

# University of Sydney

## Postgraduate Research Experience Questionnaire Report : 2006 – 2009

*(Research higher degree graduates 2005 – 2008)*

November 2010

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## EXECUTIVE SUMMARY

### 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 2008 would have completed the PREQ in 2009, with results reported in 2010. 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 2009

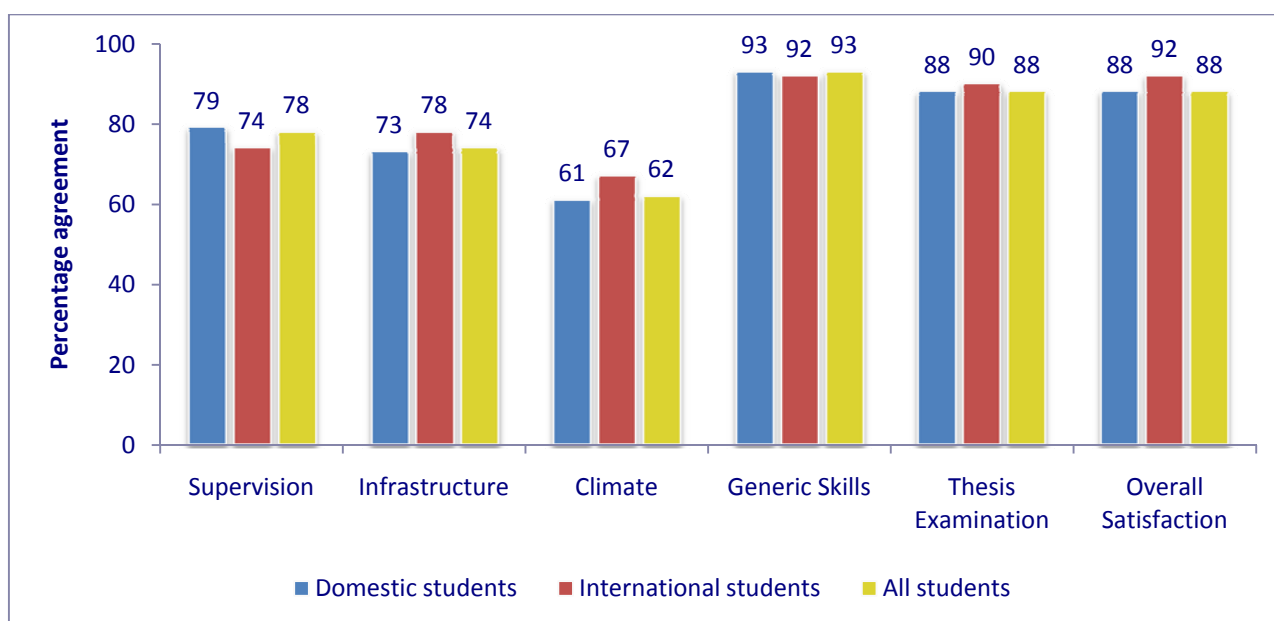
The following results are an indication of those areas of the student experience that were of significance to research higher degree students who completed their degree 2008. The quantitative data (percentage agreement results) reflect the experiences of respondents in relation to specific items in the 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.

**NB:** Sections 1-5 of the report provide further information on trends in the results of the analysis of both quantitative and qualitative data for each PREQ Scale since 2006, together with key issues and sample comments from the 2009 PREQ.

### QUANTITATIVE DATA

The following chart shows the 2009 PREQ percentage agreement results (i.e. respondents who either agreed or strongly agreed with the survey items relating to each scale) for the University, divided into domestic, international and all respondents. Of the 623 research higher degree graduates who completed their studies in 2008, 324 or 52% submitted completed questionnaires in 2009.

Figure 1: University of Sydney: Percentage agreement results: PREQ 2009



**FOCUS OF WRITTEN OBSERVATIONS: PREQ 2009**

Proportional distribution of comments	Focus of comments
<p><b>Best Practice</b></p> <p>■ overall satisfaction      ■ graduate attributes ■ infrastructure          ■ climate ■ supervision              ■ thesis examination</p>	<p><b>Research Climate</b> <b>50%</b> <i>Research community:</i> Conferences, seminars, research culture/ group etc, publishing (23%) <i>Work environment:</i> Challenging, welcoming, supportive, induction, respect (13%) <i>Other students:</i> Study related, social, support (7%)</p> <p><b>Graduate Attributes</b> <b>39%</b> <i>Research &amp; Inquiry:</i> Analytical, problem solving, critical thinking, research skills, expand knowledge (23%) <i>Personal &amp; Intellectual Autonomy:</i> Confidence, time management, tackling unfamiliar problems (8%) <i>Communication:</i> Oral, written, presentation (4%) <i>Information literacy:</i> Using information, computing e.g. EndNote, NVivo (3%)</p> <p><b>Overall Satisfaction</b> <b>50%</b> <i>Satisfaction with research:</i> Topic, contribution to field etc (20%) <i>Flexibility of program:</i> Freedom, independence (16%) <i>Writing and completing:</i> finishing, submitting (6%)</p> <p><b>Supervision</b> <b>32%</b> <i>Supervisors:</i> Supervisor(s), feedback, meetings (26%) <i>Supervision process:</i> General comments (4%)</p> <p><b>Infrastructure</b> <b>18%</b> <i>Facilities:</i> Workspace, equipment, laboratories, buildings (6%) <i>Research resources:</i> Library services, faculty provided (7%) <i>Funding:</i> for research, scholarships, grants etc (3%)</p> <p><b>Thesis examination process</b> <b>0.4%</b> <i>Feedback</i> – one respondents appreciated feedback from examiners</p>
<p><b>Needs improvement</b></p> <p>■ overall satisfaction      ■ graduate attributes ■ infrastructure          ■ climate ■ supervision              ■ thesis examination</p>	<p><b>Infrastructure</b> <b>56%</b> <i>Facilities:</i> Workspace, equipment, laboratories, (19%) <i>Funding:</i> for research, scholarships, grants, travel, conferences etc (24%) <i>Administration:</i> faculty and university (6%)</p> <p><b>Research Climate</b> <b>43%</b> <i>Work environment:</i> Challenging, welcoming, supportive, induction, respect (14%) <i>Research community:</i> Conferences, seminars, research culture/ group etc, publishing (14%) <i>Other students:</i> Study related, social, support (6%)</p> <p><b>Supervision</b> <b>25%</b> <i>Supervisors:</i> Supervisor(s), feedback on work (9%) <i>Management of candidature:</i> Guidance, APR, workload (7%) <i>Supervision process:</i> General comments, evaluation of supervisors (9%)</p> <p><b>Overall Satisfaction</b> <b>19%</b> <i>Quality of degree:</i> coursework, length, status (7%) <i>Staffing issues and resources</i> (i.e. that affect candidature) (4%)</p> <p><b>Graduate Attributes</b> <b>13%</b> <i>Research &amp; Inquiry:</i> Research skills, statistical skills (7%) <i>Communication:</i> Oral, written, presentation (3%) <i>Information Literacy:</i> Using information; computing (3%)</p> <p><b>Thesis Examination</b> <b>13%</b> <i>Examination process</i> (6%) <i>Marking, including time taken</i> (4%)</p>

All 2008 research higher degree graduates received the PREQ in 2009; 52% responded  
83% of respondents provide answers to question on best practice; 70% suggest improvements  
Narrative and chart data show the percentage of the total number of comments received – adds up to more than 100% because students mention more than one thing in their answers, each of which is counted once. The statistical data indicates the distribution within each scale and category. (see Attachment Two for explanation on analysis and counting of comments)

### **COMPARISON WITH STUDENT RESEARCH EXPERIENCE QUESTIONNAIRE (SREQ) 2008**

Since it is possible that final year respondents to the 2008 SREQ might also have responded to the 2009 PREQ after they graduated, comparative quantitative and qualitative data relating to the SREQ 2008 and the 2009 PREQ is appended to this report (Attachment 2).

