Identifying Graduate Research Student Satisfaction

Faculty of Engineering

Monash University 2024

The Monash Graduate Association would like to thank all those who assisted in the production and distribution of this survey. We would also like to thank the graduate students who completed the survey.

This report was produced by Dr Ryan Edwards. Should you have any questions in regard to the paper, please contact Ryan.Edwards@monash.edu for further information.

Table of Contents

Executive summary

In April and May 2024, the Monash Graduate Association (MGA) conducted a survey of graduate students at Monash and nine other Australian universities. Similar surveys were conducted in 2017 and 2021, which have allowed for some comparisons throughout this report.

The main findings as they relate to graduate research students enrolled in the Faculty of Engineering are summarised below:

Engineering graduate researchers are overwhelmingly positive in relation to their supervision experience

The sentiment of Engineering respondents in relation to supervision was overwhelmingly positive.

The University's recommended meeting frequency was met in almost every case with 98% of full-time graduate researchers meeting with their supervisor weekly or fortnightly, while 100% of part-time Engineering respondents met once a month or more frequently.

Supervisors were largely meeting the expectations and needs of their students. Having their research supported by skilled supervisors and receiving timely and constructive feedback were the most important aspect of supervision according to Engineering respondents. Skilled supervision also ranked first for satisfaction.

Career pathway support (-5.61%) was the area where the gap between importance and satisfaction was widest.

Student satisfaction with their academic unit high

Across the board, Engineering graduate researchers were predominantly satisfied with the department or school in which they were enrolled.

The most common response as to the most satisfying aspect of their academic unit related to the culture, while the most common dissatisfying aspects was in relation to unsupportive and hostile individuals.

Confirmation process is largely satisfactory

Respondents were widely satisfied their confirmation experience. In particular, they were satisfied that the behaviour and tone of the panel was professional.

Receiving feedback was the most useful aspect of the experience, according to Engineering respondents, while the administration of the milestone was the least useful aspect.

Professional Development opportunities

Having Professional Development (PD) opportunities that focus on publishing skills and data analysis techniques was of the utmost importance to Engineering graduate researchers, while experiencing PD with students from other fields was the least important of the themes.

Respondents were most satisfied with PD on research methodologies and least satisfied with industry exposure and career planning. The widest gaps between importance and satisfaction were recorded in relation to industry exposure and career planning.

In terms of additions to existing PD, opportunities to industry pathways was prevalent.

Decrease in number of graduate researchers working for the University, but respondents mostly satisfied with pay

The likelihood of an Engineering graduate researcher at Monash being given an opportunity to conduct paid work for the faculty or university decreased from 66% in 2021 to 56% in 2024. It was on par with the figure recorded across STEM at Monash.

The majority of Engineering respondents (58%) believed that they were paid appropriately for the work they did for the University.

Doubts, delays and drop outs

The majority of Engineering graduate researchers have, at some point, experienced imposter syndrome with 3% indicating that they experienced this feeling “often.”

Just over one-third of Engineering graduate researchers had never experienced a delay in their research, while 15% indicated that they often experienced delays.

A lack of motivation was the most common response for a delay in research among Engineering graduate research students.

Engineering graduate researchers were less likely than their colleague across STEM and far less likely than engineering students at other universities to have considered leaving their degree.

The most common reasons for considering leaving were a lack of motivation, mental health and financial issues.

The most common responses for continuing with their degree was support from supervisors and staff.

MGA engagement and satisfaction better among international students

International students were more likely to have engaged with the MGA; however, satisfaction with the Association was relatively consistent across the demographic groups.

Introduction

The Monash Graduate Association (MGA) ran a survey of graduate students in April and May 2024 across nine Australian universities. In relation to graduate research students, the aim of the MGA's *National Postgraduate Student Satisfaction Survey* was to better understand their degree experience.

This report explores many of the pillars of a research degree, including supervision, the academic unit, confirmation and professional development. It also looks into some common associated experiences, including paid employment opportunities, imposter syndrome, research delays and thoughts of dropping out. Finally, the report highlights the engagement and satisfaction of Monash graduate research students with the Monash Graduate Association (MGA) and includes suggestions for how the MGA could better support the University's students.

This report provides data and findings specifically for respondents enrolled at in the Faculty of Engineering at Monash University. In Engineering, a total of 101 graduate research students participated in the survey (see *Appendix 1: Demographics*), which we estimate to be approximately 20% of enrolled graduate research students at the Faculty.

The survey was advertised in the MGA newsletter, on the MGA website, through MGA social media channels and through contacts with Monash faculty groups and associate deans, many of whom agreed to forward the advertising of the survey to their students. Participants were self-selecting, so an incentive scheme (comprising the opportunity to win one of 100 gift cards worth $50 in value) was used to assist in attracting a representative sample.

With the support of colleagues at student associations across Australia, this survey was offered to postgraduate students at nine other universities. Respondents from the University of Queensland, Griffith University, Queensland University of Technology, Southern Cross University, University of Sydney, University of New South Wales, University of Technology Sydney, Victoria University and Federation University are all represented in this survey. A total of 21 graduate research students in the field of engineering completed the survey across these universities.

Where appropriate, comparisons between Monash and non-Monash respondents have been made.

This research has been approved by the Monash University Human Research Ethics Committee (Project ID: 41520).

Limitations

While this report provides valuable insight into graduate research student satisfaction, it is important to acknowledge certain limitations that may impact the interpretation of results. Two such limitations are outlined below.

Over- and under-representation of demographic groups

When considering results, it is important to acknowledge that the response rate is not consistent across demographic groups.

For example, domestic enrolments accounted for approximately 21% of total graduate research enrolments in the Faculty in 2024. In this survey, domestic students accounted for 10% of total responses at Monash. As a result, international students are over-represented and domestic students are under-represented.

Positive-negative asymmetry (PNA) effect

Across the entire report, the responses of students have been taken at face-value. As such, it is important to reflect on the positive-negative asymmetry (PNA) effect. The PNA effect is two-part: firstly, it incorporates the positivity bias, which refers to an individual's inclination towards favourable perceptions of phenomena that are novel or do not directly impact them,[1] and, secondly, it incorporates the negativity bias which, in part, relates to how individuals are more curious about negative than positive stimuli and therefore are more mobilised by negative events.[2] In the context of this report, this may mean that answers to the quantitative questions in the survey are disproportionately positive, while the responses to the qualitative (open-ended) questions are disproportionately negative, given that students were not required to provide a response.

In relation to the qualitative questions in this survey, effort was made to overcome the PNA effect by splitting questions and asking for a positive and negative reflection.

[1] Maria Lewicka, Janusz Czapinski and Guido Peeters, "Positive-negative asymmetry or 'When the heart needs a reason'," *European Journal of Social Psychology* 22 (1992): 426.
[2] Reanna M. Poncheri, Jennifer T. Lindberg, Lori Foster Thompson and Eric A. Surface, "A comment on employee surveys: negativity bias in open-ended responses," *Organizational Research Methods* 11, no. 3 (2008): 615-16.

Supervision

Respondents were asked a series of questions in relation to their supervision experience.

Choice of supervisor

Did you choose your supervisor?	Engineering 2021	Engineering 2024	Monash STEM 2024	Other Eng 2024
Yes	96%	91%	89%	86%
No	4%	9%	11%	14%

The proportion of Engineering PhD candidates choosing their own supervisors dropped over the past 3 years.

However, the result in Engineering was marginally ahead of that recorded across STEM at Monash.

Previous studies have identified that doctoral students who choose their own supervisor are more likely to complete their degree than those assigned a supervisor.[3]

Choice of topic

Did you choose your own topic?	Engineering 2021	Engineering 2024	Monash STEM 2024	Other Eng 2024
Yes	71%	75%	72%	91%
No	29%	25%	28%	10%

Between 2021 and 2024, there was an increase in the proportion of Engineering respondents choosing their own research topic.

Engineering respondents were marginally more likely that their STEM colleagues at Monash, but less likely than those outside of Monash to be choosing their own topic.

[3] Karen Hunter and Kay Devine, "Doctoral student's emotional exhaustion and intentions to leave academia," *International Journal of Doctoral Studies* 11 (2016): 40.

Contact with supervisors

Participants were asked, on average, how often they meet with their supervisors?

How often do you meet with your supervisor?	Engineering 2024	Monash STEM 2024	Other Eng 2024
Weekly	66%	57%	76%
Fortnightly	29%	35%	10%
Once every 3 weeks	2%	4%	10%
Once a month	2%	3%	5%
Less than once a month	1%	2%	0%

The majority of Engineering graduate research respondents met with their supervisors on a weekly or fortnightly basis.

The Monash University *Graduate Research Student Supervision Procedure* recommends full-time graduate researchers meet with their main supervisor at least every two weeks, while part-time students should meet monthly.

Of full-time Engineering respondents, 98% met with their supervisor weekly or fortnightly, while 100% of part-time Engineering respondents met once a month or more frequently.

