

COLLEGE OF SCIENCE AND TECHNOLOGY
FACULTY OF ENGINEERING
STUDENT RESEARCH EXPERIENCE QUESTIONNAIRE (SREQ)
ANALYSIS OF OPEN RESPONSE COMMENTS 2004

Introduction

The following document provides an analysis of the comments received in answer to the SREQ open response comments from postgraduate research students in the Faculty of Engineering in 2004.

Students were asked to provide comments on the following:

- *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.*

Each comment received was analysed for subject content and categorised into aspects which are closely aligned with the following SREQ Scales and their characteristics:

- *Quality of Supervision*
- *Quality of Infrastructure*
- *Research Climate*
- *Generic Skills*
- *Overall satisfaction*

Comments which included more than one aspect (e.g. quality of supervision and infrastructure) were counted in all aspects mentioned.

Arrangement

1. Analysis of comments referring to the best aspects of the degree course
2. Analysis of comments referring to aspects that could be improved

Responses are ranked according to the percentage of comments received for each aspect. Sample comments have been provided for the aspects that received the most number of comments. Results from the previous years qualitative analysis are provided as a percentage. Only aspects that received 5% or more comments in 2004 are included in this report. To preserve student confidentiality, sample comments are only provided if there are five or more comments relating to that aspect in the responses. Comments which may possibly identify the student are not included in sample comments.

Attachment One: Categories and sub-categories for the analysis of SREQ Open Response comments

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1 June 2005

1 Analysis of comments referring to the best aspects of the degree course¹

Generic attributes (communication, problem solving etc) are being developed (2004: 22%)
(2003: 12%; 2002: 30%)

- The development of lateral thinking and problem-solving skills. It allows me to see the research from a different point of view and hence able to solve problems at hand
- It improved my creative skills, helped me to learn new things and interactive with other students. It also improved my problem solving skills and help me to learn how to organise myself better to help meet new challenges
- Analytical skills gained can be applied to all aspects of life
- It has improved my problem solving skills. It helps me in tackling many unfamiliar problems.

Students appreciate the independent nature of research (2004: 20%)
(2003: 13%; 2002: 14%)

- The ability to work and think independently. The ability to analyse complex problems and master them without supervision, this helps with productivity and confidence in the workplace
- Freedom to explore a variety of areas during my research to satisfy my own personal interests that in turn increases my own productivity
- Independent study – freedom to explore ideas at my own pace
- As a result of my research I have developed the ability to learn and think independently. I think, that is the most important aspect of my research. You think, thus you are

Students are happy with their supervision (2004: 15%)
(2003: 18%; 2002: 11%)

- Getting a very understanding supervisor, Makes me feel comfortable whenever I have a problem or get stuck in my research
- Meeting with my supervisor and co-mentors – they are deeply supportive, challenging and interesting
- Supervisors have been amazingly supportive and they treat myself and others as colleagues
- The encouragement and enthusiasm from the supervisor is awesome. It pushes you to continue when you feel restless and lost in the project

Students are satisfied with their research projects (2004: 13%)
(2003: 23%; 2002: 20%)

- Finally getting your own ideas and the implementation of those ideas out to others, via journal paper, seminar presentation or even a simple demo. Because in the end, what's the point of research if you can't communicate it? The potential prospect of commercialisation for one's research is attractive for obvious reasons
- Doing research work in an environment I enjoy. Why? I like the work and it's stimulating
- The joy of following my curiosity. Creating new ideas and challenges to my intellect
- The topic of my research – it is new and interesting and has enabled me to gain knowledge in a new area of engineering. I enjoy working with my supervisor

Students feel part of a research community (2004: 12%)
(2003: 9%; 2002: 7%)

- Being part of a very helpful and interactive research team/ group
- We have a group to discuss research related issues. Besides, we have a fortnight group meeting, and hence everyone knows the research work done by the others in the group. Moreover everyone is active in exchanging ideas, knowledge and experience
- The working environment is very nice Especially I can easily interact with fellow researchers
- I work in a research group with other academics and research students, so weekly we have group meeting This is the best chance to me to discuss and improve my knowledge

¹ Number of comments received: 2004: 100; 2003: 99; 2002: 56)

Research skills are being developed (2004: 9%)
(2003: 5%; 2002: 9%)

- Very good opportunity to improve my research ability
- It's good that I developed the real research skill which will be useful in the workplace
- Improving my ability as a researcher
- I have further developed my research and problem solving skills

Students appreciate the availability of research resources/ library services (2004: 7%)
(2003: 6%; 2002: 4%)