### **FOR MORE INFORMATION**

#### ***On the analysis and reporting of qualitative data***

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#### ***On PREQ and how to interpret results***

Staff of the ITL are available to provide support to faculties in the interpretation of the PREQ data and the development of strategic responses to address any issues identified

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PREQ results and reports are at <http://www.itl.usyd.edu.au/preq/reports.cfm>

## INTRODUCTION

### POSTGRADUATE RESEARCH EXPERIENCE QUESTIONNAIRE (PREQ)

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. 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.

The Institute for Teaching and Learning (ITL) PREQ reports use responses obtained from research higher degree graduates of the University of Sydney who completed their degrees in the previous year (i.e. the 2009 reports are for graduates who completed in 2008). The ITL reports use the GCA data and are therefore usually published shortly after the GCA reports. As an example, the 2009 reports are for graduates who completed their courses in 2008. The data is collected during 2009 and the reports are published in 2009<sup>1</sup>. It is important to note that, because of the relatively small number of research higher degree graduates in any one year, the number of respondents for a given year and faculty are often low. For this reason the ITL also runs an annual survey of currently enrolled research higher degree graduates, the Student Research Experience Questionnaire (SREQ)<sup>2</sup>.

In the PREQ graduates are asked to respond to statements which, clustered together, form the factor scales: Supervision, Infrastructure, Climate, Generic Skills, Thesis Examination, and the Overall Satisfaction Item. The following open response questions are also included in the PREQ:

- *What were the best aspects of your course?*
- *What aspects of your course were most in need of improvement?*

Quantitative and qualitative data from the PREQ 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 PREQ, this report seeks to provide an analysis of observable trends in the experiences of research higher degree graduates of the University of Sydney between 2005 and 2008 (PREQ 2006 – 2009). The report also provides detailed information on the key issues highlighted in the analysis of the 2009 PREQ 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, Thesis Examination 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 graduates' comments in the 2009 PREQ, this report seeks to highlight areas that were of best practice in the graduates' experience during their research higher degree studies at the University of Sydney, together with those that have been suggested as areas of improvement.

The views of the research higher degree graduates, 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 graduates were happy with their experiences, and prefer to focus on commenting about areas in need of improvement. It should also be noted that research higher degree respondents to the PREQ, have consistently provided more comments relating to areas of best practice than those requiring improvement.

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

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<sup>1</sup> Further information about the PREQ can be found at [Hhttp://www.itl.usyd.edu.au/preq/](http://www.itl.usyd.edu.au/preq/)H

<sup>2</sup> See [Hhttp://www.itl.usyd.edu.au/sreq/](http://www.itl.usyd.edu.au/sreq/)H for SREQ results and reports.

## GLOSSARY

The following terms and phrases are used throughout the report

- PREQ** Postgraduate Research Experience Questionnaire  
Administered to postgraduate research graduates annually, during the year after they finish their studies.
- SREQ** Student Research Experience Questionnaire.  
Administered annually to current research higher degree graduates
- Supervision Scale**  
**Infrastructure Scale**  
**Climate Scale**  
**Generic Skills Scale**  
**Thesis Examination Scale**  
**Overall Satisfaction Item**
- Items in the PREQ have been shown to cluster together to form factor scales:
- Supervision
  - Infrastructure
  - Climate
  - Generic Skills
  - Thesis Examination
  - 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**
- PREQ item responses are combined and reported in terms of the proportions of graduates who agreed or disagreed that their research higher degree experience was positive in the areas of: Supervision; Infrastructure; Climate; Generic Skills; Thesis Examination; and Overall Satisfaction.
- Quality of Supervision**  
**Quality of Infrastructure**  
**Research Climate**  
**Graduate Attributes**  
**Thesis Examination Process**  
**Overall Satisfaction**
- The University of Sydney Postgraduate Research Experience Questionnaire (PREQ) report is based upon categories used in the SREQ/PREQ Taxonomy:
- Quality of Supervision
  - Quality of Infrastructure
  - Research Climate
  - Graduate Attributes
  - Thesis Examination Process
  - 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**
- Graduates' written observations received in response to open ended questions in the PREQ:
- What were the **best** aspects of your course?
  - What aspects of your course are most in need of **improvement**?
- 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 PREQ in any particular year.
- Key issues**
- 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 key issues in the report.

## 1 QUALITY OF SUPERVISION

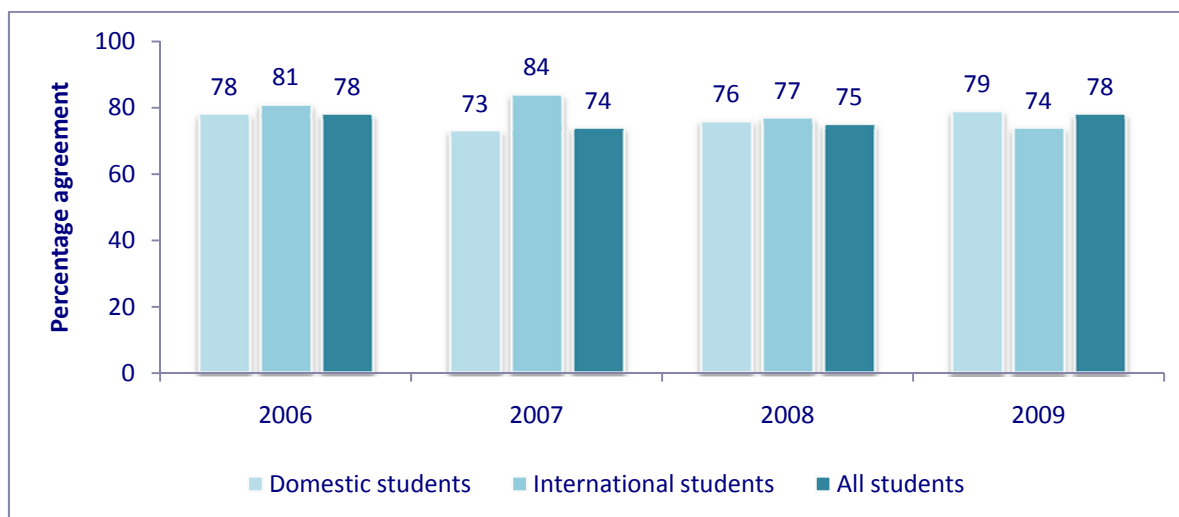
### 1.1 BACKGROUND INFORMATION

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 2006 – 2009

The following graph shows the proportion of graduates who either agreed or strongly agreed with relevant Supervision Scale survey items in the PREQ between 2006 and 2009.

Figure 2: Supervision Scale: Percentage agreement results: PREQ 2006 - 2009



### 1.3 FOCUS OF WRITTEN OBSERVATIONS: 2006 - 2009

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 - 2009 PREQ. 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 3: Quality of Supervision: Focus of written observations: PREQ 2006 - 2009



## 1.4 KEY ISSUES: PREQ 2009

This section provides information on the aspects of Supervision that were considered significant enough in the research higher degree student experience to merit mention by over 5% of the graduates who provided written observations in their responses to the 2009 PREQ. Results are expressed as a percentage of comments received per aspect by domestic, international and all graduates.

