

Doctoral Student Experience: The Supervisors' Perspective

Fiona Knight ^{1,*} , Julia Taylor ¹ and Martyn Polkinghorne ² ¹ Doctoral College, Bournemouth University, Poole BH12 5BB, UK; jetaylor@bournemouth.ac.uk² Business School, Bournemouth University, Poole BH12 5BB, UK; polkinghornem@bournemouth.ac.uk

* Correspondence: fknight@bournemouth.ac.uk

Abstract: This research considers the perceptions of doctoral supervisors relating to their experience of supervising students within a single case study university in the United Kingdom (UK). A survey of supervisors was undertaken that elicited quantitative and qualitative data, which were analysed and compared with the responses from postgraduate research students from the same institution, obtained through the annual national postgraduate research experience survey. This new understanding was important to elicit as it provided us with valuable insights into various aspects of the doctoral students' experience from a supervisory viewpoint, highlighting both strengths and areas that require improvement. By addressing the identified areas of concern, and building upon the areas of strength, the university will be able to enhance the doctoral supervision process, and so create a more positive and supportive postgraduate research environment in the future. One of the most interesting aspects to emerge from this research is the gap in perception between the supervisors' own views and those of their doctoral students, for example regarding communication. To greater understand the identified phenomena, it is recommended that this research should continue as a longitudinal study with the survey being repeated on a biennial basis.

Keywords: postgraduate researcher; doctoral student; PhD; supervision; best practice; university; higher education



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1. Introduction

This research study considers the supervisory perception of the experience of doctoral students within a single institution in the United Kingdom (UK) higher education context as a case study. Doctoral students are those who are studying for a doctorate degree, which is the highest tier of education offered by universities and is above both bachelor's and master's degrees [1]. The most common variant of the degree is a Doctor of Philosophy, otherwise often known as a PhD, which has evolved into a research-based course undertaken over several years through a programme of individual study [2].

Unlike taught degrees, the required outcome of the PhD is to make an innovative and original contribution to the body of knowledge for a particular discipline area. Whilst the degree is largely self-managed, the assignment of supervisors to each doctoral student is necessary. They are each therefore provided with a guide and mentor to assist them in achieving a successful and timely completion [3–5]. There are some key aspects of the environment for doctoral student supervision in the UK that need to be considered:

- In the UK, each doctoral student is assigned a supervisory team comprising one or more supervisors who support them throughout their research journey [5–8]. The supervisor plays a crucial role in providing academic and pastoral support, assisting the student in developing research skills, and ensuring timely progress towards completion [9–12].
- UK doctoral degrees are research-focused programmes in which students are expected to make an original and innovative contribution to their respective fields [13,14]. The emphasis is on independent study and the production of a substantial thesis or dissertation.

- Doctoral students in the UK have a significant degree of autonomy in managing their research projects [1,15–17]. They are responsible for setting research goals, designing methodologies, and conducting investigations under the guidance of their supervisors. This self-managed learning approach requires students to be self-motivated and capable of independent thinking [5,9,18].
- Higher education organisations in the UK higher education sector strive to provide adequate support and resources to doctoral students [1,9,19]. This includes access to library facilities, research funding opportunities, specialised training and workshops, and opportunities for networking and collaborating with peers and experts in their field [20–22].
- The environment for doctoral student supervision in the UK is subject to evolving challenges. These may include changing funding models, the impact of technology and digital learning [23,24], the need for interdisciplinary research, and the increasing incidence of issues related to mental health and wellbeing amongst doctoral students [25–29].

The UK provides a supportive and structured environment for doctoral student supervision, with a focus on research excellence, academic guidance, and fostering a positive and inclusive research culture. Institutions continuously strive to enhance the supervision experience to ensure successful completion of doctoral degrees.

2. Postgraduate Research Experience Survey

Each year in the UK, Advance HE operates the Postgraduate Research Experience Survey (PRES) [30] to monitor how the environment for research degrees is changing, reveal the experiences of research students, and assist institutions in identifying areas for improvement in the supervision process.

Research students, in this sense, include both masters and doctoral level students undertaking research degrees (for example, Master by Research, Doctor of Philosophy, Professional Doctorate). The data are collected at an institutional level and then combined to provide a national picture. For example, based upon the PRES undertaken in 2022 [31], overall student satisfaction across UK institutions rose to 80%, following a series of years in which a decline had been reported. Non-UK based students reported the most significant increase in satisfaction rating. Satisfaction rates for supervisory support being delivered online dropped in comparison to that delivered by face-to-face or hybrid methods. In addition to overall observations, students are asked to report against the following specific topics:

- Supervision;
- Resources;
- Research culture;
- Progress and assessment;
- Responsibilities;
- Support;
- Research skills;
- Professional development;
- COVID-19 support.

For the PRES in 2022, a total of 62 institutions were involved and there were 19,922 representative participating students, of which 72% were studying in a full-time mode and 28% were in a part-time mode [31] (p. 7). Typically, students have reported 75–82% satisfaction in most areas, with the exceptions being research culture with only 57% satisfaction and research skills and supervision with 86% and 87% satisfaction, respectively [31] (p. 22). The case of research culture provides an interesting perspective, as students did not feel that they had access to a good range of supporting seminars (54% satisfaction), nor did they have opportunities to discuss their own research with others (57% satisfaction). Furthermore, students did not feel aware of the opportunities for involvement in the wider research community (57% satisfaction), and they did not consider that the research community had influenced their work (51% satisfaction). All of these are considered to be key aspects of

an active and positive research community. As a wider point, it has been concluded that students are using the PRES as a mechanism to report when they do not feel that their feedback and views are being taken seriously by their institutions in the form of visible tangible action [31]. PRES 2023 has now concluded, but sector results are not yet available.

