what is interesting to do and how to go about doing it. I can then discuss with my supervisors or peers and we come to a final decision from there. It's very different from my previous experience of either being told minutely what to do, or not having enough support at all*
- *The research higher degree allows me to be involved in an area of which I am very passionate about and hopefully to add to the current knowledge*
- *Novel area of research, working through problems, developing own ideas*

5.4.2 Areas needing improvement

	Domestic (n=285)	International (n=37)	All (n=322)
Overall satisfaction	7%	11%	7%

Sample comments

- *Perhaps an experienced senior basic scientist in my research group will be invaluable*
- *My research work took a lot of time in the lab working, so I feel I need to put more time into organising my ideas, analysing the data and writing up*
- *After 3 years of PhD there should be stronger focus on finishing the degree i.e., 3-6 months meeting with supervisors and representatives from Sydney university to ensure students finished within 3-4 years*
- *I think organised coursework for medicine would be useful*

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	402	397	422	527	474
International students	34	45	42	55	58
Total	436	442	464	582	532

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=
<i>Areas of best practice</i>	Domestic students	306	297	358	398	356
	International students	12	39	32	44	44
	Total	318	336	390	442	400
<i>Areas of improvement</i>	Domestic students	240	272	325	355	285
	International students	8	35	26	35	37
	Total	248	307	351	390	322

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:

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:

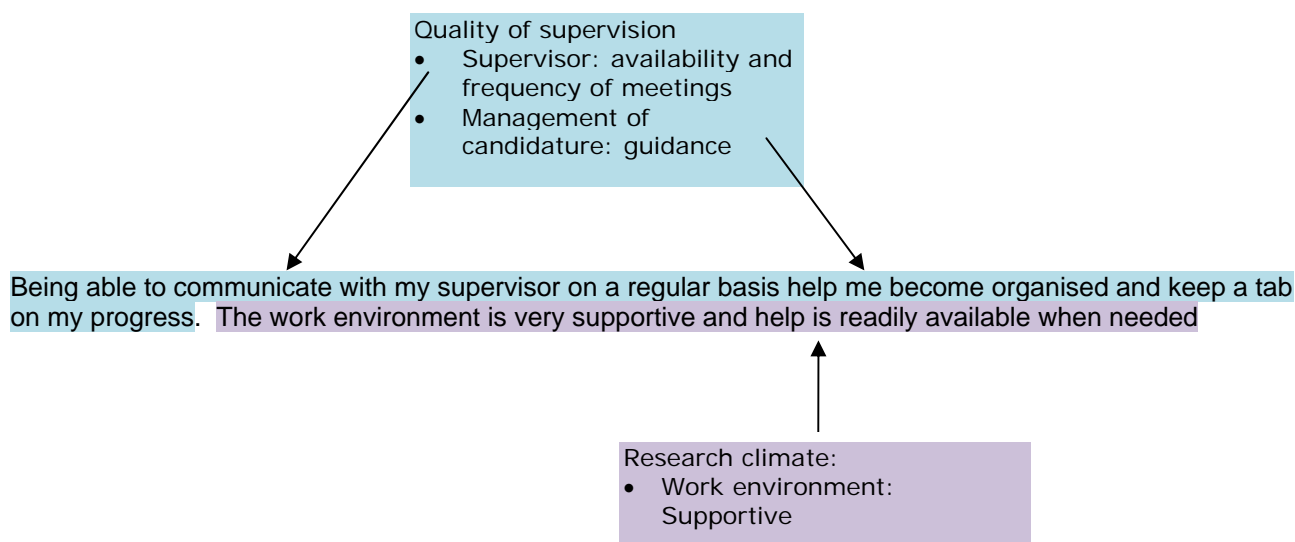
- Characteristics that define the area of the student experience
- SREQ survey items
- recurring themes in students' comments and have been developed over many years of analysing qualitative data from students' surveys.

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 Supervision (Supervisor; Management of candidature); and Research Climate (Work environment) the highlighted phrases within the comment are counted ONCE in each of the relevant categories i.e. 3 aspects in one comment.



⁴ See Attachment Two for outline of categories and sub-categories used in Taxonomy

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