### 1.4.1 Areas of best practice

	Domestic (n=212)	International (n=57)	All (n=269)
<b>Quality of Supervision</b>	<b>35%</b>	<b>19%</b>	<b>32%</b>
- Supervisor(s)	28%	18%	26%

#### Sample comments

- *My supervisor was very encouraging and thorough at proof reading my work. She was willing to give me supervision even without the support of funding from the University who cut back dramatically on hours of supervision*
- *Dr. XXX was a phenomenal supervisor! She helped me to apply for scholarships, and encouraged me with everything that I did. She supplied books and reading lists for me, and really should be commended for her work. She is the best lecturer I had in my undergrad, and I could not have asked for more in a supervisor*
- *Having a supervisor with vision and an eye on current research trends. My supervisor has facilitated me with every possible tool to complete my research. If it was not him, I was not able to complete my research on time*
- *Research supervision was excellent. My main supervisor gave me advice and helped me in key moments of the process (development of proposal, preparation of thesis) and left me alone when I needed not to be bothered (for example, when conducting the data gathering or when elaborating the first analyses). My associate supervisor gave helped me with more 'practical' issues, such as finding suitable interviewees. A perfect combination*

### 1.4.2 Areas needing improvement

	Domestic (n=175)	International (n=53)	All (n=228)
<b>Quality of Supervision</b>	<b>29%</b>	<b>15%</b>	<b>25%</b>
- Supervisor(s)	9%	11%	9%
- Supervision process	11%	0%	9%
- Management of candidature	9%	4%	7%

#### Sample comments

- *Clear guidelines on supervision expectations and actually following up on feedback provided in annual progress reviews when the student is repeatedly indicating insufficient time with supervisor*
- *I think I needed more help with regards to topic development*
- *Difficulties were experienced with unrealistic supervisor demands and the system was really unable to handle this*
- *I had a primary supervisor that was very 'hands-off', i.e. I rarely saw him. I had 2 other supervisors that had the primary expertise I needed but were not the primary. I was left very much to my own devices, with few deadlines and guidance re processes to actually finishing the thesis. Also, I had a supervisor that encouraged too big a thesis. All of these factors contributed to an long completion time, much of it spent chasing supervision. Partly this was my responsibility, but now I understand that when supervising a research student, we need to set up a clear process of learning to do research that is clearly defined, with deadlines, clear goals and a realistic outcome.*

## 2 QUALITY OF INFRASTRUCTURE

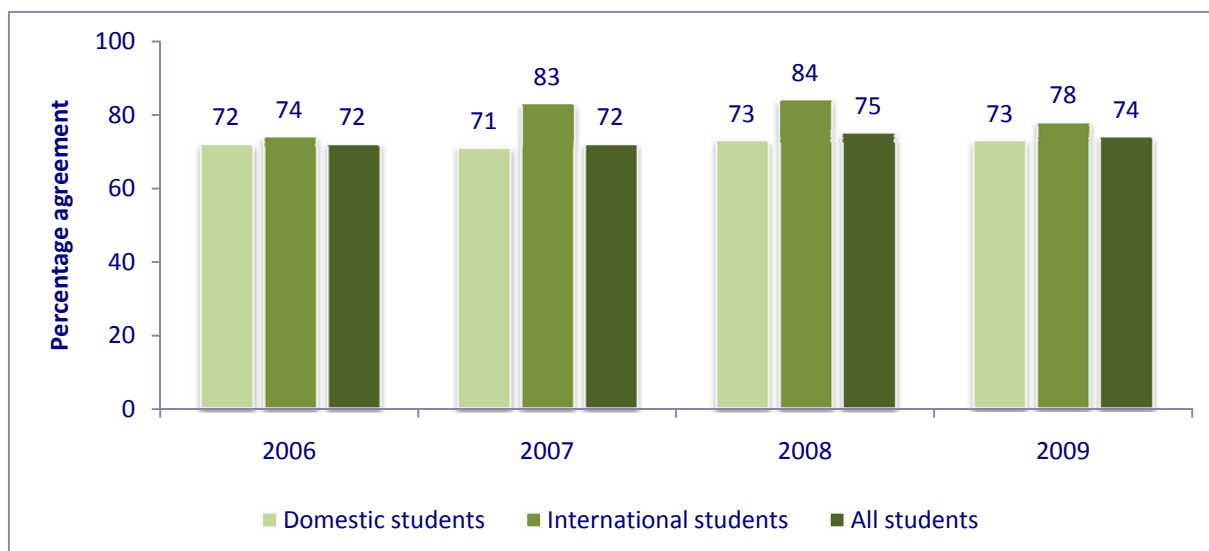
### 2.1 BACKGROUND INFORMATION

The *Infrastructure Scale* covers aspects of the infrastructure available to research graduates, 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 – 2009

The following graph shows the proportion of graduates who either agreed or strongly agreed with Infrastructure Scale survey items in the PREQ between 2006 and 2009.

Figure 4: Infrastructure Scale: Percentage agreement results: PREQ 2006 - 2009



### 2.3 FOCUS OF WRITTEN OBSERVATIONS: 2006 – 2009

#### 2.3.1 Overview: all graduates

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 – 2009 PREQ. 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 Infrastructure: Focus of written observations: PREQ 2006 - 2009



## 2.4 KEY ISSUES: PREQ 2009

This section provides information on the aspects of Infrastructure that were considered significant enough in the research higher degree student experience to merit mention by over 5% of the graduates who provided written observations in their responses to the 2009 PREQ. Results are expressed as a percentage of comments received per aspect by domestic, international and all graduates.

### 2.4.1 Areas of best practice

	Domestic (n=212)	International (n=57)	All (n=269)
<b>Quality of Infrastructure</b>	<b>14%</b>	<b>32%</b>	<b>18%</b>
- Facilities (computers, equipment, workspace etc)	5%	11%	6%
- Research resources	6%	11%	7%

#### Sample comments

- *I was provided with a laptop for any times that I needed it*
- *The university provides excellent facilities for students. I always had my personal space, my own computer, access to research software, etc*
- *Fisher library and faculty staff were generally very helpful. Excellent library resources*
- *Besides, it is important to highlight the work of the library, which I regard as more than excellent. They provide workshops on key skills (such as information searching, use of End note, use of Web of Science, etc) and have an impressive electronic collection. The library was one of the main elements that made my stay at Sydney a pleasure*

### 2.4.2 Areas needing improvement

	Domestic (n=175)	International (n=53)	All (n=228)
<b>Quality of Infrastructure</b>	<b>60%</b>	<b>43%</b>	<b>56%</b>
- Finance and funding (incl. scholarships)	23%	26%	24%
- Facilities (computers, equipment, workspace etc)	22%	9%	19%
- Administration	6%	4%	6%

#### Sample comments

- *I personally feel there needs to be a more balanced allocation of research funding to the students. Some students seem to be successful in their PRSS application every year while some seem to have been consistently unsuccessful*
- *Funding for research students for travel to conferences where they represent the university is extremely limited or unavailable*
- *PhD students should have dedicated office space and resources (but they don't)*
- *Faculty communication was convoluted, repetitious, and contradictory*

### 3 RESEARCH CLIMATE

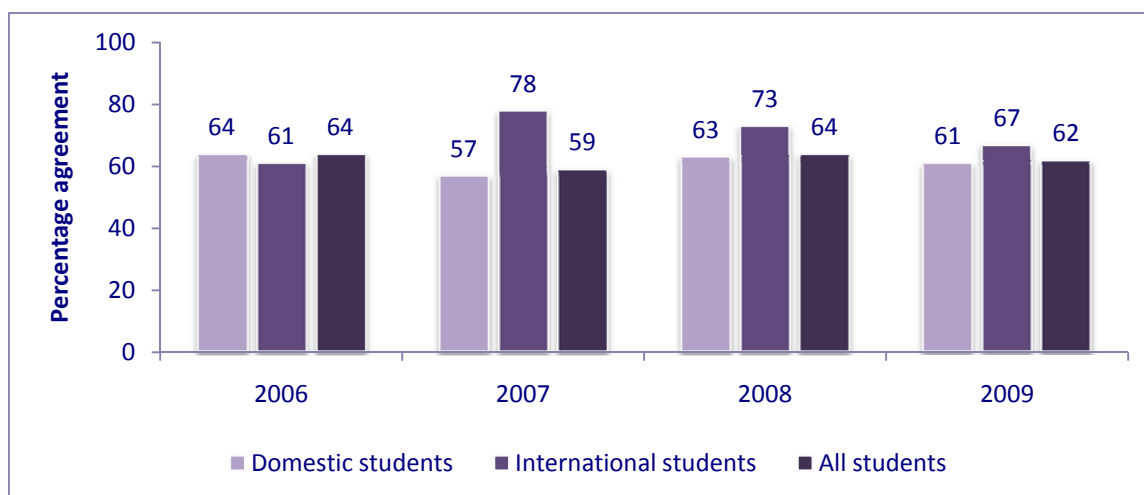
#### 3.1 BACKGROUND INFORMATION

The *Climate Scale* covers aspects of the prevailing research climate in a graduates' school/ department, including: opportunities for social contact with other postgraduate graduates; integration into the school/ department community; opportunities to become involved in the broader research culture; perception of other research graduates as supportive; feelings of isolation within the school/ department; encouragement of interaction with other research graduates; 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 – 2009

The following graph shows the proportion of graduates who either agreed or strongly agreed with Climate Scale survey items in the PREQ between 2006 and 2009.