Given the prevalence of student views, it was decided that a contemporaneous survey of supervisors would elucidate their perspectives and provide balance to the debate. This research therefore reports on a programme of research undertaken to understand the perspective of doctoral supervisors, and provides a unique insight into their thoughts and views from which we can start to deduce how universities can improve the infrastructure and environment to support supervisors, thereby providing a more optimal level of supervision to doctoral students [9,32].

3. Materials and Methods

The aim of this study is to explore and understand the perspectives of doctoral supervisors within the UK higher education context, using one university as a case study, with a focus on their experiences, challenges, and suggestions for improving the supervision of doctoral students.

The study seeks to provide valuable insights into the infrastructure and environment needed to support supervisors in delivering optimal supervision to doctoral students. The findings will contribute to enhancing the overall quality of doctoral supervision and potentially inform policy and practice at this case study university, and may inspire other universities in the UK and elsewhere, using a similar supervision system, to replicate the process. This study strives to answer the following research questions:

1. How do doctoral supervisors perceive the existing infrastructure and support systems for doctoral supervision in a UK university?
2. What do doctoral supervisors consider to be the key factors that contribute to a positive postgraduate research environment for doctoral programmes?

These research questions were selected as they help us to explore the experiences, perspectives, and recommendations of doctoral supervisors regarding doctoral supervision in the UK higher education context, providing insights into areas that need improvement and potential strategies for enhancing the overall supervision process.

This research employs a case study method to understand the viewpoint of doctoral supervisors working in the UK higher education sector who are currently supervising doctoral students undertaking a programme of research that leads to the student being awarded a PhD. The case study is focused upon a single UK university, but the findings are indicative of issues that may be relatable to both similar cases (for example, other UK universities) and dissimilar cases (for example, universities in other countries operating a similar educational system). The case study university is a medium-sized, post-1992 modern university located in the south of England in the UK. The total student base is approximately 17,000 students, of which 600 are undertaking postgraduate research degrees, among whom 200 are staff and 400 are students funded through a variety of mechanisms, including research council grants, student finance grants, and self-funding from personal savings. Whilst the university offers professional doctorates, e.g., engineering and educational doctorates, the majority of the 400 non-staff research degree students are following the full-time PhD route.

The philosophical position taken for this research is that of realism [33], the approach is abductive [34], and the study has a cross-sectional time horizon as there were no previous supervisor data for the purposes of direct year-on-year comparison. All active doctoral supervisors at the case study institution were contacted and invited to contribute. With only a few exceptions, all invited staff were qualified to doctorate level themselves, and regularly engaged in both teaching and research activities at the university. Participants who engaged with the research study did so on a voluntary basis, and so, the sample size for this small-scale pilot study is too small for generalisation, making this a non-probability mixed-method study [34].

Where possible, the questions asked mirrored many of the issues being investigated in the PRES so that a direct comparison will be possible in the future when the PRES 2023 results are subsequently released. In the meantime, and taken in isolation, the data collected from supervisors reported in this study provide an alternative and valuable perspective on doctoral supervision. The data collected were quantitative in nature and based upon a 5-stage Likert-style [35] series of response options, ranging from *strongly disagree* to *strongly agree*.

Questions asked were aligned to the following PRES-related topic areas, each of which is detailed in the analysis section:

1. Supervision;
2. Research culture;
3. Progress and assessment;
4. Responsibilities;
5. Support (including resources);
6. Research skills;
7. Professional development;

A single additional open-ended free-text question was also asked to enable participants to share their own personal thoughts and views. The qualitative data collected were analysed using the recursive abstraction method [36,37]. Recursive abstraction is known to be useful when applied to the analysis of qualitative data from a wide range of sources, including interviews, focus groups, reports, and open-ended free-text questions. The process itself involved a series of steps in which the data were paraphrased and then repeatedly collapsed by grouping into themes/codes, so that patterns and trends could emerge [38].

Data were collected from the university's doctoral supervisors during the period of May to June 2023, using an online survey tool managed by the JISC system [39]. JISC (Joint Information Systems Committee) is a UK-based agency that provides digital and technology services to higher education.

The study was conducted in accordance with the Declaration of Helsinki and approved by the Ethics Committee of Bournemouth University (Reference Identification 49756, 2 May 2023).

4. Results

In this analysis, responses are presented as the percentage agreeing or strongly agreeing with the statement in relation to the total responses. The results are based upon supervisors of postgraduate researchers (PGRs). The PGR grouping includes doctoral students but also a minority of master's level students undertaking research degrees. This corresponds to the PRES, which includes both doctoral students and master's level research students.

A total of 59 responses were received from a university survey population of 415 doctoral supervisors, giving a response rate of 14.3%. Details of the respondent demographics and the results are provided in the following sections.

