

Faculty of Pharmacy

Student Research Experience Questionnaire Report

Trends and key issues: 2006 - 2010

April 2011

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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.

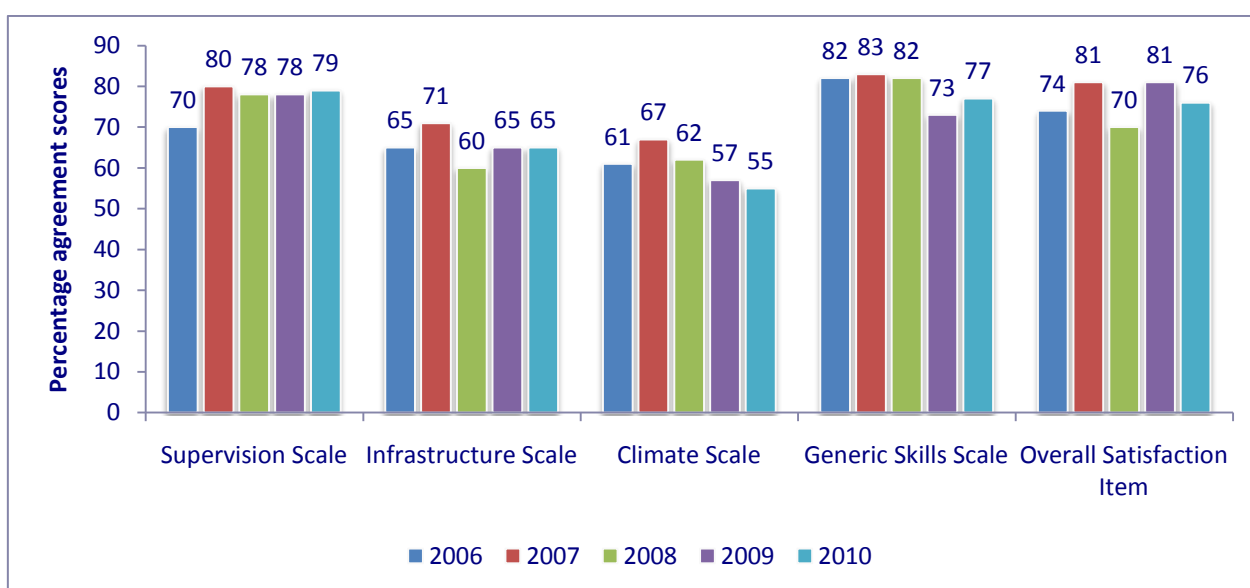
The analysis of qualitative data received between 2006 and 2010, and reported in this document, is based on written observations received from **all** respondents who answered the open questions in the SREQ.

COMPARATIVE DATA: 2006 – 2010¹

Quantitative data

The following chart provides a comparison of the results of the SREQ percentage agreement results (i.e. respondents who either agreed or strongly agreed with the survey items relating to each scale) for the Faculty of Pharmacy since 2006.

Figure 1: Faculty of Pharmacy: Percentage agreement results: SREQ 2006 - 2010



Qualitative Data

Comparative data: 2006 – 2010

The charts on the following page provide an indication of those areas of the research higher degree student experience that respondents considered to be either of best practice or in need of improvement in their responses to the open questions in the SREQ 2006 – 2010. An average of 80% of respondents provide written observations, indicating a high level of engagement with their research higher degree student experience..

¹ More detailed data, i.e. comparing the results from domestic and international students is available in the individual sections of the report. Statistical data regarding the number of students who responded to the SREQ, together with data on those who answered the open questions, can be found at Attachment One.

Figure 2: Faculty of Pharmacy: Areas of best practice: SREQ 2006 - 2010

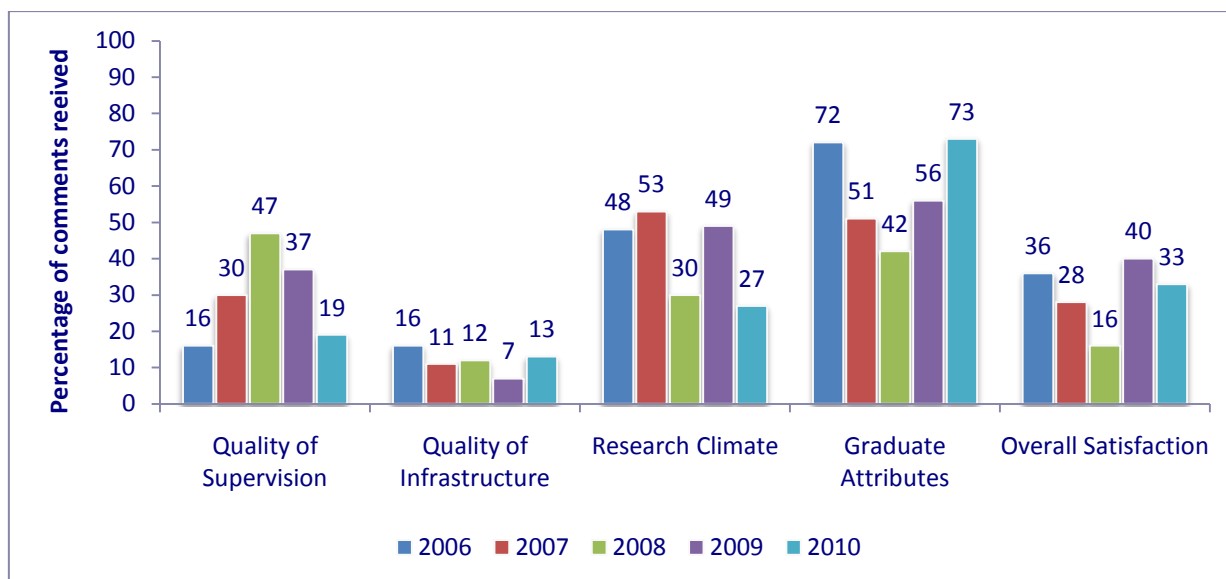
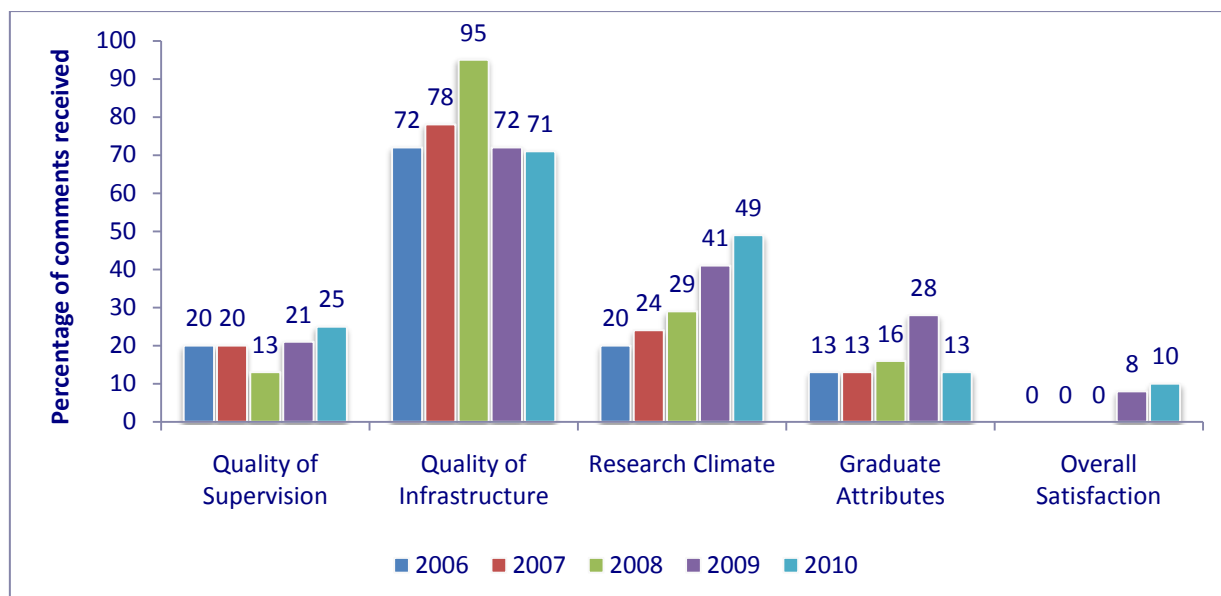