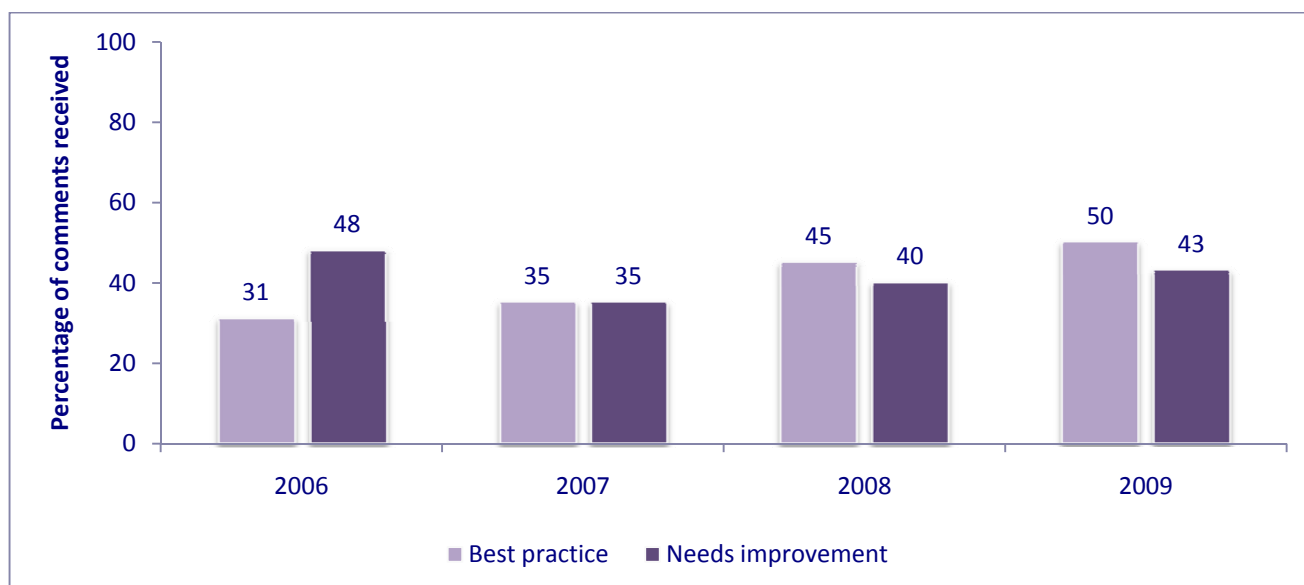
Figure 6: Climate Scale: Percentage agreement results: PREQ 2006 - 2009



#### 3.3 FOCUS OF WRITTEN OBSERVATIONS: 2006 – 2009

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 – 2009 PREQ. 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: Research Climate: Focus of written observations: PREQ 2006 - 2009



### 3.4 KEY ISSUES : PREQ 2009

This section provides information on the aspects of the Research Climate that were considered significant enough in the research higher degree student experience to merit mention by over 5% of the graduates who provided written observations in their responses to the 2009 PREQ. Results are expressed as a percentage of comments received per aspect by domestic, international and all graduates.

#### 3.4.1 Areas of best practice

	Domestic (n=212)	International (n=57)	All (n=269)
<b>Research Climate</b>	<b>54%</b>	<b>37%</b>	<b>50%</b>
- Research culture/ community	24%	23%	23%
- Work environment	15%	7%	13%
- Interaction with other research higher degree students	8%	4%	7%

#### Sample comments

- *The research culture at the University of Sydney, but in particular in the XXX Department, was challenging, supportive and innovative. Working now in a smaller university I realise how important that was not just for friendships and social support, but for preparing me in my chosen career. It gave me a sense of myself as a researcher and an academic and prepared me to foster good working relationships and intellectual generosity with my peers. I hope to take that experience and recreate it wherever I go as I now see it as a necessary infrastructure for good research cultures*
- *Many good things. Generally a friendly and supportive environment. I felt encouraged and valued by both staff and fellow students*
- *The university provided me with many opportunities to attend conferences both in Australia and abroad which facilitated good communication with many experts in my field*
- *The environment is very supportive and professional. All services are built around students' needs. Everyone tries to make your life easier and you are able to concentrate in what you need to do, which is your research*

#### 3.4.2 Areas needing improvement

	Domestic (n=175)	International (n=53)	All (n=228)
<b>Research Climate</b>	<b>42%</b>	<b>43%</b>	<b>43%</b>
- Work environment	17%	6%	14%
- Research culture/ community	13%	19%	14%
- Interaction with other research higher degree students	5%	8%	6%

#### Sample comments

- *It would also be ideal if all students could attend one funded local (within Australia) conference a year. I believe this would help students to network for later in their career, and to keep up to date with the research done in other research communities in Australia*
- *In our department there is a world for post grads and a world for full-time academics. We are not treated like a functioning part of the dept. Apart from the occasional lecture and the Monday seminar there is not a lot a lot on offer. But its friendly. It has got different now that I've graduated. Which only emphasises my point*
- *While students doing this degree do discuss their work with each other, more often than not they cannot fully grasp the others work because of the specificity of the topics. Consequently, students work more or less in isolation for years at a stretch. This could perhaps be remedied by encouraging interdisciplinary group projects*
- *More support for postgraduate students within the department to develop themselves in a more rounded way (i.e. discussions, work in community, applying their work), rather than just focusing on their thesis*

## 4 GRADUATE ATTRIBUTES

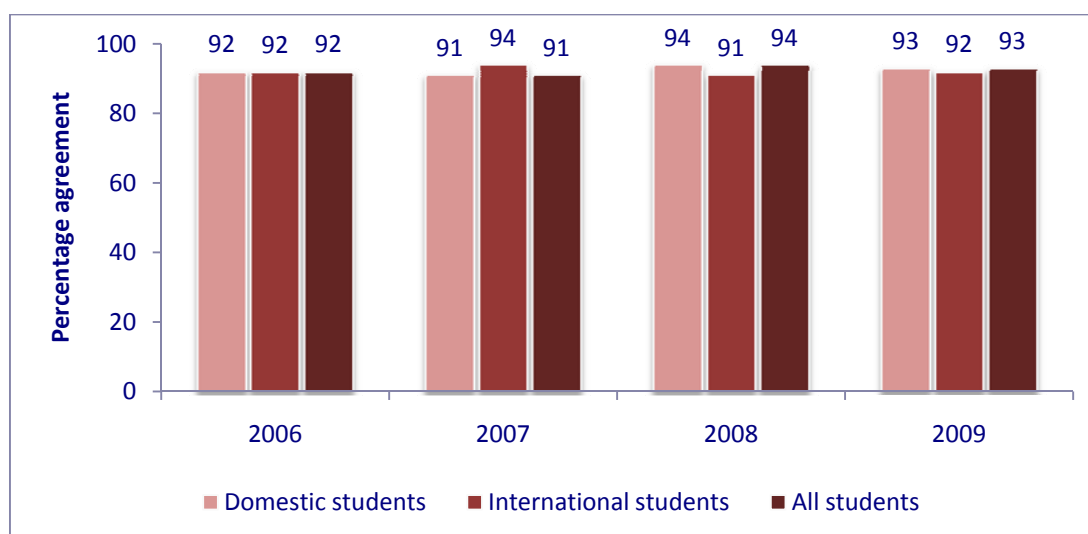
### 4.1 BACKGROUND INFORMATION

The *Generic Skills* scale reflects the extent to which graduates 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

### 4.2 COMPARATIVE RESULTS: QUANTITATIVE DATA 2006 – 2009

The following graph shows the proportion of graduates who either strongly agreed or agreed with Generic Skills Scale survey items in the PREQ between 2006 and 2009.