4.1. Respondent Demographics

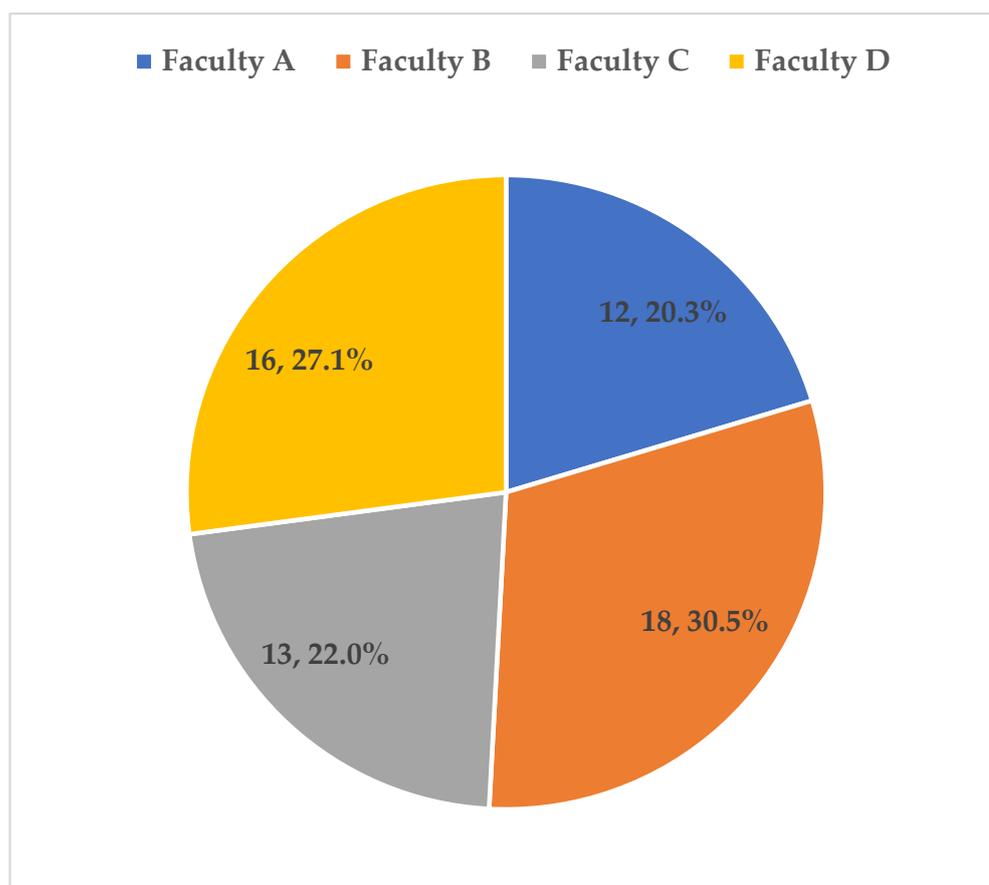
The university has four faculties within which research is undertaken in 20 departments across a range of science, social science, and humanity disciplines. Doctoral supervision is embedded in all disciplines and contributes to the exciting and thriving research culture across the institution.

Responses to the survey were analysed by faculty and Table 1 therefore provides an overview of the principal disciplines in each faculty.

The numbers of responses from each faculty were evenly split, as shown in Figure 1, with the institutional response rate being 14.3%. However, based on total supervisor numbers, the response rate by faculty varied from 23.1% in Faculty B to 9.1% in Faculty D.

Table 1. Faculty key disciplines.

Faculty	Disciplines
Faculty A	Social Sciences
Faculty B	Social Sciences, Humanities, Science
Faculty C	Social Sciences, Humanities, Computer Science
Faculty D	Science, Technology, Engineering, Social Sciences, Humanities

**Figure 1.** Response rate by faculty (number of responses, percentage of total responses). Source: authors' own work.

Of the respondents, by gender, 54.2% were female, 40.7% were male, and 5.1% preferred not to say. Similarly, by nationality, 83.1% of respondents were UK nationals, 11.9% were international, and 3.4% preferred not to say.

4.2. Quantitative Results

Supervisors (respondents) were asked to select a response from the range strongly disagree, disagree, neutral, agree, or strongly agree to each statement presented.

4.2.1. Overall Satisfaction

Supervisors were asked to respond to the statement "Overall, my PGRs are satisfied with the experience of their research degree programme." At institutional level, 84.7% of supervisors agreed or strongly agreed with the statement. By faculty, however, there were mixed results, as highlighted in Table 2.

Figure 2 compares the responses to this statement from supervisors in this survey and those from PGRs in PRES 2021 and PRES 2022. At the institutional level, the responses indicated that supervisors' perception of PGRs' satisfaction in their overall experience

was higher than the actual responses from PGRs. This was mirrored in all faculties, apart from Faculty A, where PGRs rated their overall experience higher than the perception of their supervisors.

Table 2. Overall, my PGRs are satisfied with the experience of their research degree programme—Supervisor Responses.

Faculty	% Agree/Strongly Agree
Faculty A	75.0%
Faculty B	83.3%
Faculty C	84.6%
Faculty D	93.8%
Overall	84.7%

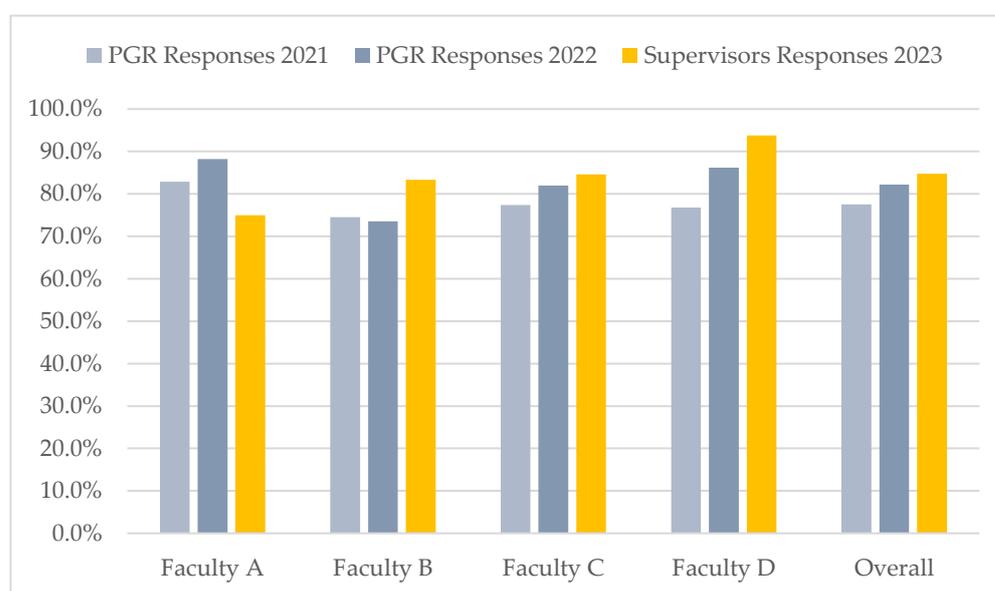


Figure 2. Scores for “Overall Satisfaction” from supervisors (2023) and PGRs (PRES 2021 and PRES 2022). Source: authors’ own work.