Those who met their supervisors once a month or less were asked to respond to the question ***Why don't you meet more frequently with your supervisors?***

Comments included:

> *"Because we are not in the same place."*
>
> *"I regularly discuss research with my supervisor via text messaging."*
>
> *"They are busy and I am on track."*

Supervision: Importance and Satisfaction

Participants were asked to rate how important certain aspects of supervision were and how satisfied they were with their own experience. For the purposes of analysis, this 7-point *LIKERT*-scale has been converted to a numerical value and averaged across graduate research respondents.

The gap was calculated as below:

$$\text{Gap} = (\text{Satisfaction} - \text{Importance}) \div \text{Importance (\%)}$$

In regard to satisfaction, respondents were asked to consider their supervision experience overall or as a collective, rather than their experience with individual supervisors.

	Importance (1-7)	Satisfaction (1-7)	Gap (%)
Skilled supervisors	6.51	6.28	-3.53%
Timely feedback	6.39	6.05	-5.32%
Constructive feedback	6.36	6.04	-5.03%
Access to supervisors	6.33	6.25	-1.26%
I am heard	6.32	5.99	-5.22%
Guide me through the degree	6.30	6.04	-4.13%
Act professionally	6.27	6.28	0.16%
Mentor me	6.24	6.01	-3.69%
Encourage ownership	6.15	6.19	0.65%
Support for work/life balance	6.15	6.10	-0.81%
Help me belong academically	6.11	5.85	-4.26%
Career pathway	6.06	5.72	-5.61%
Help me network	6.05	5.72	-5.45%
Clear role delegation	5.88	5.92	0.68%
Inform me of support services	5.85	5.88	0.51%
I am a priority	5.82	5.90	1.37%
	6.17	6.01	-2.56%

Having their research supported by skilled supervisors as well as receiving timely and constructive feedback were the most important aspect of supervision according to Engineering respondents. Skilled supervision also ranked equal first for satisfaction, alongside supervisors acting professionally.

The widest gap between importance and satisfaction was recorded in relation to career pathway support.

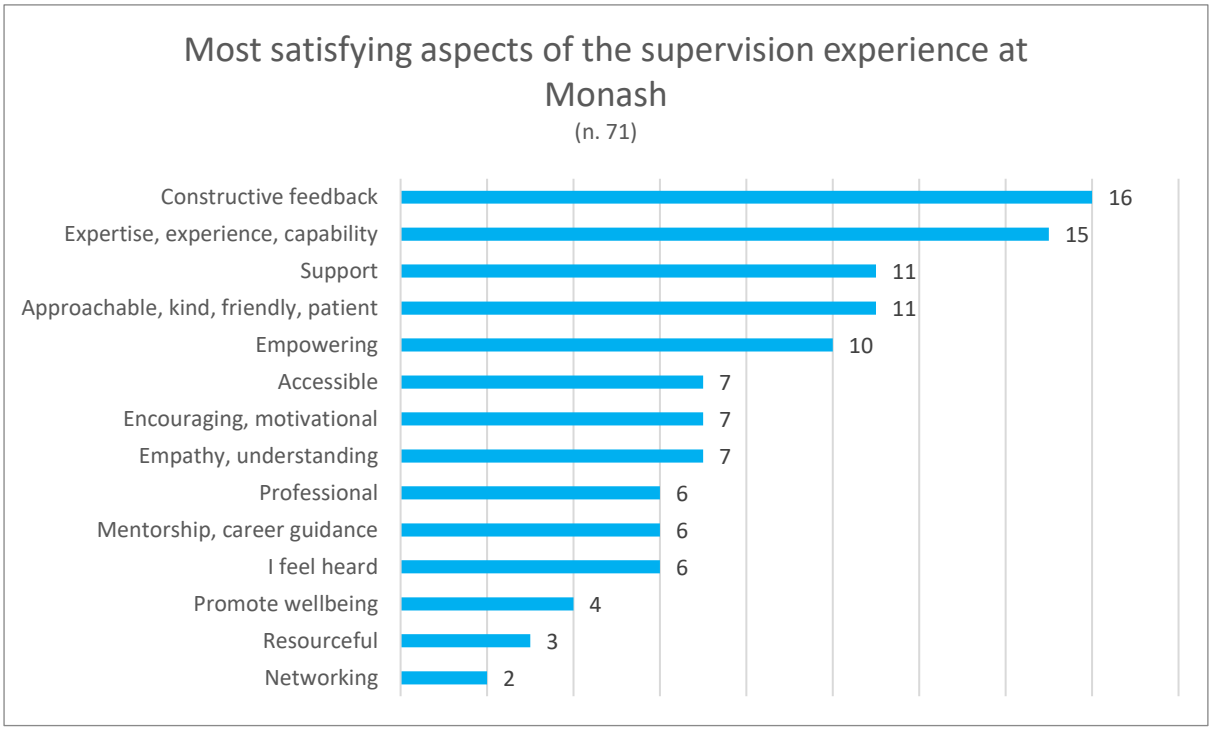
The supervision experience

Participants were asked to reflect on what aspects of their supervision experience they found most satisfying and what aspects they found most dissatisfying.

Most satisfying aspects of supervision

In order to gain further insight into what graduate research students most value in their supervisors, participants were asked to *Tell us about what aspects are most satisfying about your supervision experience*.

Below is a summary of the responses from Engineering:



The primary theme to emerge from the responses related to the **constructive feedback** they received from their supervisors. Comments included:

> *"My main supervisor was very thorough with my milestone reports, highlighting important points and correcting whenever I made a mistake. Supervisor always gives me constructive feedback."*
>
> *"He attends our fortnightly sessions regularly and answers my questions very well. He also replies to my question in emails. His advice is really constructive."*
>
> *"Supervision has been very constructive and professional. I am supervised in a timely manner and issues occurring time to time are also heard. The advices from my supervisors are always positive and directs me in the right path."*

Other interesting comments included:

"His industrial experiences inspire me to focus on my research work. He gives me positive feedback and motivates me to work on my research work."

"Building a strong relationship with supervisors where they understand what I want from the degree, and provide needed feedback, support and advice that works well with my personality type. It's really great to have reliable asynchronous ways to leave a message for the supervisor that they can action when their schedule allows."

"My supervisor's expertise in the topic is good and he also has a variety of other experiences that help me in the project. He is also willing to try new ideas and allow me to develop as an independent researcher."

"My supervisor takes the time to solve my questions about the project and act as a guide, rather than imposing the ideas. Gives me freedom to work and manage the time to have a good balance between on and off-campus life."

"My supervisor is very supportive and enthusiasm to support me during my research!"

"Listens well, instructs well, and cares. My supervisor was exceptionally patient in listening and communicating, providing highly targeted and effective guidance, and they genuinely cared about my well-being [and] about my life."

"She always encourages me to try new research, and advises me to keep balance my work and life. she is like a friend and mentor to me."

"A satisfying supervision experience is rooted in fostering growth and seeing tangible progress in those I mentor. Witnessing individuals develop their skills, confidence, and autonomy through guidance and support is immensely fulfilling. Additionally, the opportunity to build meaningful connections and contribute positively to their personal and professional journeys adds depth and significance to the role of a supervisor."

"He is really hardworking and professional, so he is a good role model for me. He offered me many suggestions on my research plan and advised me that I should have a clear long-term life plan."

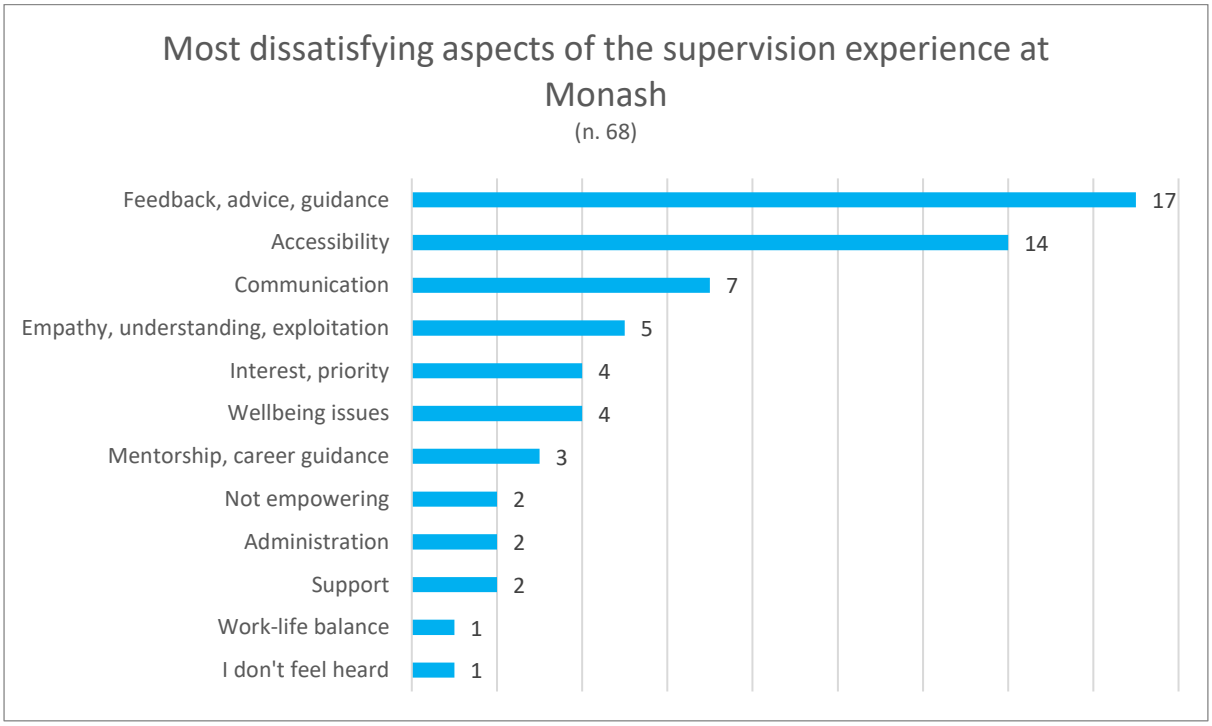
"My supervisors respect that sometimes life gets in the way, and I cannot be switched on 24/7 and some weeks will be more productive than others. They are always listening to me and helping me stay on track."