Figure 3: Faculty of Pharmacy: Areas needing improvement: SREQ 2006 - 2010

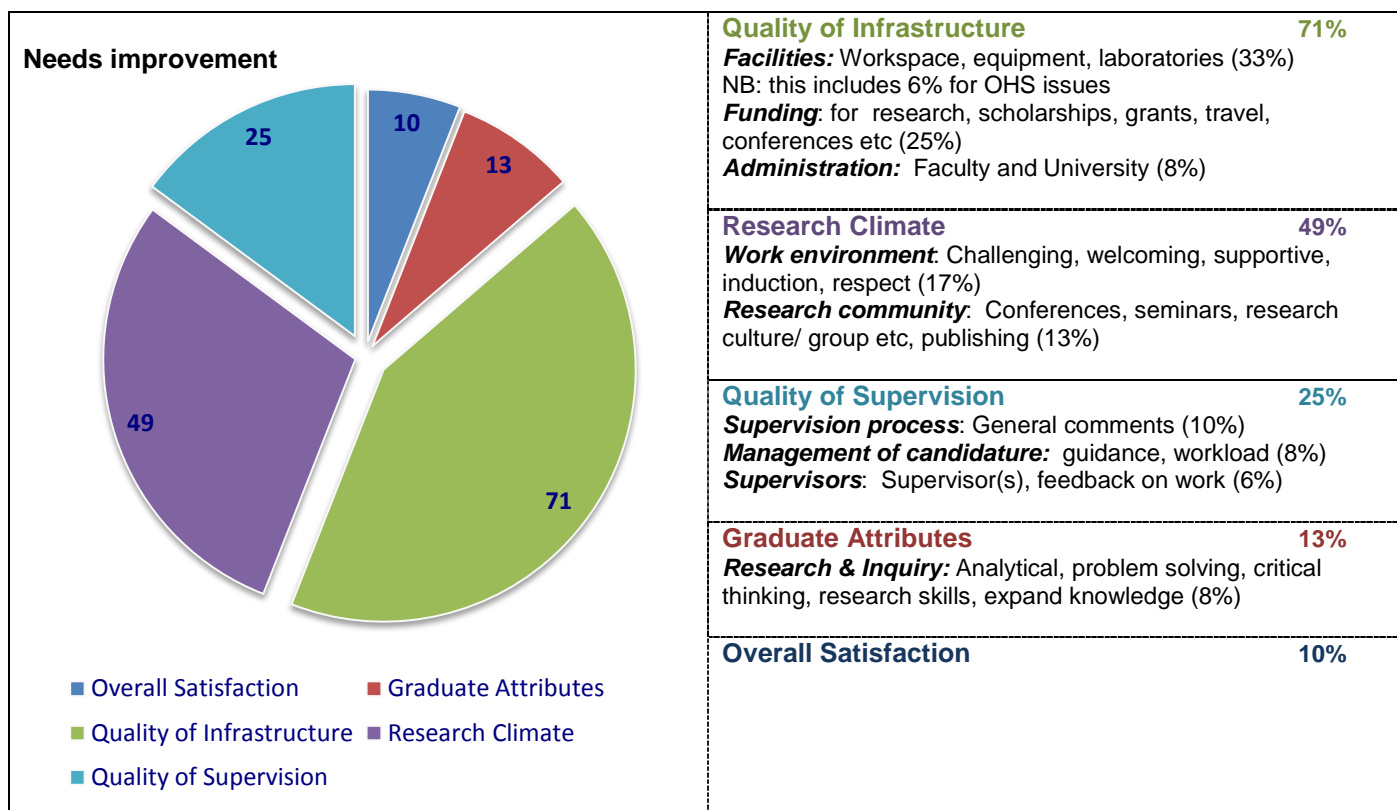
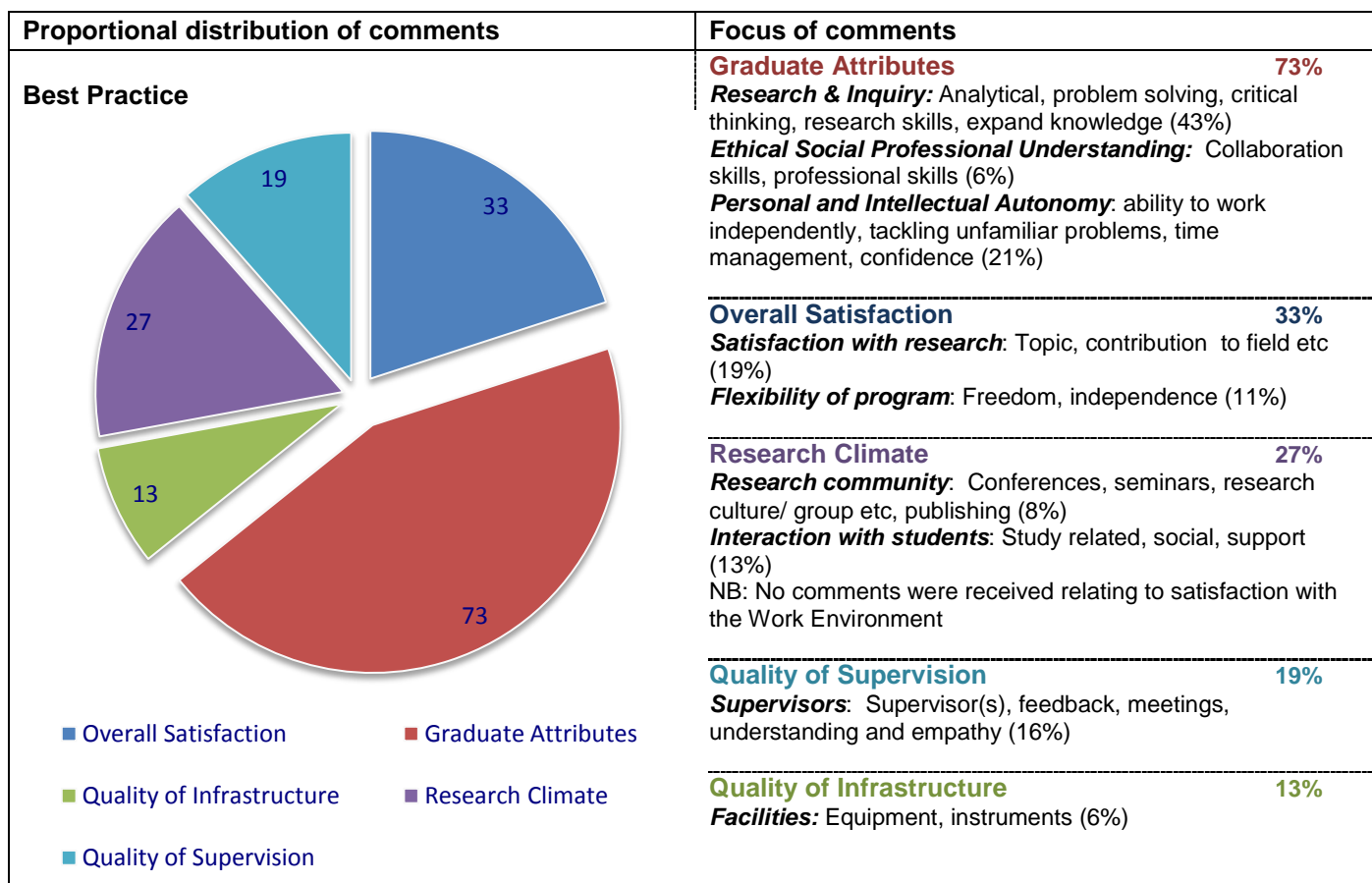