Figure 2 also shows that, from a PGR perspective in PRES 2022, in terms of overall satisfaction, Faculty A was the best performing faculty with an average score (agree and strongly agree) of 88.0%, whereas Faculty B was the lowest at 70.8%. It is worth noting that the university was 2.2% above the sector average in 2022. These scores also show that PGRs’ overall satisfaction improved between PRES 2021 and PRES 2022 across the institution, apart from Faculty B where it decreased by 1%.

4.2.2. Supervision

Respondents were asked to respond to four statements about “Supervision”:

1. I have the skills and subject knowledge to support my PGRs’ research;
2. I have regular contact with my PGRs, appropriate for their needs;
3. I provide feedback that helps my PGRs to direct their research activities;
4. I help my PGRs to identify their training and development needs as a researcher.

Overall, the average score to all Supervision statements was 95.8% across all four faculties. The highest performance was 98.4% in Faculty D, whilst Faculty A’s performance was lowest at 93.8%.

This highest scores were for Statement 1 (*I have the skills and subject knowledge to support my PGRs’ research*) and Statement 3 (*I provide feedback that helps my PGRs to direct their research activities*), with both having an average score of 98.3%. Statement 2 (*I have regular contact*

with my PGRs, appropriate for their needs) was the next highest with an average score of 96.6%, whilst Statement 4 (I help my PGRs to identify their training and development needs as a researcher) had the lowest score with 89.8%. These results are illustrated in Figure 3.

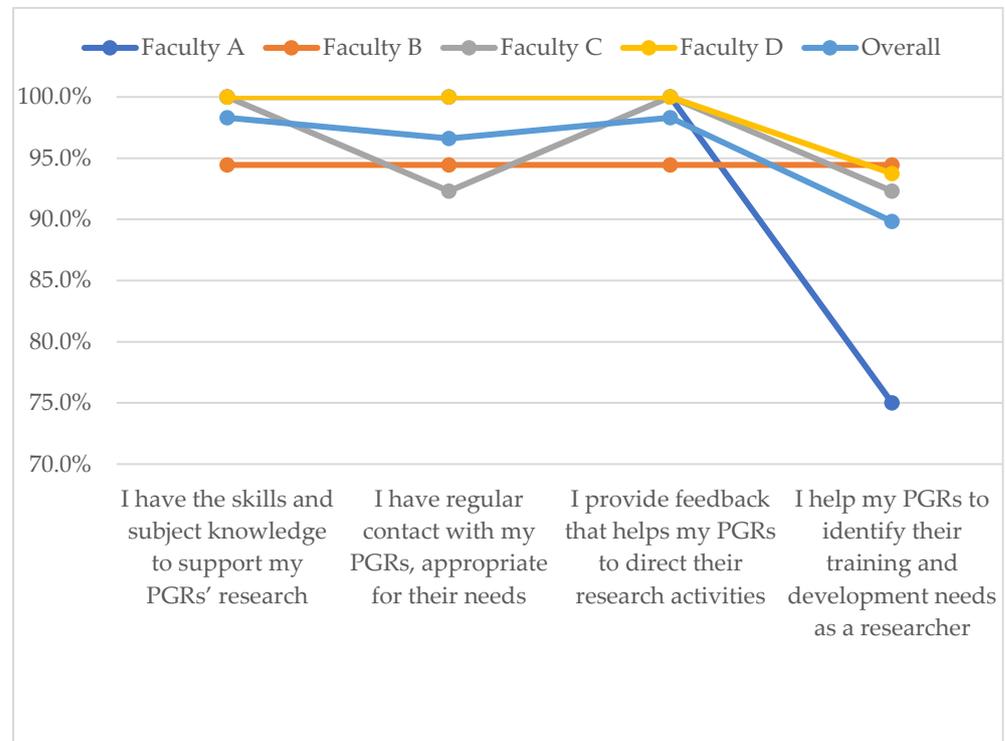


Figure 3. Scores for “Supervision” statements by faculty. (NB: Faculties A and D scored 100% in Statements 1, 2, and 3; Faculty C scored 100% in Statements 1 and 3). Source: authors’ own work.

Statement 4 (I help my PGRs to identify their training and development needs as a researcher) saw the lowest average score with 89.8% of supervisors agreeing and strongly agreeing across all four faculties. This was particularly impacted by Faculty A, where only 75.0% of supervisors agreed or strongly agreed that they assisted their PGRs in identifying training needs. This suggests that further guidance is needed for supervisors so they can better understand the range of institutional training available for PGRs and their role in helping their PGRs to identify their training and development needs.

Whilst the scores from PGRs for PRES 2023 are not available at this time, the scores from PRES 2022 and PRES 2021 can be compared to the supervisors’ scores presented in this paper.

Overall, the scores from supervisors to the Supervision statements in this survey were more favourable than the perceptions of PGRs as highlighted in the responses to PRES 2022. The average score for all supervision statements from supervisors was 95.8% across all four faculties, which was 7.4% higher than the average score for all Supervision statements from PGRs, at 88.3%.

The differences, by faculty, between the scores to the Supervisor statements from supervisors from those of PGRs are shown in Figure 4. Only Faculty A had an average score from PGRs higher than the score from supervisors (+3.3%). For all other faculties, the average score from PGRs was lower than the score from supervisors: Faculty D—6.2%; Faculty C—9.4%; Faculty B—14.4%.