"My supervisor takes the time to solve my questions about the project and act as a guide, rather than imposing the ideas. Gives me freedom to work and manage the time to have a good balance between on and off-campus life."

Most dissatisfying aspects of supervision

In order to gain insight into what traits graduate research students find most problematic about their supervisors, participants were asked to *tell us about what aspects are most dissatisfying about your supervision experience*.

Below is a summary of responses from Engineering:



The most common frustration with supervisors related to **feedback, advice and guidance**. Comments included:

> *"They don't have the exact expertise in what I'm doing. which was initially hard. But it was my decision to do this knowing that it's a new expertise and still they provided me with the resources to overcome this."*
>
> *"One of them is too critical and does not keen to listen (although he is extremely good at the field) while the other is always optimistic when giving feedback."*
>
> *"No in-depth professional expertise guidance; non-constructive criticism; no career guidance."*
>
> *"Perhaps too much freedom and not enough pressure and support."*
>
> *"They are not involved in the project even though they defined the project. They do not have any clear understanding and expectation of the project. They ignore responding to my emails sometimes and this gives me the sense of being ignored."*
>
> *"Supervisors does not have clarity about the research. Keep changing the goal post. Do not appreciate the obtained result. Sometimes behave impatiently."*

Other interesting comments included:

“He doesn’t know about my research and he has no idea what I am doing.”

“Supervisors availability can sometimes be an issue.”

“Not being able to access supervisors or resources when needed (not a current issue) and having areas of the research that supervisors cannot support as it is new to them.”

“When my supervisor is busy with semester teachings and administrative work, my research will be less priority and I will receive delayed feedback. I think the supervisor also lacks in asking us about our wellbeing and how we are actually doing rather than discussing on the work itself.”

“As of now, he's lacking in funds for some experiments as there are no active grant with him. Sometimes, there is slight miscommunication.”

“I would really like them to connect me with people who can be helpful for my career after my Ph.D.”

“My academic supervisor is not really engaged in what I am doing and doesn’t really communicate until just before deadlines.”

“Weekly meeting is a little bit stressful.”

“The most dissatisfying aspects of my supervision experience include dealing with conflicts among team members, addressing performance issues, and navigating challenging interpersonal dynamics. It can be frustrating when expectations are not met, and it requires significant time and effort to address these issues while maintaining a positive work environment.”

Conflict with supervisor

Have you ever had a disagreement with a supervisor that was challenging to overcome?	Engineering 2017*	Engineering 2021*	Engineering 2024	Monash STEM 2024	Other Eng 2024
No, I've never had a serious disagreement with a supervisor	*(no) 88%*	*(no) 88%*	74%	70%	63%
Yes, but it was only minor	*(yes) 12%*	*(yes) 12%*	22%	23%	32%
Yes, I have had a serious disagreement			4%	7%	5%

*Please note that in 2017 and 2021 this was a "yes" or "no" question and "conflict or misunderstanding" was used in place of "disagreement."

Respondents from Engineering were marginally less likely to have had a disagreement with a supervisor than their STEM colleagues and those studying engineering at other universities.

Type of conflict

Respondents who had experienced a disagreement with a supervisor ("minor" or "serious") were asked to describe this disagreement.

Below is a selection of responses from Engineering:

> *"My industry supervisor wanted to change the topic of my PhD without communicating this with any of my other supervisors or the team. As I am approaching my confirmation, I was thrown and it took a lot of mitigation to bring us back on track. Unfortunately it means that my trust for his opinion has greatly decreased."*
>
> *"Just different approaches and ideas."*
>
> *"It was about submitting the paper and what is the best journal that I can submit my paper."*
>
> *"He doesn't allow me to publish my paper."*
>
> *"Some expectations set were unrealistic, and is time sensitive. Sometimes, students know best of their own project direction and could better gauge expectations or potential outputs."*
>
> *"We often have issues on choosing the way to proceed to achieve the milestones for example, project direction or publication focus."*
>
> *"The disagreements are with respect to evaluation of which work will add quality to my thesis. Their personal preferences hinder my research plan. They discouraged me because of biases and prejudices with experimental techniques and group of researchers."*
>
> *"My academic supervisor offered me some sessional teaching, but has not appreciated how much time this has taken out of my study. I also find that he does not treat me professionally in front of the undergraduate students."*

Dealing with conflict

Respondents who had experienced a form of conflict were asked to select if they had dealt with it and, if so, the ways in which they had dealt with it.

How did you deal with this "disagreement"?	Engineering 2017*	Engineering 2021*	Engineering 2024	Monash STEM 2024	Other Eng 2024
Decided to do nothing	60%	64%	26%	7%	0%
Sorted it out directly with supervisor(s)	0%	21%	61%	72%	86%
Sought assistance from a friend/colleague	20%	7%	22%	43%	57%
Sought assistance from student association	40%	7%	0%	7%	14%
Sought assistance from my chair	NA	NA	0%	0%	14%
Sought assistance from grad. coordinator or head of school	20%	7%	4%	14%	29%
Other	NA	0%	9%	14%	0%

* Please note, when we asked this question in 2017 and 2021, "conflict" was used in place of "disagreement" i.e. *How did you deal with the conflict?*

The proportion of respondents from Engineering who decided to do nothing decreased substantially from 2021 and 2017 levels.

The majority of respondents felt comfortable enough to directly sort out their disagreement with their supervisors.

Changing supervisors

Participants were asked a series of questions relating to changing supervisors.

Considered changing supervisors

Have you thought about changing supervisors?	Engineering 2024	Monash STEM 2024	Other Eng 2024
Never	81%	75%	63%
Rarely	15%	17%	21%
Often	4%	6%	11%
All the time	0%	2%	5%

Engineering respondents were slightly less likely than those from across STEM faculties at Monash and those studying engineering elsewhere to have considered changing their supervisors.

Supervisor changes

Have you ever changed supervisors?	Engineering 2024	Monash STEM 2024	Other Eng 2024
No	89%	86%	74%
Yes, but it wasn't my choice	8%	7%	5%
Yes, my supervisor and I agreed to make a change	2%	5%	32%
Yes, I decided to change a supervisor(s) even though they did not want to be replaced	0%	1%	5%
Other	2%	4%	0%

Engineering respondents were marginally less likely than those across STEM at Monash to have changed supervisors.

Why students did not change supervisors

Respondents who had not changed supervisors, but who had considered it, were asked what stopped them from changing supervisors.

Comments of note from Engineering included:

> *"My main supervisor disagreed the request while I think it was necessary for me because I am working on my PhD alone."*
>
> *"Supervisor started to engage more in my research and give constructive feedback."*
>
> *"I had built a strong relationship with my supervisors and overall they're really quite great, so there was no need to look elsewhere."*
>
> *"There were no other available supervisors which have the relevant expertise."*
>
> *"The decision not to change supervisors was influenced by several factors. First, I had developed a strong rapport and understanding with my current supervisor, which facilitated effective communication and support. Additionally, my supervisor demonstrated a commitment to my professional growth and provided valuable guidance that aligned with my career goals, making the prospect of changing supervisors less appealing."*

Comments on the process of changing supervisors

Respondents who had changed supervisors were asked to comment on the process of changing supervisors.