Key issues: 2010

The charts on the following page provide an overview of the issues that were of importance to research higher degree students in the Faculty in 2010.

Narrative and proportional chart data show the percentage of the total number of comments received from respondents for each of the main categories of the research higher degree student experience, together with an indication of those components that were mentioned most frequently. The statistical data indicates the distribution within each scale and category. Further detail is provided in Sections 1 – 6 of this report.

NB: the numbers in each of the pie slices add up to more than 100% because students often mention more than one aspect of their experience in their answers, each of which is counted once. (see Attachment Two for explanation on analysis and counting of comments)



FOR MORE INFORMATION

On the analysis and reporting of qualitative data

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SREQ Faculty reports are at:

http://sydney.edu.au/learning/evaluating/research_higher_degree_reports.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
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SREQ results and reports are at <http://www.itl.usyd.edu.au/sreq/>

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 Pharmacy between 2006 and 2010. The report also provides detailed information on the key issues highlighted in the analysis of the 2010 SREQ qualitative data.

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 2010 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.

POSTGRADUATE RESEARCH EXPERIENCE QUESTIONNAIRE (PREQ) 2006-2008

Faculty scores from the 2009 and 2010 Postgraduate Research Experience Questionnaire (PREQ); together with a list of comments received in answer to the open response questions in the 2010 survey, are provided as an attachment to this report. The broad area(s) by which each comment has been analysed are indicated alongside each comment.

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.

ATTACHMENTS

The following attachments are provided at the end of the report:

- 1 Statistical data: number of respondents to the SREQ by Faculty and by School
- 2 Analysis and counting of comments
- 3 SREQ Factors
- 4 PREQ 2010 comments

1 QUALITY OF SUPERVISION

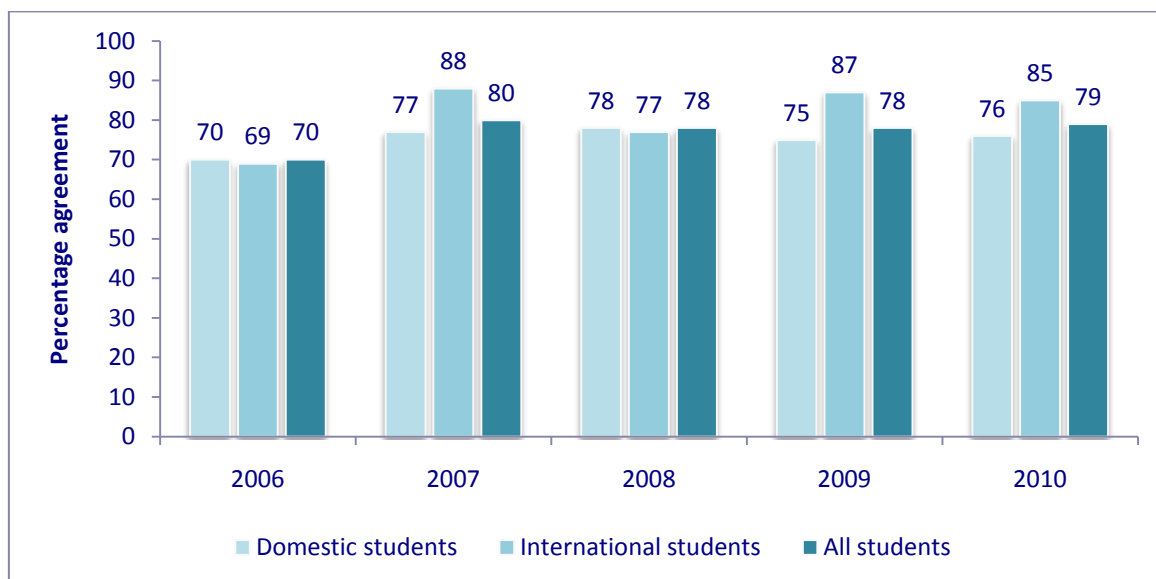
1.1 BACKGROUND INFORMATION

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: 2006 - 2010

The following graph shows the proportion of students who either agreed or strongly agreed with relevant Supervision Scale survey items in the SREQ between 2006 and 2010.