The scores for the individual Supervisor statements from PGRs (PRES 2022) are shown in Figure 5. These exhibited a similar pattern to the supervisor scores shown in Figure 3. This strengthens the need to improve the support offered by supervisors to PGRs in identifying their training and development needs.

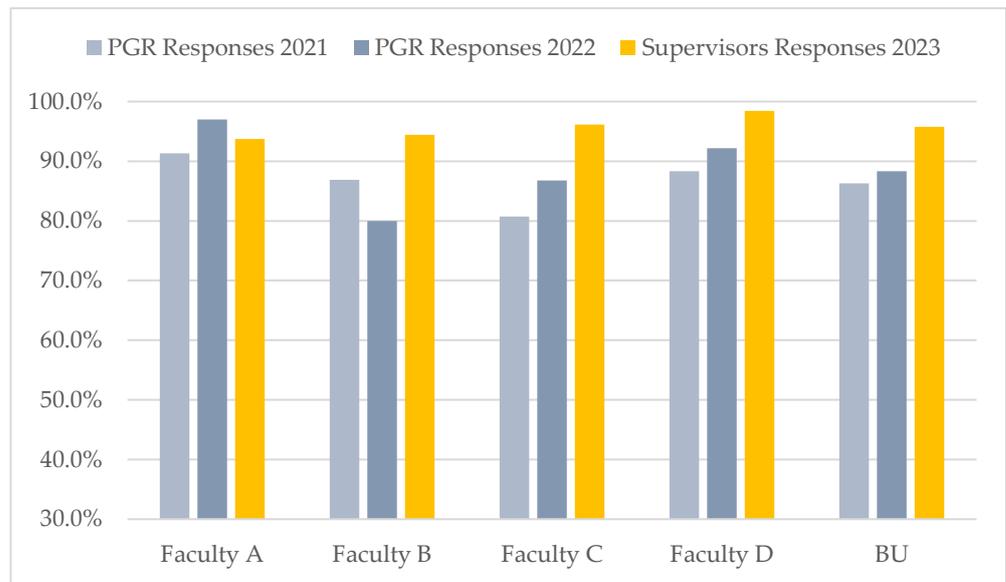


Figure 4. Scores for “Supervision” statements from supervisors (2023) and PGRs (PRES 2021 and PRES 2022). Source: authors’ own work.

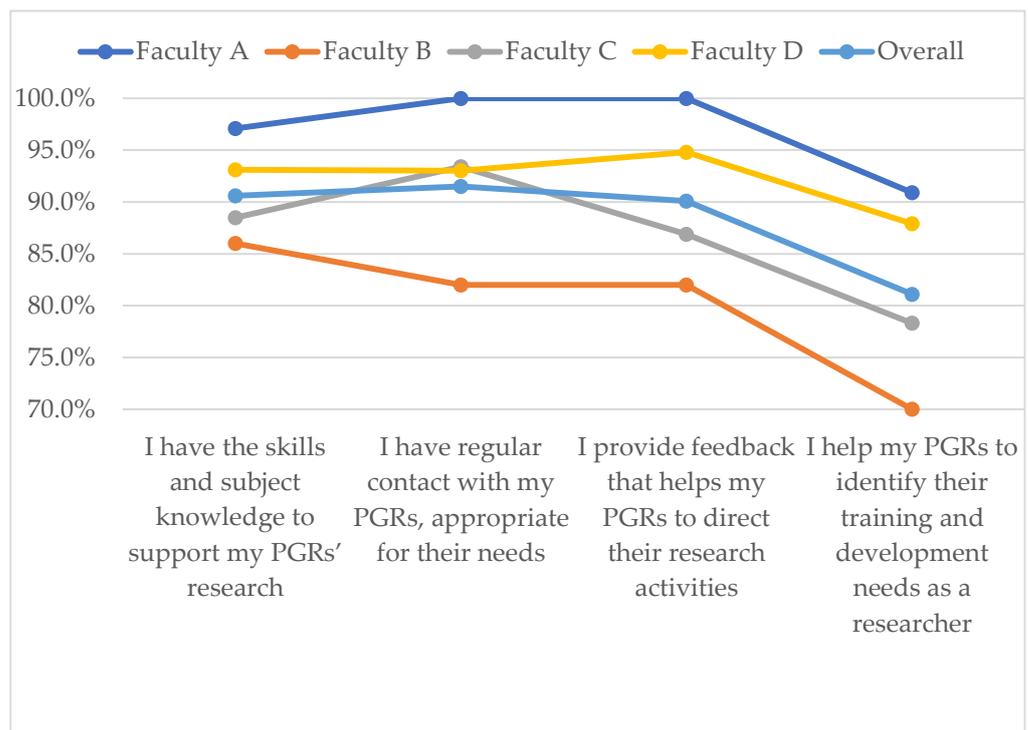


Figure 5. PGR scores for “Supervision” statements by faculty (PRES 2022). Source: authors’ own work.

4.2.3. Research Culture and Community

Respondents were asked to respond to two statements about “Research Culture and Community”:

1. My PGRs have access to a good range of seminars in their research area and frequent opportunities to discuss their research with other researchers;
2. My PGRs are aware of opportunities to become involved in the wider research community beyond their department.

Overall, the average score for all Research Culture and Community statements was 66.9% across all four faculties. The highest score was 88.4% in Faculty D, whilst Faculty A's score was lowest at 50.0%.

Statement 1 (*My PGRs have access to a good range of seminars in their research area and frequent opportunities to discuss their research with other researchers*) had an average score of 71.2%. Faculty scores varied from 87.5% in Faculty D to 58.3% in Faculty A.

Similarly, Statement 2 (*My PGRs are aware of opportunities to become involved in the wider research community beyond their department*) had an average score of 62.7%. Faculty scores varied from 81.3% in Faculty D to 41.7% in Faculty A. This is illustrated in Figure 6.