- The university and the department provide good information resource in terms of computers, internet, emails and the libraries are very helpful. In fact, the libraries and the librarians are the highlight of my candidature so far for the extensive range of information available and the professional services provided.
- Look for relevant information through internet, libraries, industries, journals. Therefore gaining the knowledge of available resources and how to get access for research purposes and understanding the trend
- Excellent facilities like the EMU centre and the library
- Facilities provided by the University are good, such as library, student centre, employment services, scholarship office

Other aspects mentioned included:

- | | | |
|---|------------|----------------------|
| • Interaction with other postgraduate research students | (2004: 6%) | (2003: 4%; 2002: 4%) |
| • Opportunities to present at conferences | (2004: 6%) | (2003: 2%; 2002: 7%) |
| • Seminars/ workshops | (2004: 6%) | (2003: 2%; 2002: 4%) |
| • Opportunities for collaboration & networking | (2004: 5%) | (2003: 9%; 2002: 7%) |
| • Development of technical skills | (2004: 5%) | (2003: 4%; 2002: 2%) |

2 Analysis of comments referring to aspects that could be improved²

Students are unhappy with the physical facilities provided (2004: 22%)
(2003: 15%; 2002: 22%)

- Also my office (the Blue Room at the Civil Eng) gets very cold during the winter because of lack of heating and insulation (gloves are necessary to worm up fingers while touch typing for longer period of time) and very hot during the summer as there is no air-conditioning (we change the name to "Finish sauna" during the summer). In both cases it is very hard to concentrate on the research and the preferred approach is working from at home. I am not the only one with this trouble as I have another 6 fellow colleagues with the same problem in our office. And the sad thing is that nobody does anything for us.?
- Easier access to facilities like printing and even toilets can be improved. There is a printer for the department, but it is in the other building. So after office hours, students, in the research room, have to go downstairs, out of one building, into the other, climb up 3 stories to get a printout. Toilet breaks are the same after office hours, from one building to another. Students had requested for a printer to be set-up in the research room, and were told it was "in the process". That was some time back now.
- The lab equipment. They need to be looked after and be well-maintained. Most of the equipment in the lab are old and not well maintained causing us a lot of inconveniences and wasting a lot of our time to get the experiments done in time..
- The laboratory and equipment is very poor which makes it very difficult to conduct the experiments that I would like to do. The lab conditions also lead to a poor working environment

² Number of comments received: 2004: 88; 2003: 80; 2002: 50)

Students are dissatisfied with their supervision (2004: 20%)
(2003: 13%; 2002: 16%)

- Better quality of supervision. Some control on supervisors so they are not automatic and authoritative. Accountability on supervisors for delays.
- Unfortunately there weren't many people in my department that really understood what I did. Maybe in the future supervisors shouldn't take postgraduate students on areas that they aren't confident supervising/ guiding the student
- There is a lack of young, ambitious, energetic academic staff to act as supervisors in all research areas.
- Supervisors seem to be competing with their students for attention and reason being they're a decade older (unlike those good old days) - selection of proper researchers (psychologically stable) will be a good move by the Univ. & the ARC to counter problems of this kind.

Students are unhappy with some aspects of financial support (2004: 17%)
(2003: 15%; 2002: 8%)

- Better distribution of finances amongst the different departments based on the projects being undertaken and their potential benefits for the University as far as outside acknowledgement is concerned.
- I feel that scholarships supported to postgraduate students are not sufficient. In my case, I have applied for scholarships for a few times but the responses from Scholarship office saying that the faculty and committees decided to not giving me any scholarship. I am not sure who made the decision on the scholarship, faculty or scholarship office.
- Research support funds. For example, the international conference support, I heard that the school will support once until finish the degree, but I think it should be one a year.
- Funding has been cut for areas where we are world leaders

Students would appreciate opportunities to present at conferences (2004:9%)
(2003: 6%; 2002: 2%)

- A better economic support for attending conferences. Sometimes we think twice before submitting a paper to a conference because we know there will be no money to attend it
- I have written a number of papers submitted to overseas conference and won the prize in research competition, but did not receive any support from the faculty.
- A greater number of scholarships to attend and present at overseas and interstate conferences
- Financial support is very bad. To get some money is very difficult. Even the support for travelling overseas to attend conferences is low. I may get max \$ 2000 at the end of the year to be able to pay back at least a bit of my \$ 4500 conference-related expenses.

Students feel isolated from fellow postgraduate research students (2004: 8%)
(2003: 9%; 2002: 18%)

- Interaction between research students from different departments, even different schools.
- The research student atmosphere is wanting. There is no real opportunity to meet fellow researchers
- The atmosphere in the department has changed since the pressure to finish "on time" has increased. Students are more self-centred and less willing to help others or the department because they focus on their work only and completing on time. Instead of students working together and helping each other, they compete
- I have note seen much of postgraduate events organised by the Union which would have helped us in meeting more postgraduate and sharing our views.