Figure 4: SREQ Supervision Scale: Percentage agreement results: 2006 - 2010



1.3 COMPARATIVE RESULTS: FOCUS OF WRITTEN OBSERVATIONS: 2006 – 2010

The following chart provides an indication of trends in the research higher degree student experience of the Quality of Supervision, as indicated in their responses to the open questions in the 2006 - 2010 SREQ. It demonstrates the relationship between areas of best practice, and areas in need of improvement. Results are reported as a percentage of the total number of comments received from all respondents who supplied written observations.

Figure 5: Quality of Supervision: Focus of written observations: 2006 - 2010



1.4 KEY ISSUES FOR RESEARCH HIGHER DEGREE STUDENTS (SREQ 2010)

1.4.1 Areas of best practice

	Domestic (n=46)	International (n=17)	All (n=63)
Quality of Supervision	20%	18%	19%
- Supervisor(s)	15%	18%	16%

Sample comments

- Supervision- has enabled my research experience to be possible, particularly towards the end with timely feedback
- Excellent supervisor support. Positive attitude of supervisor to ideas, and attitude of promotion of research events- conferences, workshops, courses etc. to enhance my skills
- I would say the supervision is really good, my supervisors are really wonderful, they've supported me well, and my research topic is really good, I've enjoyed the work I do
- My supervisor is supportive and helps by analysing the possible problems that I might encounter during my research

1.4.2 Areas needing improvement

	Domestic (n=46)	International (n=17)	All (n=63)
Quality of Supervision	33%	6%	25%
- Management of candidature	11%	0%	8%
- Supervisor(s)	9%	0%	6%
- Supervision process	11%	6%	10%

Sample comments

- Communication between supervisors and student; I required regular meetings with the supervisory team to get the big picture and feedback from those who involve in the project to prevent misunderstanding and miscommunication
- Supervision- my primary supervisor left during my candidature and remained as an associate supervisor, however, offered little/no constructive support to me although he remained helpful to other students. For instance he would return to Sydney for meetings with students but fail to tell me about his visits, or failing to answer my emails. My replacement primary supervisor tried to help me but was not as familiar with my subject area and I feel he did the best he could offer. I would like to see better safeguards put in place to help students resolve problems such as these, i.e. have the option of replacing the old supervisor
- Transparency of supervisors on the progress report; Supervisors seem not getting my real status of progress
- Publication and Authorship; I was told ambiguous answers about publication and authorship on my project from supervisors

2 QUALITY OF INFRASTRUCTURE

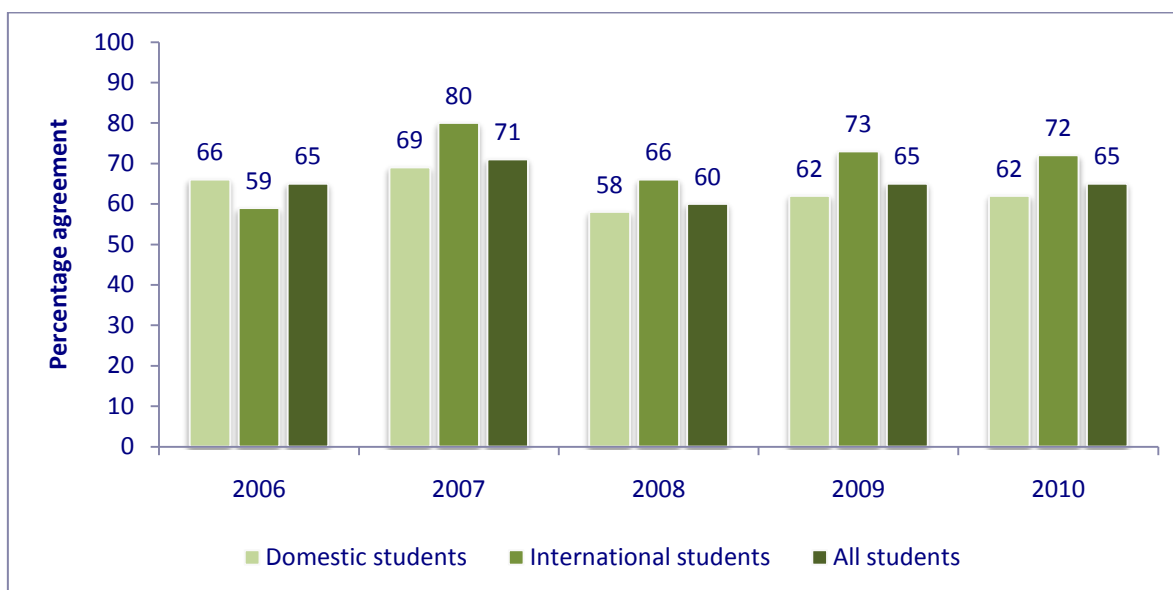
2.1 BACKGROUND INFORMATION

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: 2006 - 2010

The following graph shows the proportion of students who either agreed or strongly agreed with Infrastructure Scale survey items in the SREQ between 2006 and 2010.

Figure 6: Quality of Infrastructure: Percentage agreement results: SREQ 2006 - 2010



2.3 COMPARATIVE RESULTS: FOCUS OF WRITTEN OBSERVATIONS: 2006 – 2010

The following chart provides an indication of trends in the research higher degree student experience of the Quality of Infrastructure, as indicated in their responses to the open questions in the 2006 – 2010 SREQ. It demonstrates the relationship between areas of best practice and areas in need of improvement. Results are reported as a percentage of the total number of comments received from all respondents who supplied written observations.

Figure 7: Quality of Infrastructure: Focus of written observations: SREQ 2006 - 2010



2.4 KEY ISSUES FOR RESEARCH HIGHER DEGREE STUDENTS (SREQ 2010)

2.4.1 Areas of best practice

	Domestic (n=46)	International (n=17)	All (n=63)
Quality of Infrastructure	15%	6%	13%
- Facilities (equipment)	7%	6%	6%

Sample comments

- Access to equipment, materials and electronic resources
- Access to necessary equipments- to develop different skills
- I have good access to journals and a very good library
- Access to equipments and acquiring problem solving skills

2.4.2 Areas needing improvement

	Domestic (n=46)	International (n=17)	All (n=63)
Quality of Infrastructure	72%	71%	71%
- Facilities			
- Equipment (8%)	37%	24%	33%
- Workspace, buildings (10%)			
- OHS (6%)			
- Finance and funding	20%	41%	25%
- Administration	11%	0%	8%

Sample comments

- Greater transparency of research funding to students- supervisor and students should work out costs of research and indicate funding received from Govt etc. for student. Allocation of this funding should be budgeted with student
- Feasibility of experiment including budget and facilities (computer, equipments, materials etc); my computer was a spare in the faculty which has been used for longer than 10 years and powers off automatically often. I believe cannot keep doing the degree with it
- The faculty of Pharmacy's administration is appalling. The funding/technical resources discourage students. The bureaucratic culture does not support research
- working environment needs to be improved, OH&S issues need to be taken seriously and promptly the selection process and criteria for PRSS funding needs to be made more transparent, more students need to have access to these funds especially for overseas conferences