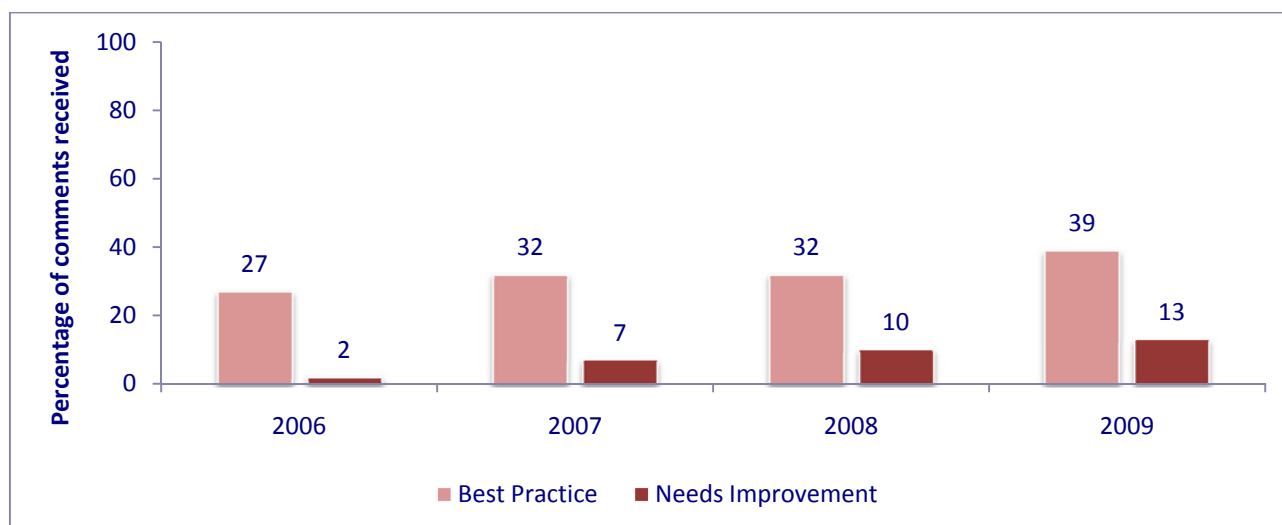
Figure 8: Generic Skills: Percentage agreement results: PREQ 2006 - 2009



### 4.3 FOCUS OF WRITTEN OBSERVATIONS: 2005–2009

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 2005 – 2009 PREQ. 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: Graduate Attributes: Focus of written observations: PREQ 2006 - 2009



#### 4.4 KEY ISSUES : PREQ 2009

This section provides information on graduates' perceptions of the development or enhancement of tasks and abilities within each of the University Graduate Attribute clusters that were considered significant enough to merit mention by over 5% of the graduates who provided written observations in their responses to the 2009 PREQ. Results are expressed as a percentage of comments received per aspect by domestic, international and all graduates.

##### 4.4.1 Areas of best practice

	Domestic (n=212)	International (n=57)	All (n=269)
<b>Graduate Attributes</b>	<b>36%</b>	<b>53%</b>	<b>39%</b>
- Research and inquiry	23%	23%	23%
- Personal and intellectual autonomy	7%	14%	8%

##### Sample comments

- *Developing excellent research analytical and writing skills*
- *The postgraduate research studies enhanced my public speaking skills and confidence. I feel that I can face more challenging situations due to skills I have gained through these studies*
- *Improvement of research skills/problem solving skills/presentation skills/English*
- *Through my PhD experiences, I have developed an understanding of the methodological compromises inherent in conducting research, and a sense of gratification in following a project from its genesis to its completion*

##### 4.4.2 Areas needing improvement

	Domestic (n=175)	International (n=53)	All (n=228)
<b>Graduate Attributes</b>	<b>12%</b>	<b>17%</b>	<b>13%</b>
- Research and inquiry	5%	13%	7%

##### Sample comments

- *Scientific writing, bringing together ideas that made sense on paper not just in my head*
- *I needed advice and guidance with End Note, literature searching etc as my skills in this area were suboptimal. The staff at the library were very helpful and supportive however it would have been good if there was a more structured program on this topic*
- *More statistical analytical skills*
- *It would have helped to have a better understanding of qualitative and quantitative approaches earlier. A lot of information is acquired gradually, almost fortuitously of the research project*

## 5 THESIS EXAMINATION PROCESS

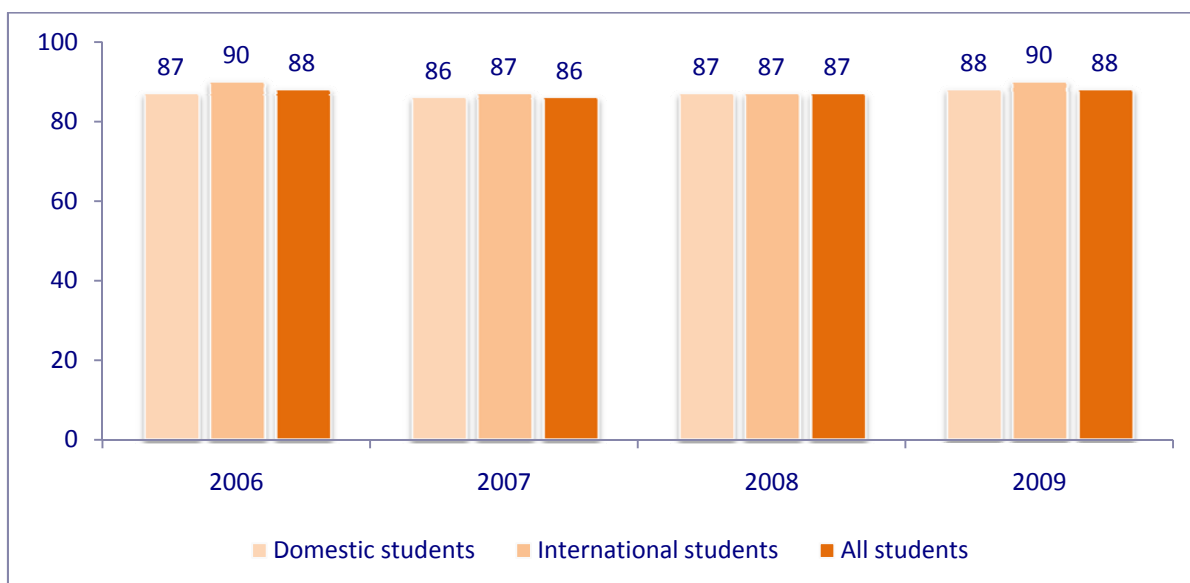
### 5.1 BACKGROUND INFORMATION

The *Thesis Examination Scale* reflects the extent to which graduates are satisfied with the process of examination of their dissertation, and understood the standard of work required.

### 5.3 COMPARATIVE RESULTS: QUANTITATIVE DATA 2006 – 2009

The following graph shows the proportion of graduates who either strongly agreed or agreed with the Thesis Examination Scale survey items in the PREQ between 2006 and 2009.

Figure 10: Thesis Examination Scale: Percentage agreement results: PREQ 2006 - 2009



### 5.3 FOCUS OF WRITTEN OBSERVATIONS: 2005–2009

The following chart provides an indication of trends in the research higher degree student experience of Thesis Examination Process, as indicated in their responses to the open questions in the 2006 – 2009 PREQ. 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: Thesis Examination Process: Focus of written observations: PREQ 2006 - 2009



## 5.4 KEY ISSUES: PREQ 2009

This section provides information on the aspects of Thesis Examination that were considered significant enough in the research higher degree student experience to merit mention by over 5% of the graduates who provided written observations in their responses to the 2009 PREQ. Results are expressed as a percentage of comments received per aspect by domestic, international and all graduates.

From the evidence received, it appears that respondents to the PREQ focus their written observations on Thesis Examination as an area in need of improvement, and prefer to write about other areas of their experience as being of best practice. It should be noted, however, that the quantitative data results have exceeded 86% agreement for the past four years.