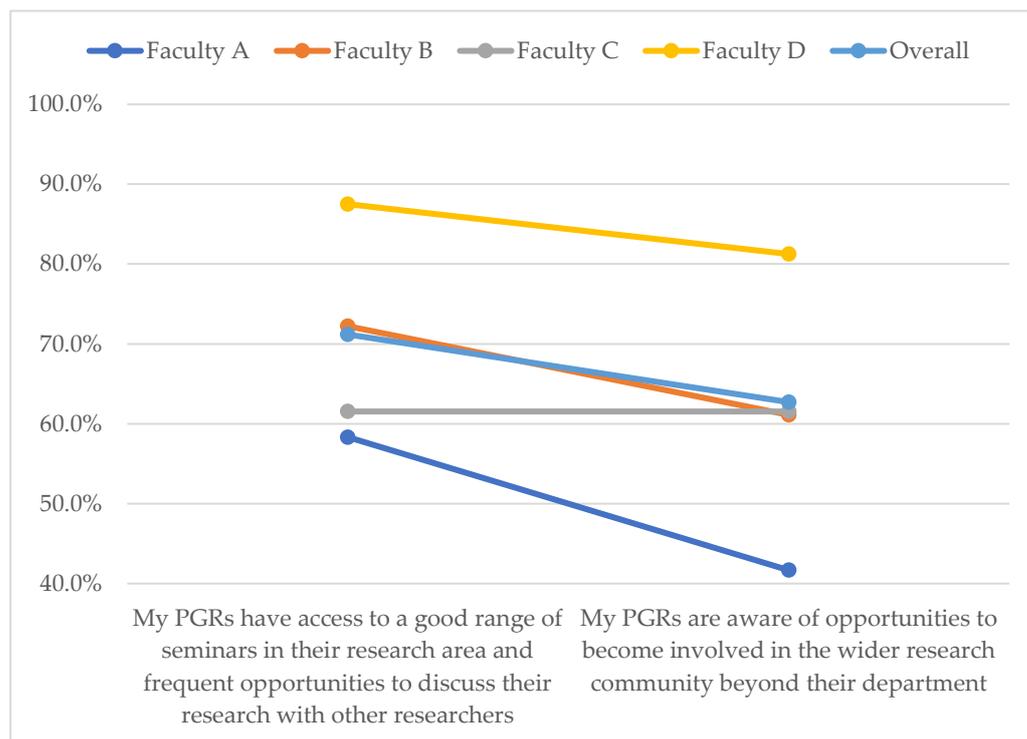


Figure 6. Scores for “Research Culture and Community” statements by faculty. Source: authors’ own work.

In line with the supervisors’ scores highlighted above, the scores from PGRs in PRES 2022 to questions about Research Culture and Community were equally low. However, it should be noted that this pattern was reflected across the sector and that the university improved within this statement area from PRES 2021 to PRES 2022, increasing 5.6% to an average of 58.1% of PGRs agreeing or strongly agreeing to the statements.

4.2.4. Progress and Assessment

Respondents were asked to respond to three statements about “Progress and Assessment”:

1. My PGRs received an appropriate induction to their research degree programme;
2. My PGRs understand the requirements and deadlines for formal monitoring of their progress;
3. My PGRs understand the required standard for their thesis and are clear about the final assessment procedures for their degree.

Overall, the average score for all Progress and Assessment questions was 88.7% across all four faculties. All faculties performed well in this area, ranging from 94.4% in Faculty A to 81.5% in Faculty B.

Statement 1 (*My PGRs received an appropriate induction to their research degree programme*) had an average score of 88.1%. Faculty scores varied from 91.7% in Faculty B to 84.6%

in Faculty C. Statement 2 (*My PGRs understand the requirements and deadlines for formal monitoring of their progress*) had an average score of 93.2%. Faculty scores varied from 100.0% in Faculty A to 88.9% in Faculty B. Statement 3 (*My PGRs understand the required standard for their thesis and are clear about the final assessment procedures for their degree*) had an average score of 84.7%. Faculty scores varied from 93.8% in Faculty D to 66.7% in Faculty B. This is further illustrated in Figure 7.