3 RESEARCH CLIMATE

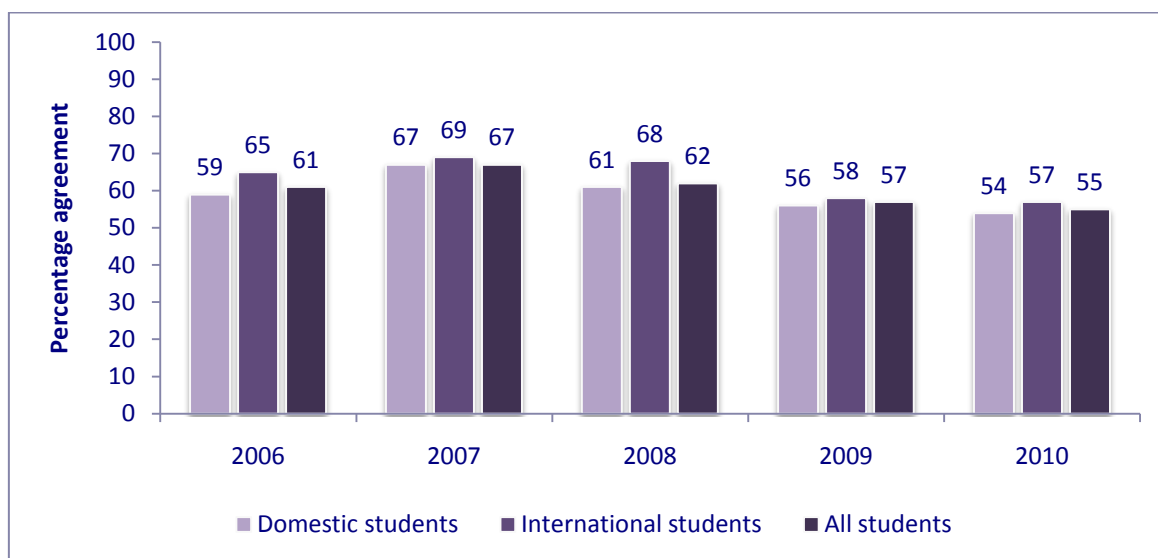
3.1 BACKGROUND INFORMATION

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: 2006 - 2010

The following graph shows the proportion of students who either agreed or strongly agreed with Climate Scale survey items in the SREQ between 2006 and 2010.

Figure 8: Climate Scale: Percentage agreement results: SREQ 2006 - 2010



3.3 COMPARATIVE RESULTS: FOCUS OF WRITTEN OBSERVATIONS: 2006 – 2010

The following chart provides an indication of trends in the research higher degree student experience of Research Climate, as indicated in their responses to the open questions in the 2006 – 2010 SREQ. It demonstrates the relationship between areas of best practice and areas in need of improvement. Results are reported as a percentage of the total number of comments received from all respondents who supplied written observations.

Figure 9: Research Climate: Focus of written observations: SREQ 2006 - 2010



3.4 KEY ISSUES FOR RESEARCH HIGHER DEGREE STUDENTS (SREQ 2010)

3.4.1 Areas of best practice

	Domestic (n=46)	International (n=17)	All (n=63)
Research Climate	37%	0%	27%
- Interaction with other research higher degree students	17%	0%	13%
- Research community/ culture	11%	0%	8%
- Work environment	No students provided comments which indicated a supportive and encouraging work environment		

Sample comments

- co-operation and coordination between all post-graduate students. it helps share the knowledge and skills between all of them and how to overcome any difficulties each of them may have been through during his degree studies
- My desk is currently located in an open office area shared with a variety of other researchers ranging from Post Docs to Honours students. I find this interaction and resulting support very encouraging in what could otherwise be an isolating time
- Meeting people of like minds. My previous experiences of high school and university were with people who were not interested in science and the like. Also, given the number of international students, I feel that meeting and talking to them has widened my view of the world ever so slightly
- Being exposed to a real research environment

3.4.2 Areas needing improvement

	Domestic (n=46)	International (n=17)	All (n=63)
Research Climate	54%	35%	49%
- Work environment	24%	0%	17%
- Research community/ culture	20%	6%	16%

Sample comments

- Collaborating with other groups, and also looking for people with similar research areas not only in the University but also outside it on both national and international level. This will help me develop my project even better and will provide collaborative support in terms of new techniques and would allow to use instruments and techniques not available to us
- Communication and interaction between supervisory groups within the faculty. As it stands, the faculty seems to be isolated within supervisory groups, with people talking within their group and hardly glimpsing others who share the same building. There needs to be more opportunity for this kind of interaction
- we need more meetings to discuss our research with each other. This has to be obligatory because when we invited people it was a failure. I personally feel that I need to see people present their research and answer questions. This was actually happening when the faculty was organised by disciplines, but not anymore.
- Research culture of faculty. I tend to feel there is a very negative attitude towards post-grad students who are made to feel they are never doing a good job

4 GRADUATE ATTRIBUTES

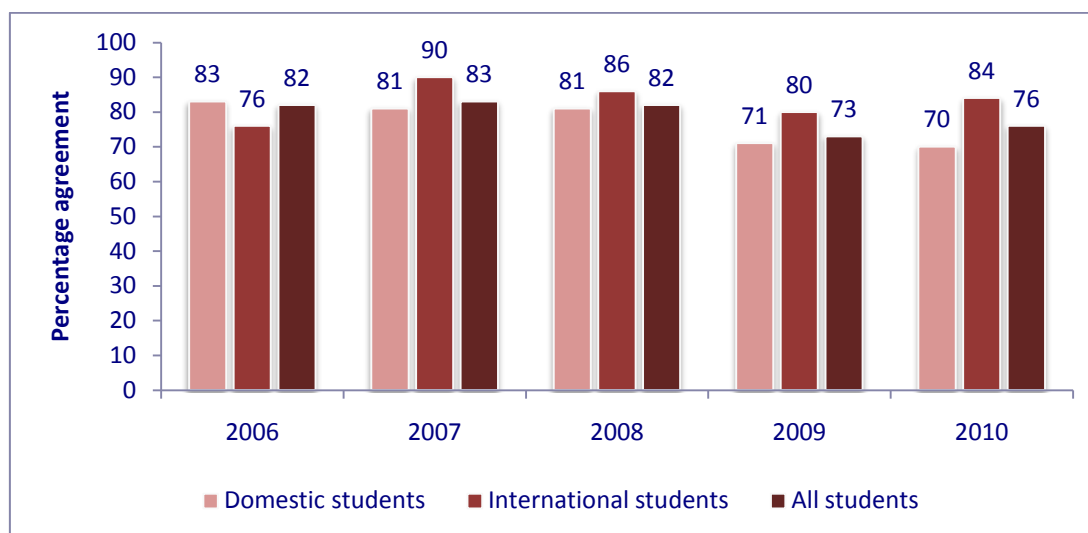
4.2 BACKGROUND INFORMATION

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: 2006 - 2010

The following graph shows the proportion of students who either strongly agreed or agreed with Generic Skills Scale survey items in the SREQ between 2006 and 2010.