### 4.4.1 Areas of best practice

One respondent to the 2009 PREQ was satisfied that “my examiners appreciated my research”

### 4.4.2 Areas needing improvement

	Domestic (n=175)	International (n=53)	All (n=228)
<b>Thesis Examination Process</b>	<b>15%</b>	<b>6%</b>	<b>13%</b>
- Examination process	6%	4%	6%

#### Sample comments

- *The examination process includes one group meeting attended by the 3 examiners, the candidate and a chair. This part of the examination process needs improving. In my group examination meeting, the chair followed the guidelines very well, but nevertheless little time was left for questions to be adequately addressed. Time ran out and much of the time was spent in discussion between examiners. Examiners' comments, made during the meeting and in written form later, suggested that the examiners did not adequately understand the thesis. The poverty of this discussion is still distressing even 6 months later. It could possibly be improved with individual meetings between candidate and each examiner, rather than one group meeting*
- *Monitoring and management of the thesis marking. One supervisor took 6 months, and I was not kept informed of the reason for the delay, or what steps were being taken to get the marker to complete (or relinquish) the marking task. This was very frustrating*
- *PhD students from overseas have oral defenses as their examination method. This seems to be more efficient as the entire examination process takes place during their period as a PhD student and not when they have taken up a new position. I found the Usyd examination process to be a disadvantage when applying for postdoctoral fellowships as the date at which you expect to attain your doctorate is required and funding agencies wish to know when you will be able to give them your doctoral certificate*
- *Ensuring that the appointed external examiners remained committed during the entire examination process*

## 6 OVERALL SATISFACTION

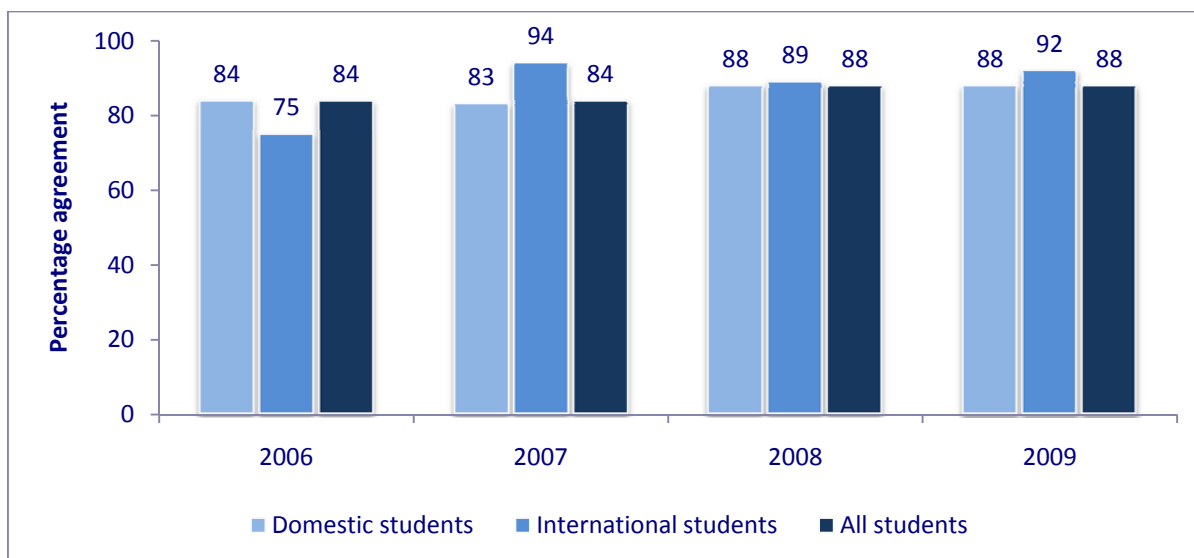
### 6.1 BACKGROUND INFORMATION

This single item asks graduates 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 (coursework, pressure to complete, practical components), flexibility of program, writing and completion of dissertation, and reputation of the university/faculty/academic staff.

### 6.3 COMPARATIVE RESULTS: QUANTITATIVE DATA 2006 – 2009

The following graph shows the proportion of graduates who either strongly agreed or agreed with the Overall Satisfaction item in the PREQ between 2006 and 2009.

Figure 12: Overall Satisfaction Item: Percentage agreement results: PREQ 2006 - 2009



### 6.3 FOCUS OF WRITTEN OBSERVATIONS: 2006 – 2009

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 – 2009 PREQ. 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: PREQ 2006 - 2009



## 6.4 KEY ISSUES: PREQ 2009

This section provides information on the aspects of Overall Satisfaction that were considered significant enough in the research higher degree student experience to merit mention by over 5% of the graduates who provided written observations in their responses to the 2009 PREQ. Results are expressed as a percentage of comments received per aspect by domestic, international and all graduates.

### 6.4.1 Areas of best practice

	Domestic (n=212)	International (n=57)	All (n=269)
<b>Overall satisfaction</b>	<b>50%</b>	<b>47%</b>	<b>50%</b>
- Satisfaction with research	21%	19%	21%
- Flexibility of program	16%	19%	16%
- Writing and completing thesis	8%	2%	6%

#### Sample comments

- *Freedom in exploring whatever I was interested*
- *The opportunity to use the discipline and structure of post-grad study to reflect on and research a long professional career*
- *Coming up with my own unique ideas*
- *The writing of the thesis and the final binding of thesis was the best aspect for me*

### 6.4.2 Areas needing improvement

	Domestic (n=175)	International (n=53)	All (n=228)
<b>Overall satisfaction</b>	<b>21%</b>	<b>11%</b>	<b>19%</b>
- Quality of degree	7%	9%	7%

#### Sample comments

- *While developing or formulating the research question mostly in the first 1 or 1.5 years of the course the department should adopt more flexible approach. That is it should just not impose a standardised framework on every student, that is, at the end, asking each of them to revise and restructure the research question as per the primary research strengths of the department*
- *The pressure to complete within 4 years was very great and lead to a lot of stress*
- *Many poor international students taken on by other research supervisors, bringing down the reputation of the department and degree. Observable loss in quality of undergraduate intake over past 4 years. Substandard knowledge of course material, lack of top flight students*
- *It would be better to provide some coursework for junior research students*

**ATTACHMENT ONE: STATISTICAL DATA PREQ 2006 - 2009****1 QUANTITATIVE DATA ANALYSIS**

<b>Number of research higher degree graduations 2005 – 2008<sup>3</sup></b>				
	2005	2006	2007	2008
	n=	n=	n=	n=
Doctorate (Res)	463	484	523	483
Master (Res)	170	182	162	140
<b>Total</b>	<b>633</b>	<b>666</b>	<b>685</b>	<b>623</b>

<b>Number of respondents to the PREQ 2006 – 2009</b> (i.e. students who graduated 2005 – 2008 and answered the PREQ)				
	2006	2007	2008	2009
	n=	n=	n=	n=
Domestic graduates	309	289	266	263
International graduates	20	31	47	61
<b>Total</b>	<b>329</b>	<b>320</b>	<b>313</b>	<b>324</b>
<i>% who responded</i>	60%	48%	46%	52%

**2 QUALITATIVE DATA ANALYSIS**

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

<b>Number of respondents who answered the open questions PREQ 2006 – 2009</b>					
	Date of survey	2006	2007	2008	2009
		n=	n=	n=	n=
<i>Areas of best practice</i>	Domestic graduates	226	164	231	212
	International graduates	13	18	42	57
	<b>Total</b>	<b>239</b>	<b>182</b>	<b>273</b>	<b>269</b>
	<i>% who provided comments</i>	73%	57%	87%	83%
<i>Areas of improvement</i>	Domestic graduates	183	131	191	175
	International graduates	12	14	35	53
	<b>Total</b>	<b>195</b>	<b>145</b>	<b>226</b>	<b>228</b>
	<i>% who provided comments</i>	59%	45%	72%	70%

**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

<sup>3</sup> Data retrieved from University Statistics Office website 26.10.10

## ATTACHMENT TWO: COMPARISON SREQ 2008 and PREQ 2009

Since it is possible that final year respondents to the 2008 SREQ might also have responded to the 2009 PREQ after they graduated, the following comparative data is provided as an indication of the relationship between areas of the research higher degree student experience that were of importance whilst current students (SREQ 2008) and upon graduation (PREQ 2009).