Other aspects mentioned included:

- Faculty/ University administration/ organisation (2004: 5%) (2003: 10%; 2002: 4%)
- Development of graduate attributes (2004: 5%) (2003: 3%; 2002: 3%)

Attachment One Categories and Sub categories used in analysis of SREQ open response comments³

Category	Sub category	Includes
Quality of Supervision	Supervision	Supervisor Supervision in general, including processes in place for feedback regarding satisfaction/dissatisfaction with supervisor
	Management of candidature	Guidance on management of candidature; steps in the process
	Progress reports	Progress reports/ processes in place Value of the reporting process Structure of reporting process
	Flexibility of program	Compared to undergraduate/ postgraduate coursework Working hours etc
	Pressure to complete	Pressure to complete on time (i.e. within time frame set by APA). Workload
	Feedback from supervisor	Feedback on drafts, papers, presentations, seminars; final thesis
Quality of Infrastructure	Funding/ Scholarships	APA, UPA and other scholarships; PRSS Funding for research within faculty/ department etc
	Physical resources	Physical facilities available to postgraduate research students including workplace, computers – provided by University/ Faculty Building maintenance
	Industry facilities	Physical facilities provided by industry partner/ CRC etc
	IT support	Support available for computer hardware and software
	Research resources/ library	Electronic resources such as databases, online journals Interlibrary loan for hard-copy resources Services provided by library
	Technical and Lab support	Support available in laboratories; technician availability for experiments etc
	Resource issues	Issues which affect experience e.g. staffing and funding within department which may reduce face to face time with supervisor, or lack of supervisor due to retirement etc
Overall satisfaction	Satisfaction with research	Comments on research projects; benefits of research etc
	General comments	With university, location, etc

³ NB: Not all categories appear in responses for individual faculties.

Category	Sub category	Includes
Research climate	Challenging and stimulating	Is the research stimulating, challenging Do they feel motivated by supervisor etc
	Induction/ orientation program	Induction/ orientation program for new students, particularly those who start mid year or who come from another university
	Cultural diversity	Part of a culturally diverse student group
	Isolation: off main campus	Issues relating to students situated off main campus/ at training hospitals
	Interaction with other postgraduate research students	Opportunities to interact with other postgraduate research students Feelings of isolation from other students
	Collaboration and networking	Provision of opportunities to collaborate and network with other researchers, academics etc (university, national, international)
	Conference presentations	Opportunities to present at international and national conferences
	Research community	Part of research community/ culture within faculty/ school/ department Part of research community outside university
	Part of faculty/ school/ department	Acceptance by faculty/ department/ school Inclusion in meetings, social events etc Part of communication cycle
	Support of faculty/ school/ department	Support of faculty/ department/ school for their research etc
	Seminars, workshops	Presence of, frequency of seminar or workshop program for postgraduate research students Cross faculty involvement in seminars
	Field work, practical aspects	Field work – help with collecting data etc Practical aspects e.g. in hospitals
	Interaction with industry	Industry partnerships Support from industry in research
	Teaching opportunities/ preparation for academia	Teaching and/or tutoring opportunities offered/ available
	Location/ physical environment	Does not include buildings – location of campus, university etc
	Relevance to future/ current work/ career	Will the research be useful in the future to their careers Is it useful in their present work environment
	Support for part-time/ distance education/ external students	Support for students studying externally or part-time; recognition of difficulties faced/ access to resources etc
International student experiences	Experiences, support for international students	
Coursework component	Issues relating to coursework component of some research degrees e.g. Research Methods	

Category	Sub category	Includes
Generic skills	Graduate attributes, skills	Development of Graduate attributes e.g. communication, analytical, problem-solving skills
	Technical skills	Development of technical skills e.g. statistical skills, thesis/ academic writing, subject specific skills; use of laboratory equipment
	Research skills	Training in research methods; Development of research skills
	Expand knowledge base	Acquisition of new knowledge
	Work independently	Ability to work independently on project compared to structured work of undergraduate degree
	English language for NESB students	Development of English language proficiency Help in academic writing Specific support e.g. proof reading of thesis etc
Administration and organisation	Administration and organisation	Administration and organisation of research higher degree program
	Communication	Between administration and faculty; between support services; between staff and students
	Enrolment	Enrolment process
Other	Ethics administration	
	Equity	Harassment, discrimination etc
	Academic Board policies	Academic Honesty; Intellectual Property