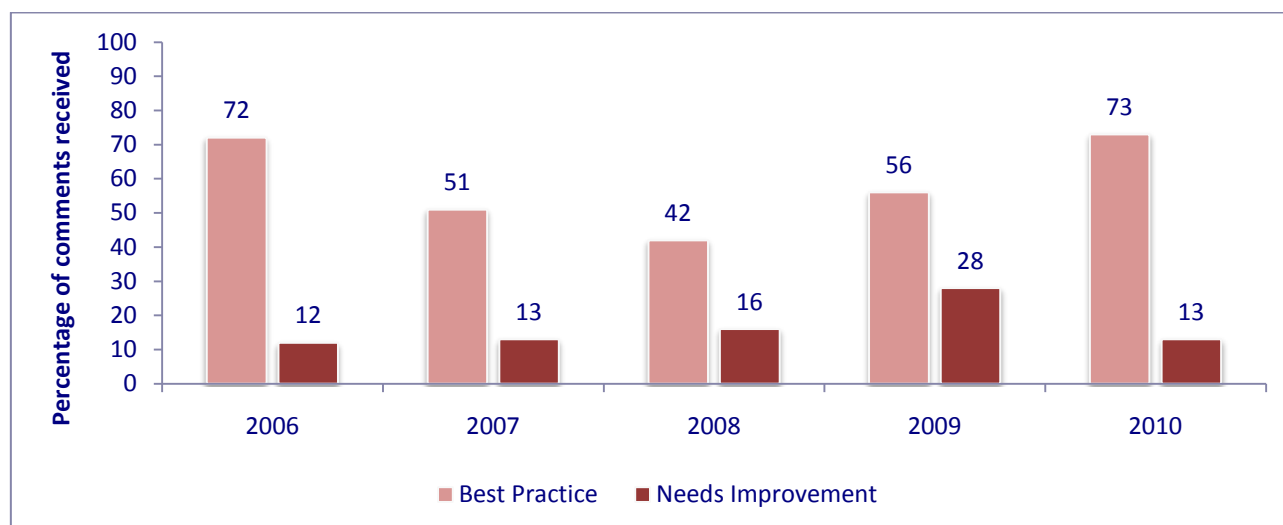
Figure 10: Generic Skills: Percentage agreement results: SREQ 2006 - 2010



4.4 COMPARATIVE RESULTS: FOCUS OF WRITTEN OBSERVATIONS: 2006 – 2010

The following chart provides an indication of trends in the research higher degree student experience relating to the enhancement of University Graduate Attributes, as indicated in their responses to the open questions in the 2006 – 2010 SREQ. It demonstrates the relationship between areas of best practice and areas in need of improvement. Results are reported as a percentage of the total number of comments received from all respondents who supplied written observations.

Figure 11: Graduate Attributes: Focus of written observations: 2006 - 2010



4.4 KEY ISSUES FOR RESEARCH HIGHER DEGREE STUDENTS (SREQ 2010)

4.4.1 Areas of best practice

	Domestic (n=46)	International (n=17)	All (n=63)
Graduate Attributes	63%	100%	73%
- Research and Inquiry	35%	65%	43%
- Personal and intellectual autonomy	20%	24%	21%
- Ethical, social, professional understanding	4%	12%	6%

Sample comments

- Development of critical thinking and being able to identify, access and utilise research resources is invaluable to future career choices
- I get to learn new techniques and instruments which will be helpful to me in the future when I look for a job. Other things I learn from my research is being patience, networking with people which is again good in all aspects of life
- The journey of learning. From knowing nothing about my topic, struggling to find my way through the literature, mastering that area, then continuing to evolve as I go deeper into the research methodology and survey development and design
- I have developed the ability to learn independently, it increase wide thinking

4.4.2 Areas needing improvement

	Domestic (n=46)	International (n=17)	All (n=63)
Graduate Attributes	13%	12%	13%
- Research and Inquiry	9%	6%	8%

Sample comments

- My research skills need to improve because I need these skills to do my thesis properly
- Support for unfamiliar areas. i.e.. in pharmacy, we do not have access to a statistician easily and are often left struggling to understand statistics we have no training in. Increased access to professional statistical advice would be helpful
- Support and openness on various technical skills and collaboration; I proposed the needs of learning technical skills and possible collaboration with other groups to supervisors but was ignored often
- I need to improvise my communication skills ,as English is a second language in our country. It is important to communicate with fellow researches /post graduate students and the faculty

5 OVERALL SATISFACTION

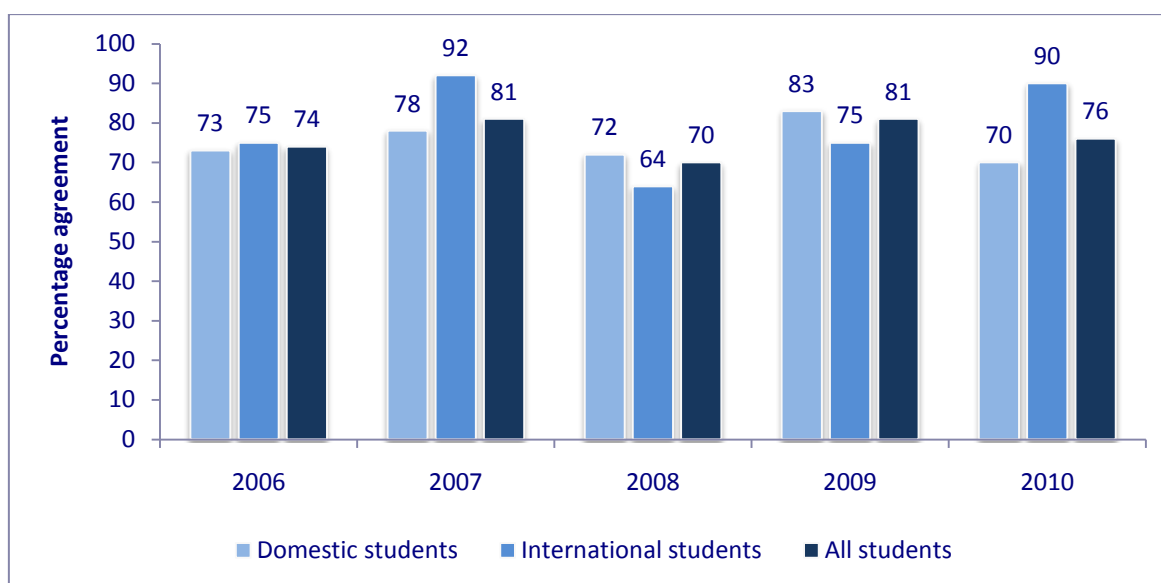
5.1 BACKGROUND INFORMATION

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, flexibility of programme, quality of degree (pressure to complete, coursework, field work, overseas research), and reputation of the university/ faculty.