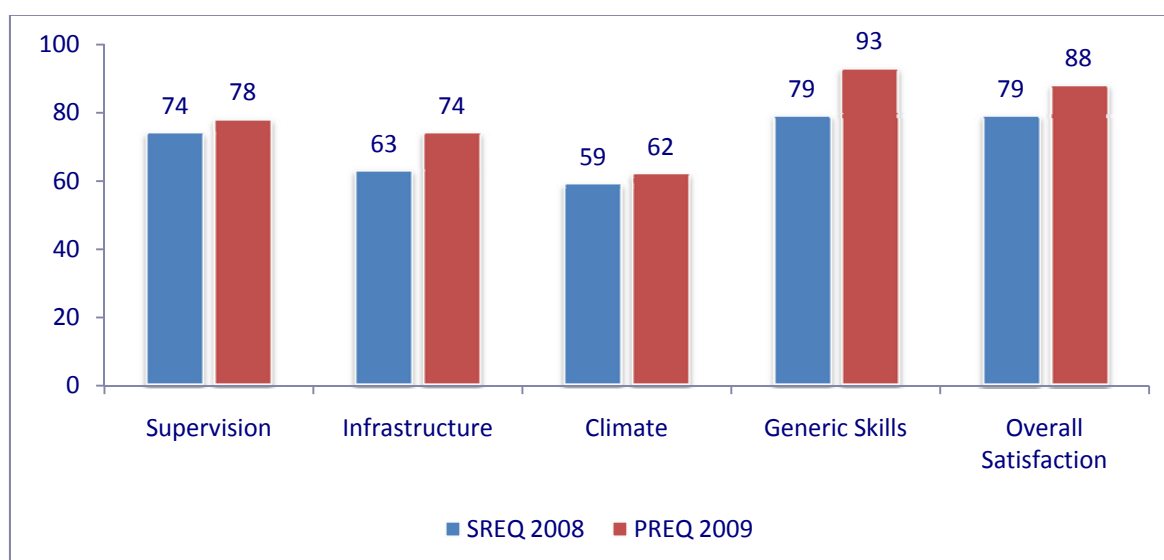
**NB:** Due to the differing lengths of time taken to complete a research higher degree, and the fact that results are reported by year of study, data relating to final year students responding to the 2008 SREQ is not available as a separate entity.

**NB:** Since the SREQ does not include the Thesis Examination Scale, data relating to this aspect of the research higher degree student experience is omitted from this comparison.

### QUANTITATIVE DATA

The following chart compares the 2008 SREQ and 2009 PREQ percentage agreement results (i.e. respondents who either agreed or strongly agreed with the survey items relating to each scale) for the University.

Figure 14: University of Sydney: Comparison percentage agreement: SREQ 2008 and PREQ 2009



As indicated in the above chart, results from the analysis of survey items are higher for graduates than for current students, particularly in the area of Infrastructure, Generic Skills and Overall Satisfaction.

### FOCUS OF WRITTEN OBSERVATIONS

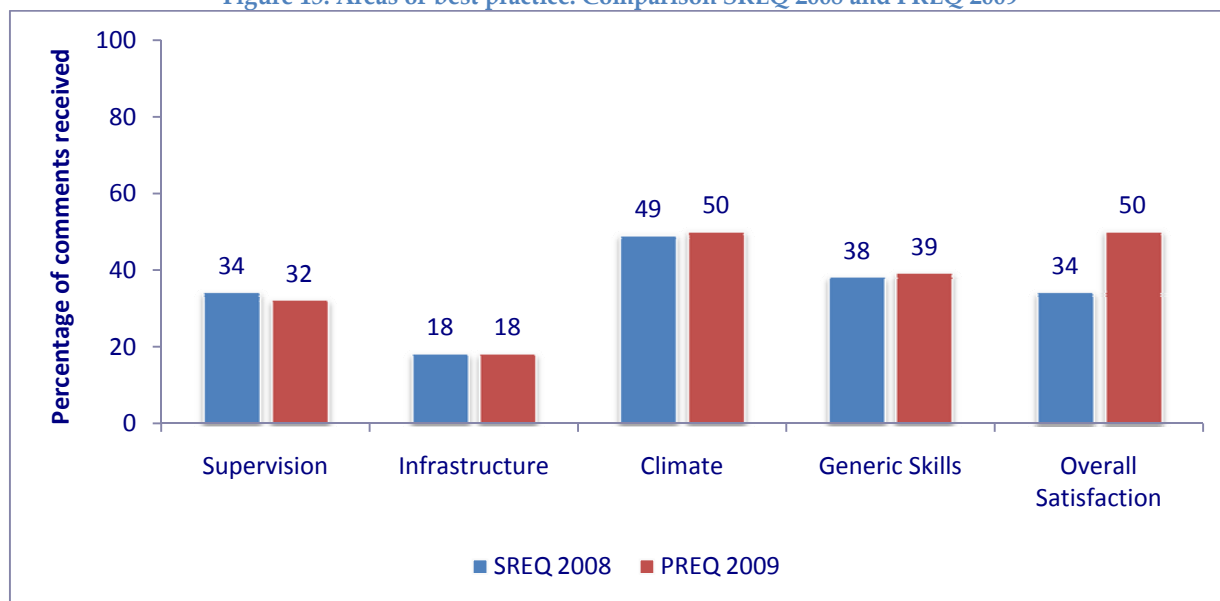
The charts on the following pages provide a comparison between the results of the analysis of qualitative data from the 2008 SREQ (current students) and that from the 2009 PREQ (graduates who were students in 2008). They provide an indication of the importance of areas of best practice (Figure 15) and areas in need of improvement (Figure 16) in the research higher degree student experience.

**NB:** A more detailed breakdown i.e. into sub-categories and components, of the PREQ 2009 data is found in the body of this report, and in "University of Sydney: SREQ 2004 – 2008: Focus of written observations: an overview" for the SREQ 2008 data<sup>4</sup>.

<sup>4</sup> Available at [http://sydney.edu.au/learning/evaluating/docs/sreq/uni\\_rhd\\_sreq\\_summary\\_report\\_2008.pdf](http://sydney.edu.au/learning/evaluating/docs/sreq/uni_rhd_sreq_summary_report_2008.pdf)

### Areas of best practice

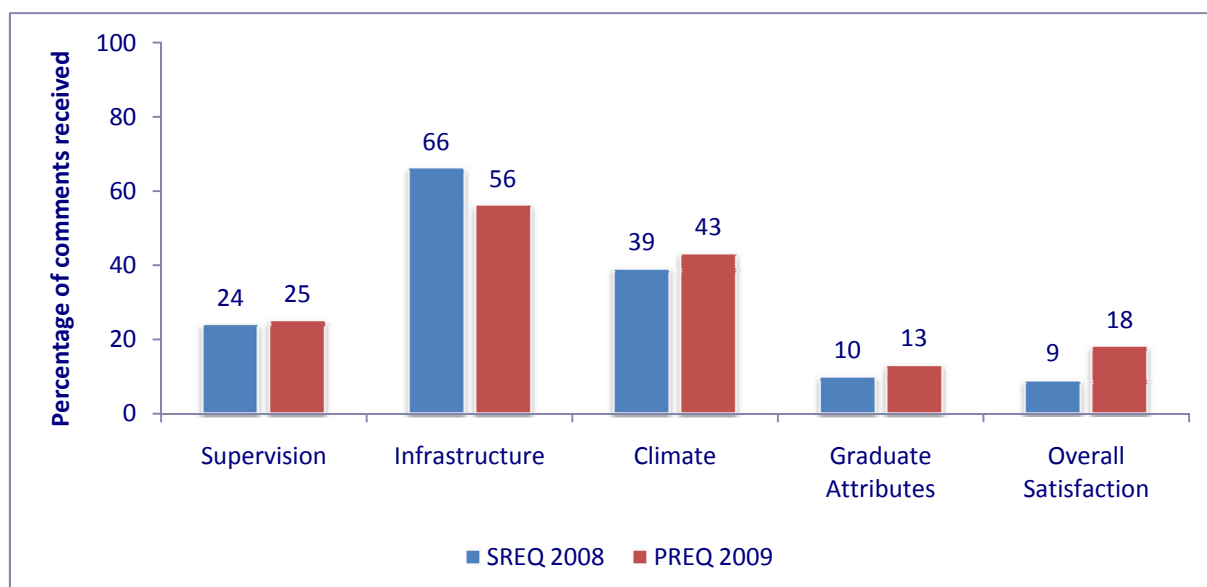
Figure 15: Areas of best practice: Comparison SREQ 2008 and PREQ 2009



As indicated in the above chart, it appears that in all areas except Overall Satisfaction, experiences of current students and graduates are identical. Within each aspect, the focus of written observations is also similar. It should be noted that "Overall Satisfaction" in the PREQ includes the additional sub-category of *Writing and completing* their thesis, or finishing.