The responses from Engineering included:

> *"It was a smooth process without any hassle."*
>
> *"The change was made so I can have more better co-supervisors, who are exactly experts in my research topic."*

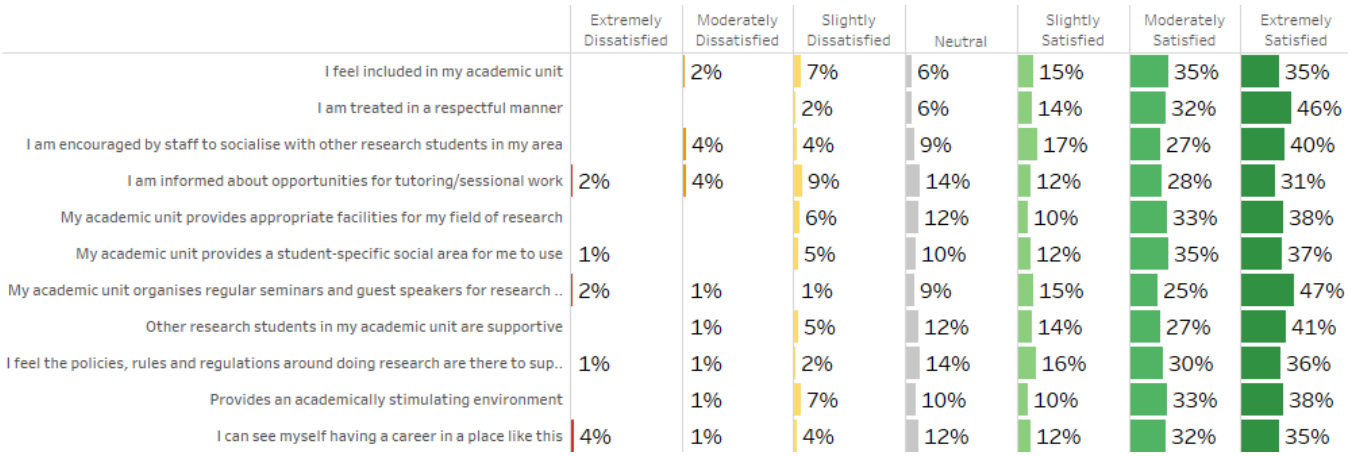
Academic Unit

The following questions were asked in relation to the faculty, department or school in which a student was enrolled.

Academic unit satisfaction

Participants were asked how satisfied they were with their academic unit across a range of areas.

The results of Engineering graduate researchers are presented below:



	Extremely Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Neutral	Slightly Satisfied	Moderately Satisfied	Extremely Satisfied
I feel included in my academic unit		2%	7%	6%	15%	35%	35%
I am treated in a respectful manner			2%	6%	14%	32%	46%
I am encouraged by staff to socialise with other research students in my area		4%	4%	9%	17%	27%	40%
I am informed about opportunities for tutoring/sessional work	2%	4%	9%	14%	12%	28%	31%
My academic unit provides appropriate facilities for my field of research			6%	12%	10%	33%	38%
My academic unit provides a student-specific social area for me to use	1%		5%	10%	12%	35%	37%
My academic unit organises regular seminars and guest speakers for research ..	2%	1%	1%	9%	15%	25%	47%
Other research students in my academic unit are supportive		1%	5%	12%	14%	27%	41%
I feel the policies, rules and regulations around doing research are there to sup..	1%	1%	2%	14%	16%	30%	36%
Provides an academically stimulating environment		1%	7%	10%	10%	33%	38%
I can see myself having a career in a place like this	4%	1%	4%	12%	12%	32%	35%

Across the board, Engineering graduate researchers were predominantly satisfied with their academic unit.

Satisfaction was highest in relation to being treated in a respectful manner (92%), while dissatisfaction was highest in relation to respondents being informed tutorial/sessional work opportunities (14%).

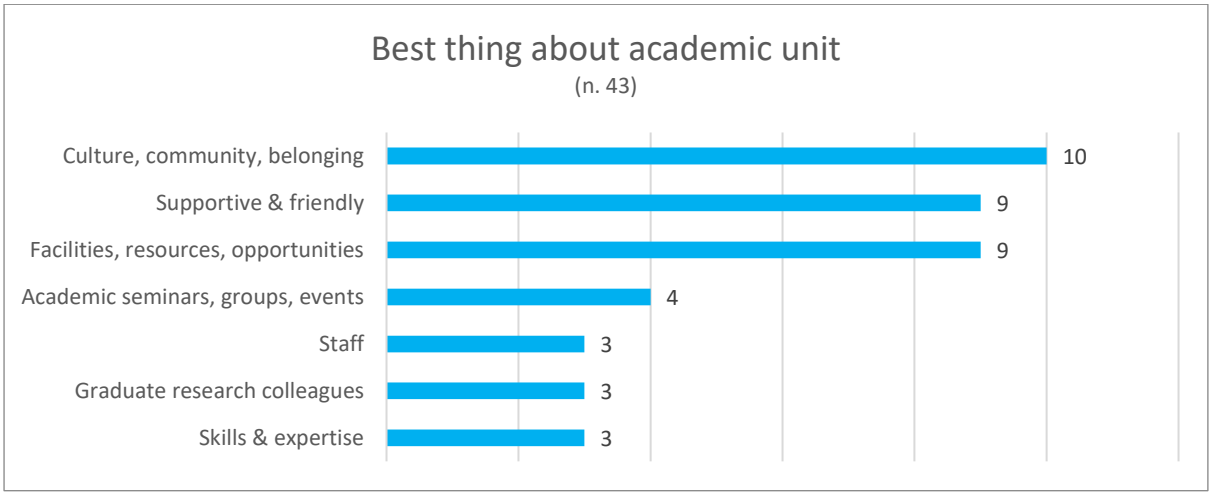
Academic unit comments

Respondents were asked to reflect on what aspects of their supervision experience they found most satisfying and what aspects they found most dissatisfying.

Best aspects of academic unit

Participants were asked to comment on what they thought was the best thing about their academic unit.

The responses of Engineering graduate researchers are summarised below:



The most common response related to the **culture** of the academic unit. These included:

> *"Department is very tight-knit and very friendly. I have established many great friendships with people within my academic unit."*
>
> *"There is not a lot of admin issues or red tape. They regularly arrange lectures and visits from external experts."*
>
> *"People are really friendly and supportive and willing to help each other."*
>
> *"I feel included and the place motivates me to work. The work environment is pleasant and I have enough space at my desk."*
>
> *"The community and bonding with other research colleagues."*
>
> *"The best thing about my academic unit is the strong sense of community and collaboration among faculty and students. We have a supportive environment where ideas are shared openly, and there's a genuine commitment to academic excellence and personal growth. The interdisciplinary nature of our unit also fosters innovative thinking and encourages diverse perspectives."*

"The Suzhou campus provides us with an excellent environment where we can focus on our own research. In research and learning, we always receive support and assistance from schools."

"Everyone knows each other, and staff and students work together collaboratively regardless of what they are studying. People are very supportive and welcoming (Materials science and engineering)."

Other interesting comments included:

"The best is thing is my supervisors as they are not concern about publications, metrics, and achieving KPIs. My supervisor is genuinely interested in science which immensely helps my research."

"Common room facilities, regular seminars."

"We have good office room and laboratories."

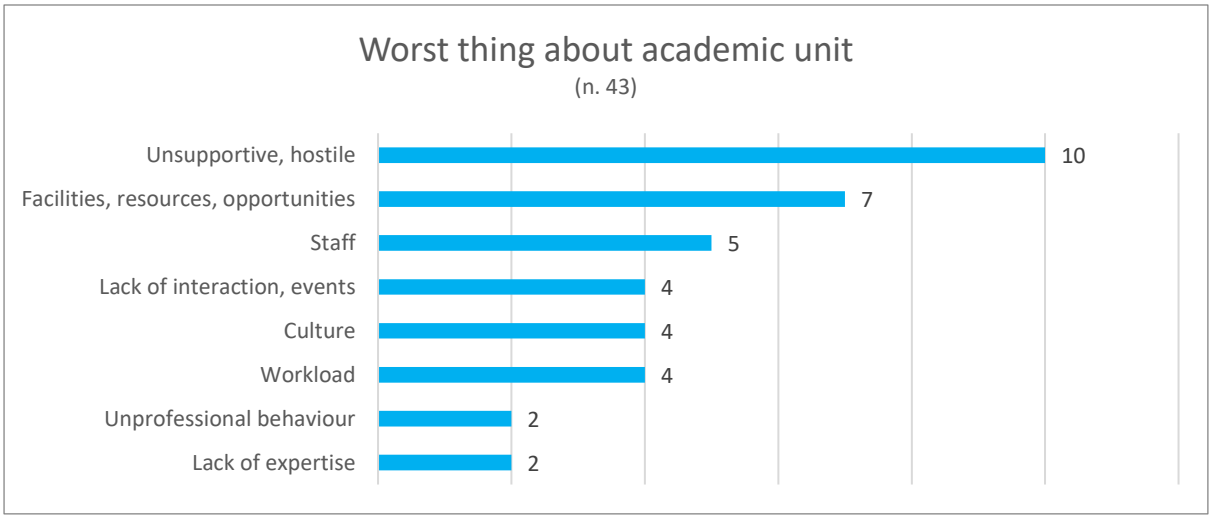
"It's a world class unit with advanced instrumentation."

"Aligned to my research and I can learn a lot from the lecturers, tutors, and other research students."

Worst aspects of academic unit

Participants were asked to comment on what they thought was most-dissatisfying about their academic unit.

The responses of Engineering graduate researchers are summarised below:



Interesting comments included:

"Some unit coordinators don't act professionally."

“Long travel distance.”

“No proper engagement strategies or rewarding programs.”

“Some irrelevant courses I had to do which were of no use to me.”

“Open plan offices which are poorly setup, lights glare on computers and in people's eyes, sound carries from one zoom call across the office, it’s a very hard environment to concentrate in.”

“I think the worst thing is that most academics are chasing after metrics, impact factors, grants, etc, which is extremely unhealthy for PhD students' growth. This has driven a "publish or perish" culture, where supervisors pressure students to publish even if research is low quality - for the sake of "surviving" in academia.”