5.3 COMPARATIVE RESULTS: QUANTITATIVE DATA: 2006 - 2010

The following graph shows the proportion of students who either strongly agreed or agreed with the Overall Satisfaction item in the SREQ between 2006 and 2010.

Figure 12: Overall Satisfaction Item: Percentage agreement results: SREQ 2006 - 2010



5.4 COMPARATIVE RESULTS: FOCUS OF WRITTEN OBSERVATIONS: 2006 – 2010

The following chart provides an indication of trends in the research higher degree student experience aspects which fall within the remit of Overall Satisfaction, as indicated in their responses to the open questions in the 2006 – 2010 SREQ. It demonstrates the relationship between areas of best practice and areas in need of improvement. Results are reported as a percentage of the total number of comments received from all respondents who supplied written observations.

Figure 13: Overall Satisfaction: Focus of written observations: SREQ 2006 - 2010



5.4 KEY ISSUES FOR RESEARCH HIGHER DEGREE STUDENTS (SREQ 2010)

5.4.1 Areas of best practice

	Domestic (n=46)	International (n=17)	All (n=63)
Overall Satisfaction	41%	12%	33%
- Satisfaction with research	24%	6%	19%
- Flexibility of program	15%	0%	11%

Sample comments

- I feel that I am able to do high quality research whilst raising a family. My supervisor and the University have provided wonderful flexibility, allowing me to effectively pursue my research activities
- The scope of new avenues in my research area and pioneering them on my own. This has been essential in my development as a research as it has enabled me to feel confident in my own research ability
- I suppose it's being able to contribute to knowledge, the knowledge base, you know as I publish papers, which I am beginning to do, I feel my little bit of work fits in, you're adding to the knowledge base on the topic
- Doing things I have never done before. I didn't know if I could do them, I didn't think I could do them, I didn't understand them but I am doing them

5.4.2 Areas needing improvement

	Domestic (n=46)	International (n=17)	All (n=63)
Overall Satisfaction	11%	6%	10%

Sample comments

- The Faculty of Pharmacy should also understand that it is the voice of the current PhD students that are heard by future students and that the current message is one of dissatisfaction and recommendation to apply for PhD positions in other Universities where students are more valued
- It just needs a little more invigoration you feel that the faculty's not buzzing, there is no buzz, it needs a little bit of invigoration
- The experiences and the practice
- Control over research direction and focus

ATTACHMENT ONE: STATISTICAL DATA

1 QUANTITATIVE DATA ANALYSIS

Number of research higher degree students surveyed/enrolled 2006 – 2010					
	2006	2007	2008	2009	2010
	n=	n=	n=	n=	n=
Total	59	71	74	90	106

Number of respondents to the SREQ 2006 – 2010					
	2006	2007	2008	2009	2010
	n=	n=	n=	n=	n=
Domestic students	26	45	43	42	55
International students	8	13	11	12	22
Total	34	58	54	54	77
<i>% who responded</i>	58%	82%	73%	60%	73%

2 QUALITATIVE DATA ANALYSIS

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

Number of respondents who answered the open questions SREQ 2006 – 2010						
	<i>Date of survey</i>	2006	2007	2008	2009	2010
		n=	n=	n=	n=	n=
<i>Areas of best practice</i>	Domestic students	20	37	34	34	46
	International students	5	10	9	9	17
	Total	25	47	43	43	63
	<i>% who provided comments</i>	74%	81%	80%	80%	82%

<i>Areas of improvement</i>	Domestic students	19	36	31	30	46
	International students	6	9	7	9	17
	Total	25	45	38	39	63
	<i>% who provided comments</i>	74%	78%	70%	72%	82%

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

ATTACHMENT TWO: NOTES ON ANALYSIS AND COUNTING OF COMMENTS

1 ANALYSIS OF COMMENTS

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

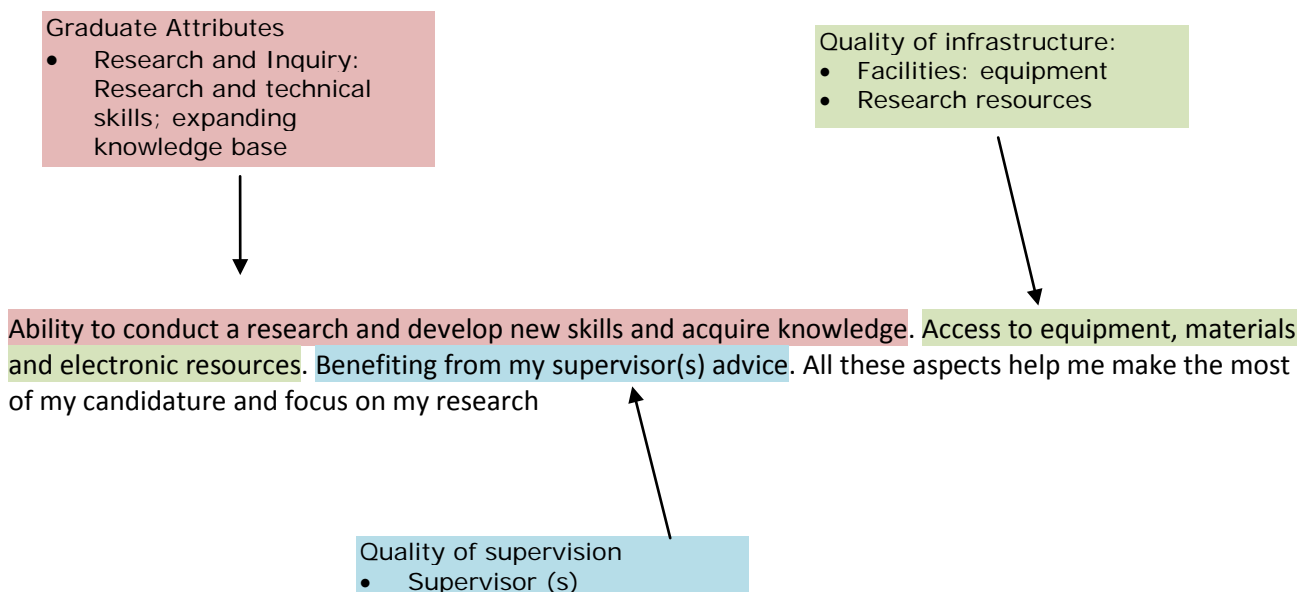
- Characteristics that define the area of the student experience
- SREQ survey items
- recurring themes in students' comments and have been developed over many years of analysing qualitative data from students' surveys.