### Areas needing improvement

Figure 16: Areas needing improvement: Comparison SREQ 2008 and PREQ 2009



As indicated in the above chart, current students tend to be less satisfied with the infrastructure provided by the university (facilities, funding) than graduates. Experiences relating to Supervision and Graduate Attributes are similar for both current students and graduates, whilst in the area of Climate and Overall Satisfaction more comments suggesting improvements are received from graduates than current students.

## ATTACHMENT THREE: 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:

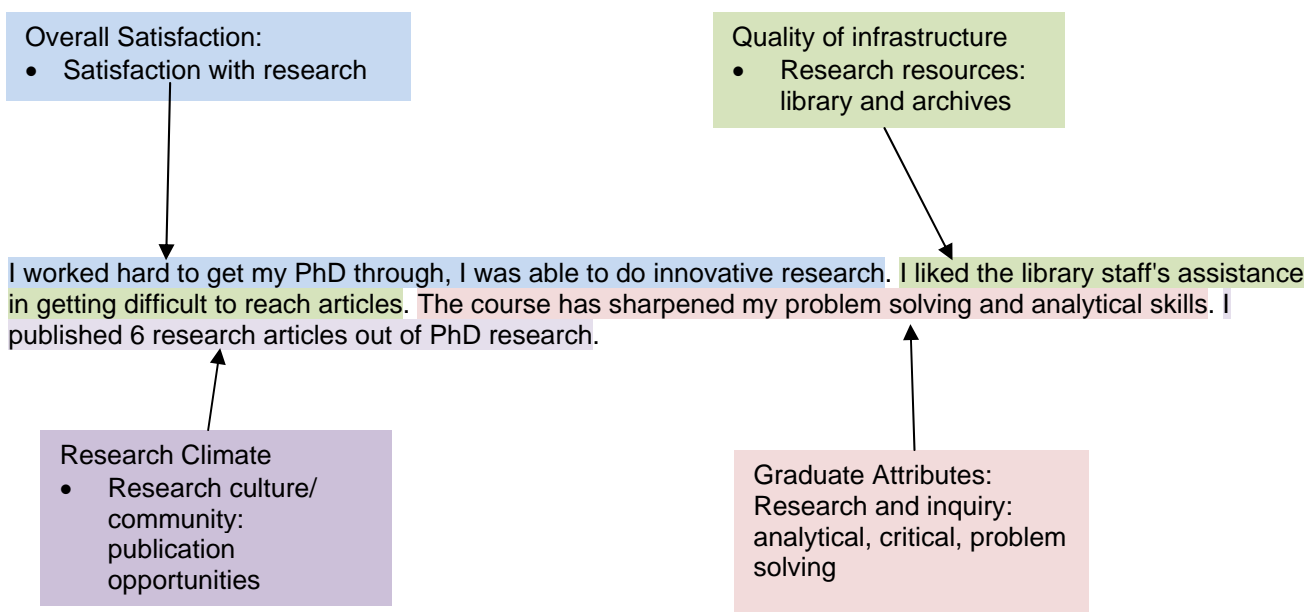
- Characteristics that define the area of the student experience
- PREQ survey items
- recurring themes in graduates' comments and have been developed over many years of analysing qualitative data from graduates' surveys.

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 and PREQ*, which is based on the Factors used in the SREQ and PREQ. 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 Overall Satisfaction (Satisfaction with research); Quality of Infrastructure (Research resources: library and archives); Research Climate (Research culture/ community: publication opportunities); and Graduate Attributes (Research and inquiry: analytical, critical, problem solving) the highlighted phrases within the comment are counted ONCE in each of the relevant categories i.e. 4 aspects in one comment.



## ATTACHMENT FOUR: PREQ SCALES: COVERAGE OF QUANTITATIVE AND QUALITATIVE DATA

The University of Sydney Postgraduate Research Experience Questionnaire (PREQ) survey items have been shown to cluster together to form factor scales: Supervision, Climate, Infrastructure, Generic Skills and Thesis Examination, and the Overall Satisfaction Item. These items, together with recurring themes in graduates' 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 PREQ.

### 1 SUPERVISION SCALE/ QUALITY OF SUPERVISION

#### 1.1 PREQ Survey items

- Supervision was available when I needed it
- My supervisor(s) made a real effort to understand difficulties I faced
- My supervisor(s) provided me with additional information relevant to my topic
- I was given good guidance in topic selection and refinement
- My supervisor(s) provided helpful feedback on my progress
- I received good guidance in my literature search

#### 1.2 Qualitative data analysis

There are 4 sub-categories within *Quality of Supervision*, against which graduates 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 PREQ survey items together with recurring themes in graduates' 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 PREQ Survey items

- I had access to a suitable working space
- I had good access to the technical support I need
- I was able to organise good access to necessary equipment
- I had good access to computing facilities and services
- There was appropriate financial support for research activities

#### 2.2 Qualitative data analysis

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

- Administration (*enrolment and admission; communication between faculty and graduates; general comments on administration (faculty and university); graduation; 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*)

### 3 CLIMATE SCALE/ RESEARCH CLIMATE

#### 3.1 PREQ Survey items

- The department provided opportunities for social contact with other postgraduate graduates
- I was integrated into the department's community
- The department provided opportunities for me to become involved in the broader research culture
- A good seminar program for postgraduate graduates was provided
- The research ambience in the department or faculty stimulated my work

#### 3.2 Qualitative data analysis

There are 7 sub-categories within *Research Climate*, against which graduates 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 PREQ survey items together with recurring themes in graduates' comments.

- Social inclusion (*cultural diversity; equity, discrimination, and harassment*)
- Research culture/ 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/research (e.g. availability of tutoring, lecturing); industry/ government; general comments*)

### 4 GENERIC SKILLS SCALE/ GRADUATE ATTRIBUTES

#### 4.1 PREQ Survey items

- My research further developed my problem-solving skills
- I learned to develop my ideas and present them in my written work
- My research sharpened my analytical skills
- Doing my research developed my ability to plan my own work
- As a result of my research I feel confident about tackling unfamiliar problems

#### 4.2 Qualitative data analysis

There are 5 sub-categories within Graduate Attributes, against which graduates 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 THESIS EXAMINATION SCALE/ PROCESS

### 5.1 PREQ Survey items

- The thesis examination process was fair
- I developed an understanding of the standard of work required
- I understood the required standard for the thesis
- I was satisfied with the examination process
- I understood the requirements of thesis examination
- The examination of my thesis was completed in a reasonable time.

### 5.2 Qualitative data analysis

There are 5 sub-categories within Thesis examination process. The components of these sub-categories are based on the PREQ survey items together with recurring themes in graduates' comments.

- Examiners
- Feedback from examiners
- Marking (*including time taken to examine thesis*)
- Process (*including comments on whole process; individual elements are analysed according to other sub-categories*)
- Standard of thesis (*understanding of*)

## 5 OVERALL SATISFACTION

### 5.1 PREQ Survey item

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, etc; practical components*)
- Pressure to complete (*i.e. within time frame set by APA conditions etc*)
- Satisfaction with research (*topic, contribution to field*)
- Writing and completing (*the process of completing the thesis and submitting for examination; finishing*)
- 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 fellow students (*calibre; education level etc*)