“The administrative staff at Suzhou campus have extremely low work efficiency and a negative attitude. And they treat students very disrespectfully, especially Jenny Wu and others. They always don't reply to messages or passively deal with me.”

“I have a little unpleasant memory of the administration. At one time, their communication with me took a command and control tone.”

“Being forced to take up course units that is not relevant to my research interest, despite having extra workloads from tutoring.”

“Not a bad thing, but sometimes I feel like there is too much diversity in research topics that it is hard to find support with something specific. I may need to reach out to other departments. But otherwise the diversity is a good thing.”

“There is no information of different facilities in the department. Very little information on sessional TA work.”

“Student-Teacher relationship which is not much comfortable and friendly like other faculties in my experience.”

“Occasional bureaucratic hurdles and lengthy administrative processes.”

“For the time I've been in here, I have not seen any other social activity to know other faculty's members than the seminars. Some social activities for networking should be organized and have a break from the lab.”

“Limited expertise in certain areas and equipment, difficult to sometimes get the necessary technical help.”

“You don't have time to build network with other students at all. We are like strangers.”

Confirmation

Relevant participants were asked to reflect on their experience of confirmation.

Have you passed your confirmation?	Respondents
We don't have this requirement where I study	7 (8%)
No, I'm not at this stage yet	42 (46%)
No, I presented my research, but I need to make amendments	0 (0%)
Yes, I passed first time	42 (46%)
Yes, I passed, but after I needed to make amendments	1 (1%)

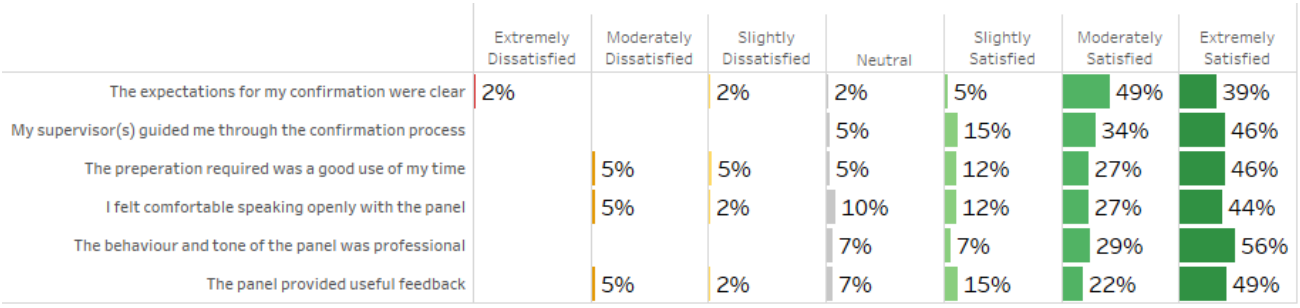
Satisfaction with confirmation process

Participants were firstly asked how satisfied they were with the confirmation process.

The overwhelming majority of respondents expressed that they were satisfied (44% extremely satisfied, 39% moderately satisfied, 5% slightly satisfied), while a small proportion indicted that they were dissatisfied (0% extremely dissatisfied, 3% moderately dissatisfied, 0% slightly dissatisfied).

Participants were then asked a series of questions about their satisfaction with certain aspects of the confirmation milestone.

The responses of Engineering graduate researchers are summarised below:

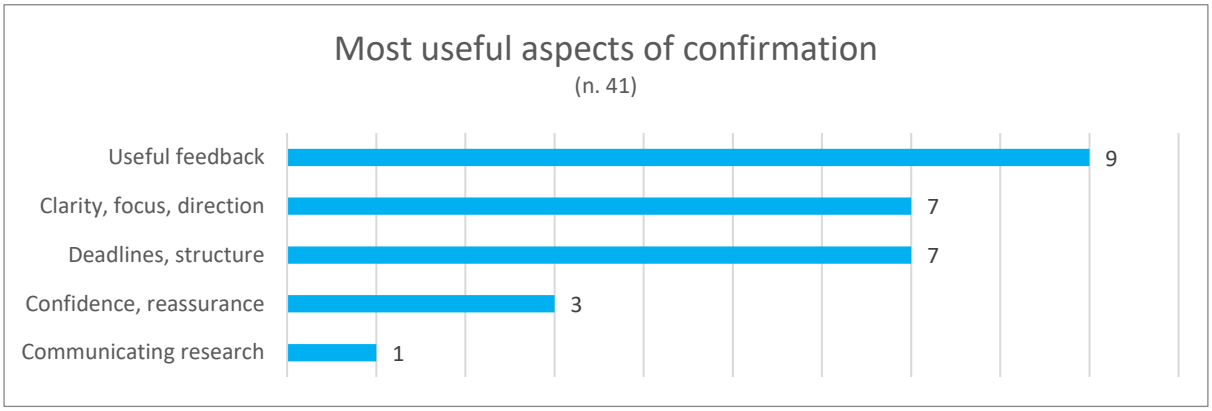


Respondents were overwhelmingly satisfied with all areas of confirmation. The greatest level of dissatisfaction (10%) was in relation to the preparation required representing a good use of their time.

Most useful aspects of confirmation

Respondents were asked to reflect on what they found most useful about the confirmation process.

Below is a summary of their responses:



The most common response from Monash graduate researchers related to how **helpful or useful the feedback** they received was. Comments included:

> *"Feedback from panel and presenting my work are helpful."*
>
> *"The panel was "super" nice and professional. They gave me valuable feedback that help me a lot in my research."*
>
> *"The constructive feedback raised by the panel members on my project."*

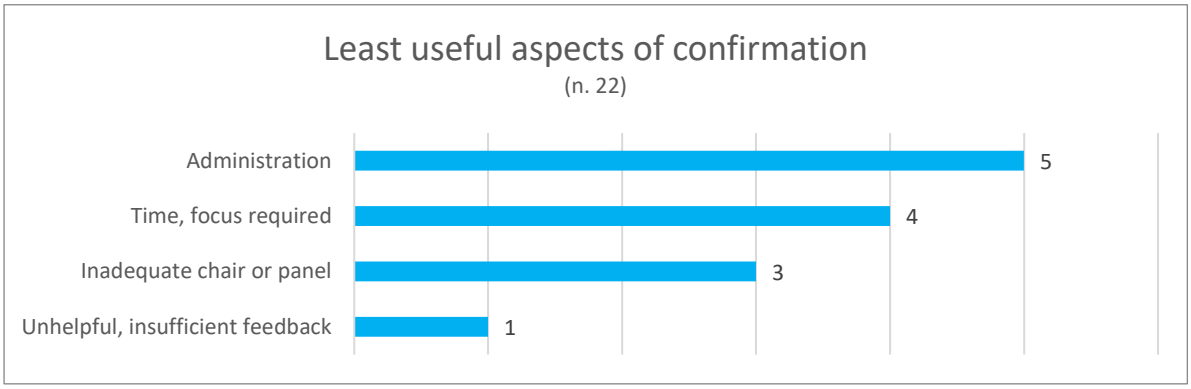
Other interesting comments included:

> *"The verification of my research methodology. The encouragement for publishing my work."*
>
> *"It is a great milestone requiring a modest amount of effort. It frames the research you will conduct for the next year/rest of the course nicely."*
>
> *"That is makes a research student come up with a plan which is useful for the completion of the degree."*
>
> *"The preparation helped to distil in greater detail how I thought about my research and its direction."*
>
> *"It made me clear about my objectives in Ph.D. and helped me set a blueprint for myself."*
>
> *"It was a platform to sort of validate that the work I've done so far, is on par with research standards."*
>
> *"The affirmation of my research direction and topic selection gave me confidence."*

Least useful aspects of confirmation

Respondents were asked to reflect on what they found least useful about the confirmation process.

Below is a summary of their responses:



Interesting comments included:

> *"One of them didn't read the report (I supposed)."*
>
> *"Students will not all be at the same level of progress through their research 1 year into candidature, it seems silly to put a timed milestone with strict requirements when asking people to research something new and novel. There should be more flexibility in when milestones can occur with supervisors advising that it is a good time to progress to the next milestone."*
>
> *"That many a times the panel is not very knowledgeable in that particular field."*
>
> *"I think the time of confirmation should not be fixed on an accurate day. Once I believe I have the ability and enough results, I could have the ability to apply for a confirmation."*
>
> *"I feel like it is more about formality than really useful in terms of the panel is reviewing the progress and giving valuable feedback to me. Although having to complete the milestone made me seriously summarise what I have done and carefully planned for the future, I personally felt it is a bit waste of time when I put too much of efforts in writing a professional report."*
>
> *"The long confirmation milestone report is not very useful, as I will changed it many although I spent a lot of time on preparing it."*
>
> *"The expectations were not made clear until late in the process."*
>
> *"Having the pressure to have some results and progress. It's still pretty early and it might push you towards some unnecessary works that is just a waste of time overall in your candidature."*

Professional Development

Respondents were provided with an opportunity to reflect on their experiences of Professional Development at their university.

Only students for whom Professional Development was relevant (i.e. included in their degree) and who had completed some Professional Development units were asked to respond in regard to their satisfaction and experiences.