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

2 COUNTING OF COMMENTS

Each comment is analysed according to the *Taxonomy for analysing qualitative data from the SREQ*, 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 Graduate Attributes (Research and Inquiry: research and technical skills; expanding knowledge base); Quality of Infrastructure (Facilities: equipment; and Research resources); and Quality of Supervision (Supervisor(s)); 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.



ATTACHMENT THREE: 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 (*PGARC; 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*)

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 (*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, international 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 9 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, practical aspects, including field work and visits to other institutions in Australia and overseas*)
- 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*)
- Reputation/ prestige of university/ faculty/ department/ academic staff
- Quality of students
- Staffing issues and resources (*i.e. that affect students overall experience*)
- Writing and completing the thesis

ATTACHMENT FOUR POSTGRADUATE RESEARCH EXPERIENCE QUESTIONNAIRE (PREQ 2010)

INTRODUCTION

The PREQ is a national survey administered by the independent body, the Graduate Careers Council of Australia (GCA). It is a survey of research higher degree *graduates* of all Australian universities. PREQ results are reported at least a year after the research higher degree graduates actually finish their courses i.e. students who completed their research higher degree in 2009 would have completed the PREQ in 2010, with results reported in 2011. The purpose of the PREQ 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 PREQ also provides data for benchmarking between similar programmes in different universities.

Written observations, from respondents to the survey, about their experiences provide evidence to support the University PREQ 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 PREQ, with the addition of items that occur frequently in student comments.

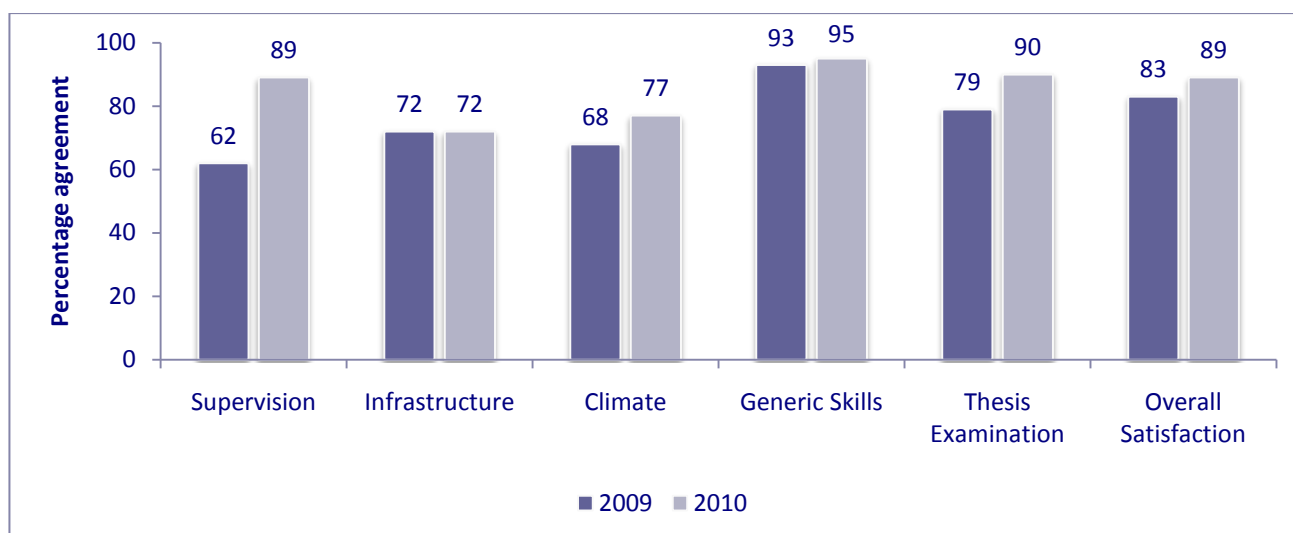
KEY RESULTS FOR 2010

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

QUANTITATIVE DATA

The following chart shows the 2009 and 2010 PREQ percentage agreement results (i.e. respondents who either agreed or strongly agreed with the survey items relating to each scale) for the Faculty, divided into domestic, international and all respondents. 12 graduates (7 domestic; 5 international) responded to the PREQ in 2009 and 9 (7 domestic; 2 international) in 2010. Due to the low numbers data is presented for the whole faculty.

Figure 14: Faculty of Pharmacy: Percentage agreement results: PREQ 2010



FOCUS OF WRITTEN OBSERVATIONS: 2010

In addition to PREQ survey items, graduates are asked to provide written observations on areas of best practice and areas in need of improvement during their studies at the University.

The following written observations were received from research higher degree graduates in response to the open questions in the 2010 PREQ. The broad area(s) by which each comment has been analysed is indicated in the second column

Areas of best practice***Domestic students***

COMMENT	AREAS OF RESEARCH TRAINING EXPERIENCE
My peers. Skills gained in analysis and problem solving.	RESEARCH CLIMATE GRADUATE ATTRIBUTES
learn how to use the technical machine which is essential for the future career.	GRADUATE ATTRIBUTES
Research and innovation.	OVERALL SATISFACTION
Networking with colleagues. and getting support to handle quantitative statistical aspects of the process.	RESEARCH CLIMATE GRADUATE ATTRIBUTES
Great supervisor.	SUPERVISION
Access to enormous amount of literature search whenever needed. Good organisational structuring within the faculty. Access to libraries and overall research experience. with very good supervision.	INFRASTRUCTURE OVERALL SATISFACTION SUPERVISION
Supervision.	SUPERVISION
Library support. Being off-campus.	INFRASTRUCTURE RESEARCH CLIMATE
Learn how to work independently.	GRADUATE ATTRIBUTES

Suggested improvements

COMMENT	AREAS OF RESEARCH TRAINING EXPERIENCE
Laboratory facility. Supervisor-student relations.	INFRASTRUCTURE SUPERVISION
All technical equipments are out of date, not in good condition. No support from post-doc or research fellow (don't have these positions to assist). supervisor lacks of knowledge.	INFRASTRUCTURE RESEARCH CLIMATE SUPERVISION
More help on tackling the logistical aspects of completing the thesis.	SUPERVISION
Facilities and equipments for research.	INFRASTRUCTURE
Instrumentation used in the laboratory need to be advanced and even the lab has to be modified.	INFRASTRUCTURE
desk space.	INFRASTRUCTURE
Financial support - ended up paying for conference attendances (domestic and international) as well as statistical software and other IT infrastructure to enable work at home (less distractions).	INFRASTRUCTURE
Lab instruments.	INFRASTRUCTURE