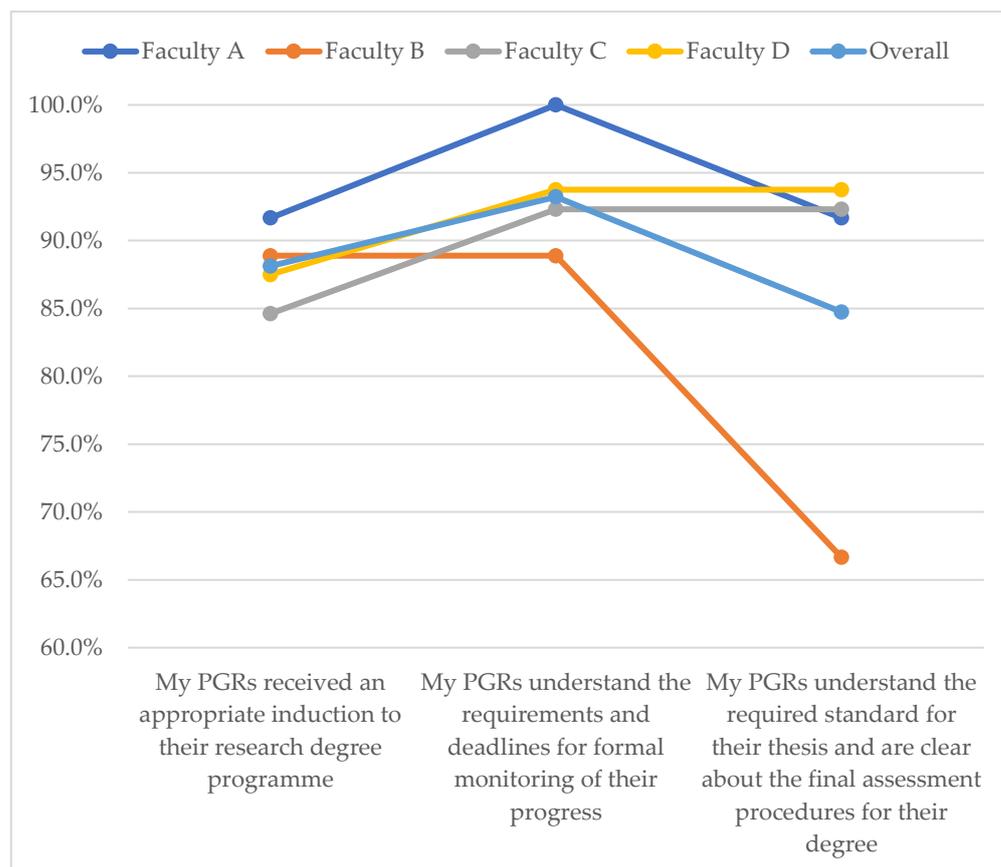


Figure 7. Scores for “Progress and Assessment” statements by faculty. Source: authors’ own work.

In line with the supervisors’ scores highlighted above, the PGRs’ scores in PRES 2022 to statements about Progress and Assessment were equally high. The university’s average score for Progress and Assessment increased from 85.8% in PRES 2021 to 87.0% in PRES 2022 (+1.2%). Furthermore, in this area, the university outperformed the sector by 7.1% in PRES 2022, above the sector on average for all statements 87.0% vs 79.9%.

4.2.5. Responsibilities

Respondents were asked to respond to three statements about “Responsibilities”:

1. The university values and responds to feedback from PGRs;
2. My PGRs understand our respective responsibilities;
3. My PGRs know who to approach if they are concerned about any aspect of their degree programme.

Overall, the average score for all Responsibilities statements was 80.8% across all four faculties. All faculties performed well in this area, ranging from 85.2% in Faculty B to 74.4% in Faculty C.

Statement 1 (*the university values and responds to feedback from PGRs*) had an average score of 64.4%. Faculty responses varied from 72.2% in Faculty B to 53.8% in Faculty C. Statement 2 (*My PGRs understand our respective responsibilities*) had an average score of 89.8%

with scores by faculty varying from 94.4% in Faculty B to 83.3% in Faculty A. Statement 3 (*My PGRs know who to approach if they are concerned about any aspect of their degree programme*) had an average score of 88.1%. Faculty scores varied from 91.7% in Faculty A to 76.9% in Faculty C. This is further illustrated in Figure 8.

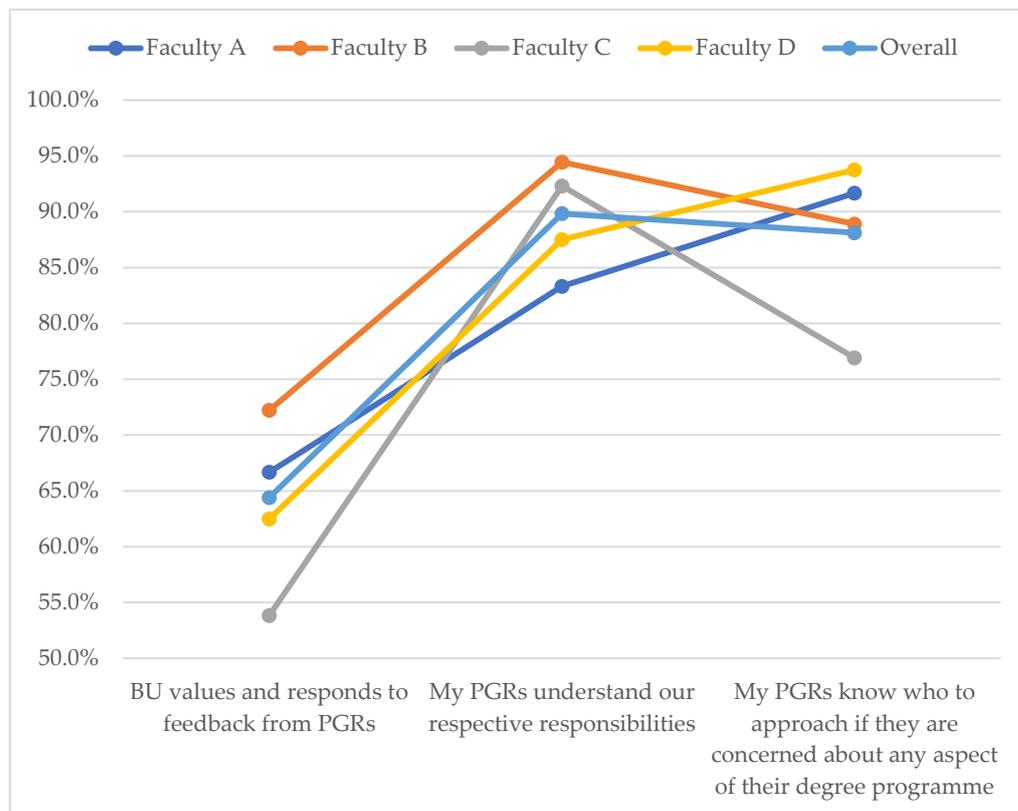


Figure 8. Scores for “Responsibilities” statements by Faculty. Source: authors’ own work.

In line with the supervisors’ scores highlighted above, the scores from PGRs in PRES 2022 to statements about Responsibilities were equally mixed. PRES 2022 highlighted that statements in this section have seen a decrease in average score, falling from 80.5% in PRES 2021 to 79.5% in PRES 2022 (−1.1%). Nevertheless, ensuring that supervisors and PGRs understand the various mechanisms for PGR feedback is a priority and further work should be undertaken to articulate how feedback from PGRs has been used to improve their support.