Professional Development included in degree

Is Professional Development included in your degree?	Engineering 2024	Monash STEM 2024	Other Eng 2024
No	27%	16%	21%
Yes, but it was optional	45%	21%	58%
Yes, it is mandatory	28%	63%	21%

Professional Development was mandatory for 28% of Engineering respondents compared to 63% of respondents from STEM at Monash and 21% of those studying in the field of Engineering at other universities.

Professional Development: Importance and Satisfaction

Participants were asked to rate how important certain Professional Development themes were and how satisfied they were with what Monash University provides in relation to that theme.

Question	Importance (1-7)	Satisfaction (1-7)	Gap (%)
Presenting findings e.g. conferences, meetings, seminars	6.28	5.62	-10.51%
Data analysis techniques	6.27	5.67	-9.57%
Mental health and wellbeing	6.24	5.51	-11.70%
Research methodologies	6.22	5.82	-6.43%
Industry exposure	6.22	4.91	-21.06%
Project/research management	6.21	5.57	-10.31%
Career planning	6.20	5.11	-17.58%
Publishing skills and knowledge	6.13	5.70	-7.01%
Networking skills	6.11	5.27	-13.75%
Professional ethics	6.07	5.63	-7.25%
Grant writing	5.96	5.25	-11.91%
Entrepreneurial skills	5.80	4.98	-14.14%
Coursework relevant to my research	5.78	5.36	-7.27%
PD with students from other fields	5.48	5.30	-3.28%
	6.07	5.41	-10.84%

Having Professional Development opportunities that focus on publishing skills and data analysis techniques was of the utmost importance to Engineering graduate researchers, while experiencing PD with students from other fields was the least important of the themes.

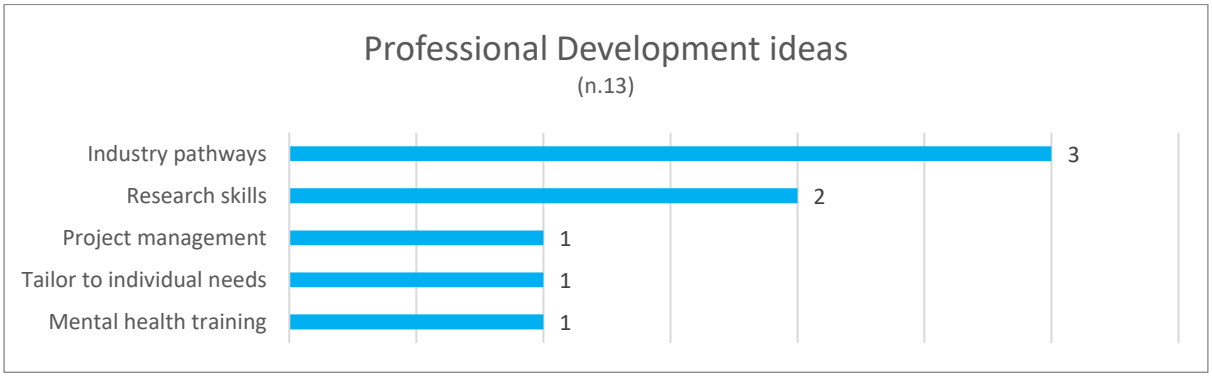
Respondents were most satisfied with PD on research methodologies and least satisfied with industry exposure and entrepreneurial skills.

The widest gaps between importance and satisfaction was in relation to industry exposure and career planning.

Professional Development ideas

Participants were asked what they would like to see offered in relation to Professional Development that was not currently available to them.

Below is a summary of the responses of Engineering graduate researchers.



Comments included:

> *"Choice as to how a student completed PD. In my faculty we were forced to do 2 subjects (from a limited selection that weren't that relevant). I would have much preferred PD hours as short courses, or ideally industry experience such as an internship."*
>
> *"I think course about mental health could be offered."*
>
> *"Mandatory training in data analysis and more exposure to relevant industry partners."*
>
> *"It would be better if they can organize some discussions on research meeting more regularly."*
>
> *"Chance to learn more about entrepreneurial skills."*
>
> *"Having more options in choosing the coursework related to my project. Being flexible to take the coursework in the second year when you have a more clear idea of what you need to learn."*

Paid Employment Opportunities

The following questions were asked in relation to paid employment opportunities.

Paid work at the University

Participants were asked whether they had been given the opportunity to conduct paid work for the faculty or university.

Have you conducted paid work for the faculty or university?	Engineering 2021	Engineering 2024	Monash STEM 2024	Other Eng 2024
Yes	66%	56%	57%	56%
No	34%	44%	43%	44%

*Please note that in 2021 the wording of this question was slightly different. It asked if participants had been given the opportunity to "tutor."

The likelihood of an Engineering graduate researcher at Monash being given an opportunity to conduct paid work for the faculty or university decreased over the past three years; however, it was on par with the norm across STEM at Monash and in the field of engineering at other universities.

Position at the University

Monash respondents were asked to specify the nature of their position at the University.

What was your position at Monash?	Engineering 2024	Monash STEM 2024
Fixed-term (one of the 450 fixed-term roles offered at Monash)	13%	13%
Casual	80%	82%
Other	7%	5%

The overwhelming majority of Engineering graduate researchers employed by the University were on (or had been on) casual contracts.

Paid appropriately

Participants were asked if they felt they were paid appropriately for the work they conducted for their university.

Were you paid appropriately for your work at the university?	Engineering 2021	Engineering 2024	Monash STEM 2024	Other Eng 2024
Definitely not	*(no)*	22%	10%	10%
Probably not	*21%*	20%	15%	10%
Probably yes	*(yes)*	38%	50%	50%
Definitely yes	*79%*	20%	24%	30%

*Please note that in 2021 this question related to being paid for tutoring only and participants could only answer "yes" or "no".

The majority of Engineering respondents believed that they were probably paid (38%) or definitely paid (20%) appropriately for the work they did for the University; however, this was lower than it was across STEM at Monash and at other universities.

Doubt, Delays and Drop Outs

The following section explores research delays and if and why graduate researchers consider leaving their degree.

Imposter syndrome

Participants were asked: Do you ever feel like you don't belong in your field of study despite evidence of your accomplishments and abilities?

Do you ever feel like you don't belong in your field of study…?	Engineering 2024	Monash STEM 2024	Other Eng 2024
Never	46%	33%	39%
Rarely	31%	24%	28%
Sometimes	21%	31%	28%
Often	3%	11%	6%

The majority of Engineering graduate researchers have, at some point, felt like they did not belong in their field of study; however, only 3% indicated that they experienced this feeling "often."

Imposter syndrome levels in Engineering were lower than they were across STEM at Monash.

Research delay

Participants were asked if they had experienced delays in the progress of their research.

Have you experienced delays in the progress of your research?	Engineering 2017*	Engineering 2021*	Engineering 2024	Monash STEM 2024	Other Eng 2024
Never	*(no) 59%*	*(no) 43%*	35%	24%	17%
Rarely	*(yes) 41%*	*(yes) 57%*	21%	23%	22%
Sometimes			30%	39%	33%
Often			15%	14%	28%

*Please note that in 2017 and 2021 this was a "yes" or "no" question.

Just over a third of Engineering graduate researchers (35%) had never experienced a delay in their research, while 15% indicated that they often experienced delays.

Reasons for delay

Respondents who had experienced a delay in the progress of their research were asked to select the reasons for that delay from a list of prepared reasons.

Please select all relevant reasons regarding the delay in progress to your research	Engineering 2021	Engineering 2024	Monash STEM 2024	Other Eng 2024
Change of research project direction	32%	36%	30%	47%
Poor supervision	8%	11%	15%	7%
Lack of resources for my research	25%	34%	28%	33%
Preparing for hurdles/milestones	18%	40%	36%	33%
Unpleasant workplace/research environment	6%	8%	11%	7%
Lack of motivation	40%	43%	38%	33%
Procrastination	NA	40%	35%	27%
Health issues	19%	32%	28%	47%
Family responsibilities	19%	28%	25%	33%
Cost of living/financial concerns	18%	38%	32%	60%
Work commitments	8%	9%	14%	13%
Data collection issues	NA	21%	29%	33%
COVID-19	94%	11%	18%	47%
Other	14%	6%	13%	7%

A lack of motivation was the most common cause of delay for Engineering graduate research students.

Cost of living/financial concerns more than doubled as a cause of delay since 2021.

Considered leaving

Participants were asked if they had ever considered leaving their course.

Have you ever considered leaving your course?	Engineering 2021*	Engineering 2024	Monash STEM 2024	Other Eng 2024
Never	*(no) 79%*	72%	65%	39%
Rarely	*(yes) 21%*	19%	19%	28%
Sometimes		9%	14%	28%
Often		1%	3%	6%

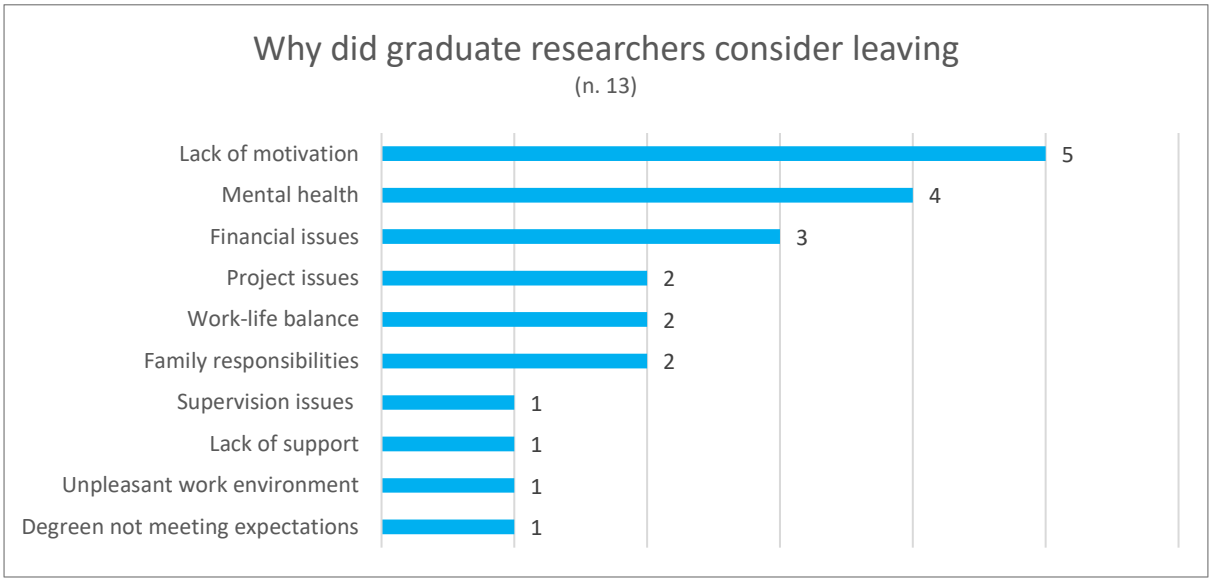
*Please note that in 2017 and 2021 this was a “yes” or “no” question.

Engineering graduate researchers were less likely than their colleague across STEM and far less likely than engineering students at other universities to have considered leaving their degree.

Why leave

Respondents who had considered leaving were asked to elaborate as to why.

The responses of Engineering graduate researchers are summarised below:



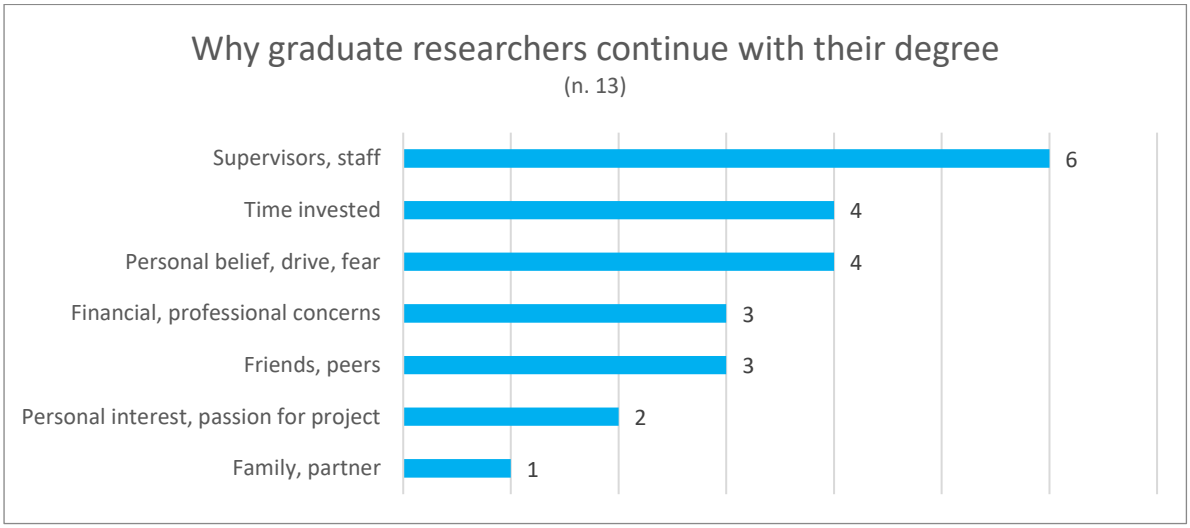
Revealing comments included:

> *"Sometime it is very hard to maintain family and work at the same time. I have a 3-year-old daughter."*
>
> *"Overwhelming amount of work with no sense of reward."*
>
> *"Because of low payment."*
>
> *"It was taking far too long, I didn't have the support I needed, it felt uncomfortable, and I was unsure if the degree would be viewed favourably by industry."*
>
> *"That the payscale of recent graduates was not very different from people with bachelor degrees. Also, the uncertainty in funding towards the end of the degree is frightening."*
>
> *"Unable to balance work-life, not getting expected support from the supervisors."*
>
> *"Because of non-rewarding nature of degree. After putting all this effort, I need put additional significant efforts for job hunt. Which makes having this degree redundant. Moreover, I feel like I am solving research problem which is only relevant to me. Moreover, I am not learning anything new."*
>
> *"I considered leaving my degree due to challenges balancing academic demands with personal and professional responsibilities. The workload and stress at times felt overwhelming, and I questioned whether the degree was aligning with my career aspirations. However, with support from mentors and a renewed focus on my long-term goals, I ultimately decided to persevere and continue pursuing my degree."*
>
> *"I am not enjoying it so much, I find the solo nature of the work difficult and often it is slow and tedious. Lots of bureaucracy makes it difficult to work."*

Why continue

Respondents who had considered leaving their course were asked why they had decided to continue.

The responses of Engineering graduate researchers are summarised below:



Interesting comments included:

> *"Self-motivation. I do not want to be a failure."*
>
> *"Talking to people, and learning about the pros and cons of staying versus leaving and working with supervisors to get a good plan to streamline the remainder of the degree."*
>
> *"Since I had made a lot of investment in the degree so far and crossed a point of no return. Also, I love research."*
>
> *"My supervisor and friends and family gave me support."*
>
> *"I can't give up easily. Whatever happens; I want earn that salutation as "Dr.""*
>
> *"I had invested a considerable amount of time and didn't want it to go to waste."*
>
> *"I know that this is important for my career, and I have worked hard already and it is a finite period of time."*
>
> *"Because of the work that I did and also great environment that we have. All the support my supervisor provided."*
>
> *"I considered continuing my degree because of the valuable opportunities for personal and professional growth it offered. Completing my degree would enhance my career prospects and allow me to pursue my passion in the field. Additionally, I was motivated by the support of mentors and peers who encouraged me to persevere through challenges and stay committed to my academic journey."*

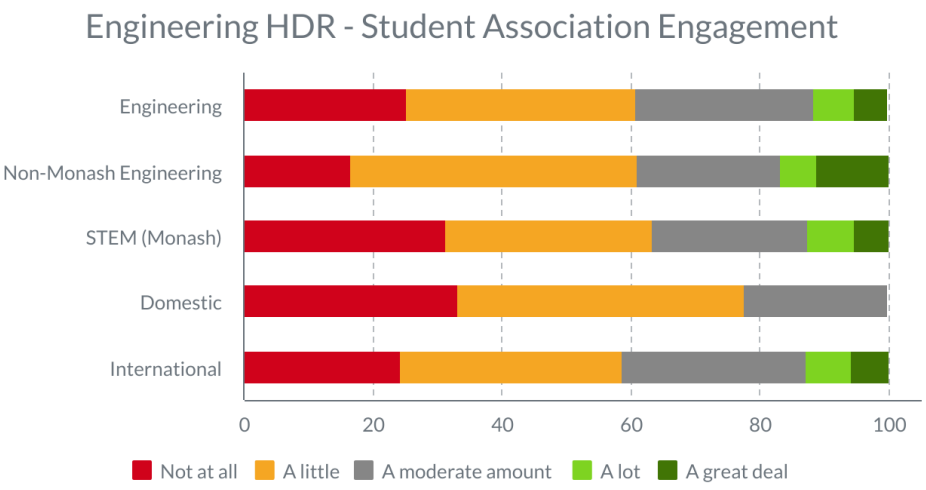
Engagement and Satisfaction with the Monash Graduate Association (MGA)

This section highlights the engagement levels that Engineering graduate research students have with their representative body - the Monash Graduate Association (MGA) – as well as their satisfaction with the MGA. It also includes respondents' suggestions for how the MGA or equivalent student body could better support the university's students.

3.1 MGA engagement

Participants were asked to respond to the question *how engaged do you feel with your student association or union or guild?*

Below is a summary of how key groups within Engineering responded:

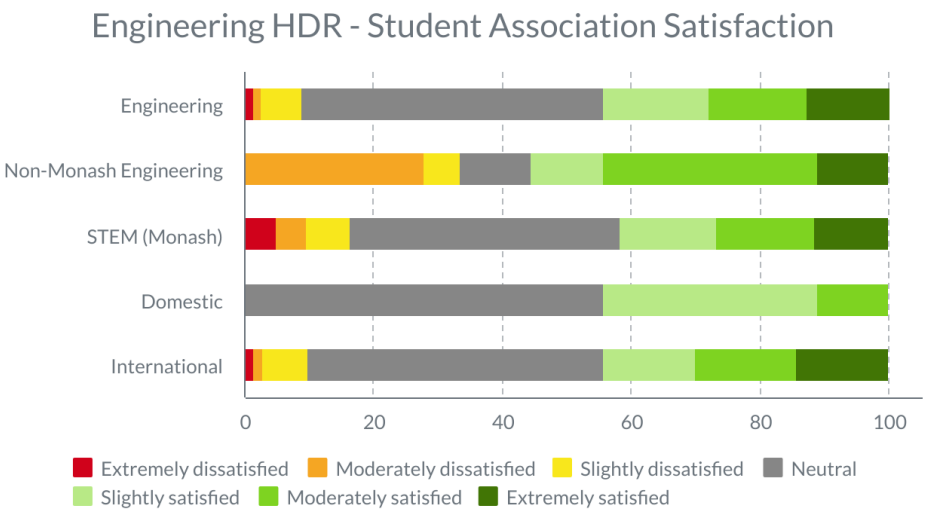


In Engineering, international students were more likely to have engaged with the MGA than were domestic students. This was true across the University.

3.2 MGA satisfaction

Participants were asked to respond to the question *how satisfied are you with your student association/union/guild?*

Below is a summary of how key groups within Engineering responded:

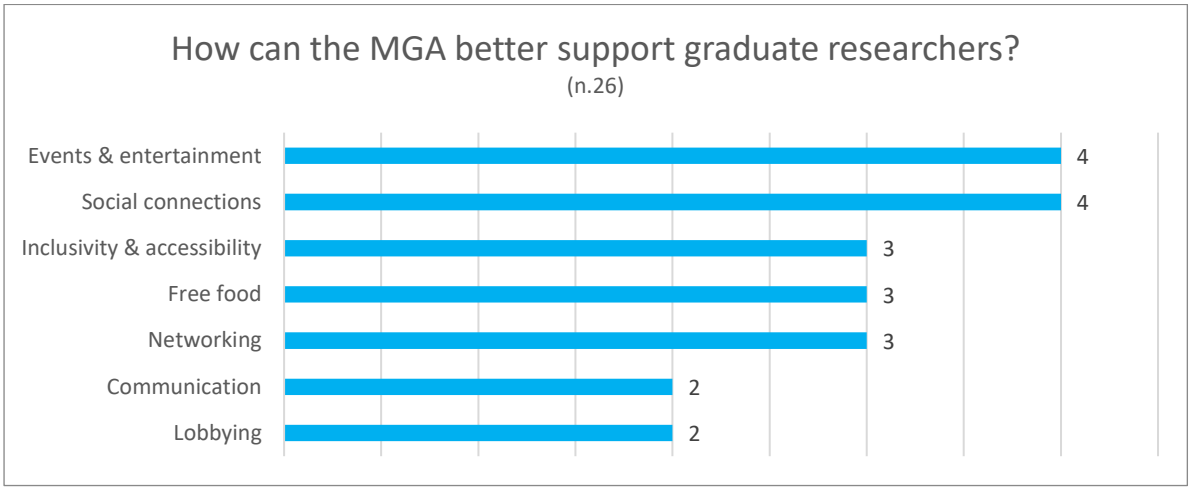


Engineering respondents were far more likely to be satisfied than dissatisfied with the MGA.

3.3 Suggestions for additional support

Participants were given the opportunity to respond to the question *how could your student association better support you?*

Below is a summary of responses:



Revealing comments included:

> *"More fun social events on campus including free food events or food vouchers."*
>
> *"I think they should have more regular meet-ups and connect with PhD students more to understand our issues better."*
>
> *"Students need to clearly understand the existence, structure and participation opportunities of the Student Union."*
>
> *"Arrange more exposure to local industries or work opportunities. Maybe also, have a meeting with international students early on giving suggestions on topics like accommodation, managing expenses etc."*
>
> *"They can arrange more student-alumni and Student-industry interactions."*
>
> *"Raise the student concern for 485 visa for graduate with 35 years of age limit."*
>
> *"It's just that I don't have time for such activities. Too tired doing research already."*

Conclusion

The results of the MGA's *National Postgraduate Student Satisfaction Survey 2024* have provided valuable insights into what Engineering graduate research students value in regard to their educational experience, as well as how satisfied they are with the structure and delivery of their degrees.

The key findings, as they relate to respondents from the Faculty of Engineering are summarised below:

Key findings

Engineering graduate researchers are largely satisfied with their supervision experience

Across all sixteen metrics surveyed, satisfaction in relation to supervision was high. Engineering graduate researchers are predominantly satisfied with their supervision experience with supervisors largely meeting the expectations and needs of their students.

The three most important aspects of supervision to Engineering respondents were having skilled supervisors, receiving timely and receiving constructive feedback. Skilled supervision also ranked first for satisfaction.

An average gap score of -2.56% between importance and satisfaction indicates that the Faculty's supervisors are largely meeting the expectations of their graduate research students.

A focus on career planning and industry exposure is desired from Professional Development

Students in Engineering placed great importance on Professional Development themes that focused on career planning and industry exposure. Satisfaction with what is being delivered in relation to these themes was comparatively low, which meant there was a relatively wide gap between importance and satisfaction.

Decline in proportion of graduate researchers being employed by the University

The proportion of Engineering graduate research students reporting that they were or had been employed by the University dropped from 66% in 2021 to 56% in 2024.

MGA engagement better among international students, but satisfaction levels consistent across demographic groups

The MGA better engages with international graduate researchers, but satisfaction with the Association remained relatively consistent across the demographic groups.

Recommendations

Based on the findings of the MGA's *National Postgraduate Student Satisfaction Survey 2024*, the MGA recommends the following actions be taken to improve the graduate research student experience in the Faculty of Engineering:

Improving industry exposure

Improving students' access to industry exposure through Professional Development, seminars or internships would be beneficial to an Engineering cohort who identified this as an area for improvement.

Career planning to be incorporated into the PhD program

Building an initial career planning session, as well as annual reviews, with a professional career counsellor who is experienced working with PhD students, into the requirements of candidature would serve to address the gap in students' expectations, improve satisfaction and potentially lead to improved outcomes for research degree graduates.

Please note, career planning sessions may not be relevant to certain candidates e.g. mature-aged students. As such, a self-exclusion or "opt-out" mechanism must be built in to any new systems.

Reverse downward trend on providing employment opportunities to graduate researchers in the Faculty

Although the Faculty's proportion of students employed by the University was on par with that across STEM at the University, it is important to continue to increase offering employment opportunities to graduate researchers.

Increased employment opportunities may serve to counter the rise in students facing delays and considering leaving because of financial or cost of living concerns.

Appendix 1: Demographics

Campus	Respondents
I do not regularly attend campus	0 (0%)
Clayton	81 (81%)
Caulfield	0 (0%)
Peninsula	0 (0%)
Parkville	0 (0%)
Malaysia	4 (4%)
Suzhou	20 (20%)
other	0 (0%)

Domestic/International	Respondents
Local student (Australian or New Zealand citizen/permanent resident)	10 (10%)
International student	91 (90%)

Study load	Respondents
Full-time	97 (96%)
Part-time	4 (4%)
On leave from study	0 (0%)

Study location	Respondents
Entirely on-campus	71 (70%)
Multi-modal	26 (26%)
Entirely off-campus	2 (2%)
Other	2 (2%)

Time since last degree	Respondents
Less than 1 year	37 (37%)
1-5 years	58 (57%)
6-10 years	5 (5%)
11+ years	1 (1%)

Course progress	Respondents
First year	48 (48%)
Second year	20 (20%)
Third year and beyond	33 (33%)

Study hours	Respondents
Less than 5	0 (0%)
6-10	6 (6%)
11-20	9 (9%)
21-30	18 (18%)
31-40	28 (28%)
Over 40 hours	40 (40%)

English proficiency	Respondents
Fluent	27 (27%)
Advanced	40 (40%)
Intermediate	28 (28%)
Elementary	6 (6%)
Beginner	0 (0%)

Gender	Respondents
Woman	41 (41%)
Man	59 (58%)
Non-binary/gender diverse	0 (0%)
Prefer to self-describe	0 (0%)
Prefer not to say	1 (1%)

LGBTIQA+	Respondents
Yes	8 (8%)
No	85 (84%)
Prefer not to disclose	8 (8%)

Indigenous (domestic students only)	Respondents
Yes	0 (0%)
No	9 (90%)
Prefer not to disclose	1 (10%)

Disability	Respondents
Yes	1 (1%)
No	99 (98%)
Prefer not to disclose	1 (1%)

Registered disability with DSS	Respondents
Yes	1 (100%)
No	0 (0%)

Age	Respondents
24 or under	12 (12%)
25-29	50 (50%)
30-39	38 (38%)
40 and over	1 (1%)

Employment status	Respondents
Full-time	15 (15%)
Part-time	8 (8%)
Casual	16 (16%)
Unemployed and looking for work	28 (28%)
Not employed and not looking for work	37 (37%)

Work hours	Respondents
Less than 5	5 (13%)
6-10	18 (47%)
11-20	4 (11%)
21-30	2 (5%)
31-40	5 (15%)
More than 40	4 (11%)