4.2.6. Support, including Resources

Respondents were asked to respond to four statements about “Support, including Resources”:

1. My PGRs have appropriate access to physical and online library, IT and specialist resources and facilities necessary for their research;
2. The support for academic skills offered by the university meets my PGRs’ needs;
3. The support for my PGRs health and wellbeing meets their needs (for example, student support and counselling services);
4. My PGRs receive appropriate support from wider the university’s services.

Overall, the average score for all Support, including Resources statements was 66.9% across all four faculties. This section is related to support that is wider than that from only the faculties, but supervisors demonstrated varying perceptions of PGR support at the institutional level, ranging from 73.4% in Faculty D to 60.4% in Faculty A.

Statement 1 (*My PGRs have appropriate access to physical and online library, IT and specialist resources and facilities necessary for their research*) had an average score of 81.4%. Scores at the faculty level varied from 83.3% in Faculties A and B to 76.9% in Faculty C. Statement 2 (*The support for academic skills offered by the university meets my PGRs' needs*) had an average score of 71.2%. Faculty responses varied from 77.8% in Faculty B to 58.3% in Faculty A. Statement 3 (*The support for my PGRs health and wellbeing meets their needs*) had an average score of 59.3%. By faculty, scores varied from 68.8% in Faculty A to 41.7% in Faculty C. Finally, Statement 4 (*My PGRs receive appropriate support from wider university services*) had an average score of 55.9%. Again, faculty responses varied from 68.8% in Faculty D to 46.2% in Faculty C. This is further illustrated in Figure 9.

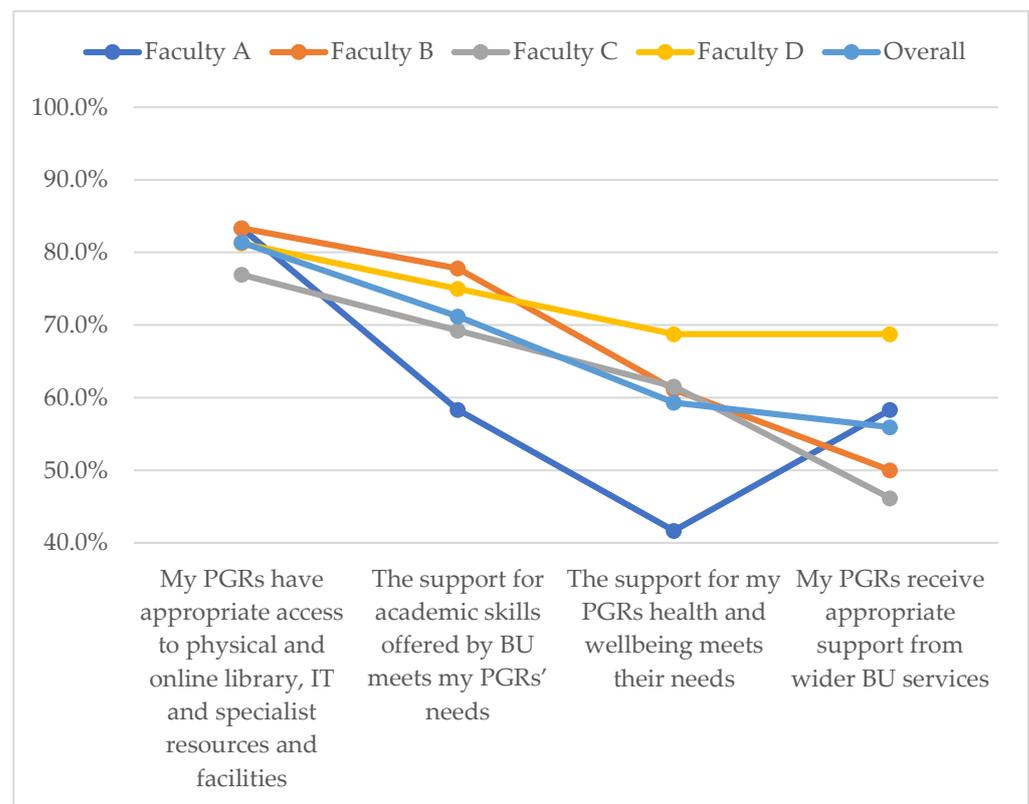


Figure 9. Scores for “Support, including Resources” statements by faculty. Source: authors’ own work.

In line with the supervisors’ scores highlighted above, the scores from PGRs in PRES 2022 to statements about Support, including Resources were equally mixed. However, PRES 2022 highlighted that the university’s average score for this question area increased from 72.2% in 2021 to 76.8% for 2022. When compared to the sector, the university performed better in both questions.

The low supervisors’ score for Statement 3 about support for PGRs’ health and wellbeing meeting their needs, particularly in Faculty A, mirrored the low score from PGRs in PRES 2022. This is particularly concerning and warrants targeted communications to PGRs and supervisors about the mental health and wellbeing support available to PGRs.

4.2.7. Research Skills

Respondents were asked to respond to two statements about “Research Skills”:

1. My PGRs’ research skills developed during their programme (for example, applying appropriate research methodologies, critical analysis and evaluation);
2. My PGRs’ understanding of ‘research integrity’ developed during their programme (e.g., rigor, ethics, transparency, attributing the contribution of others).

Overall, the average score for Research Skills questions was 91.5% across all four faculties. All faculties performed well in this area, ranging from 100.0% in Faculty A to 88.5% in Faculty C.

Statement 1 (*My PGRs' research skills developed during their programme*) had an average score of 94.9%. Scores by faculty varied from 100.0% in Faculties A and D to 88.9% in Faculty B. Statement 2 (*My PGRs' understanding of 'research integrity' developed during their programme*) had an average score of 88.1%. Faculty scores varied from 100.0% in Faculty A to 81.3% in Faculty D. This is further illustrated in Figure 10.

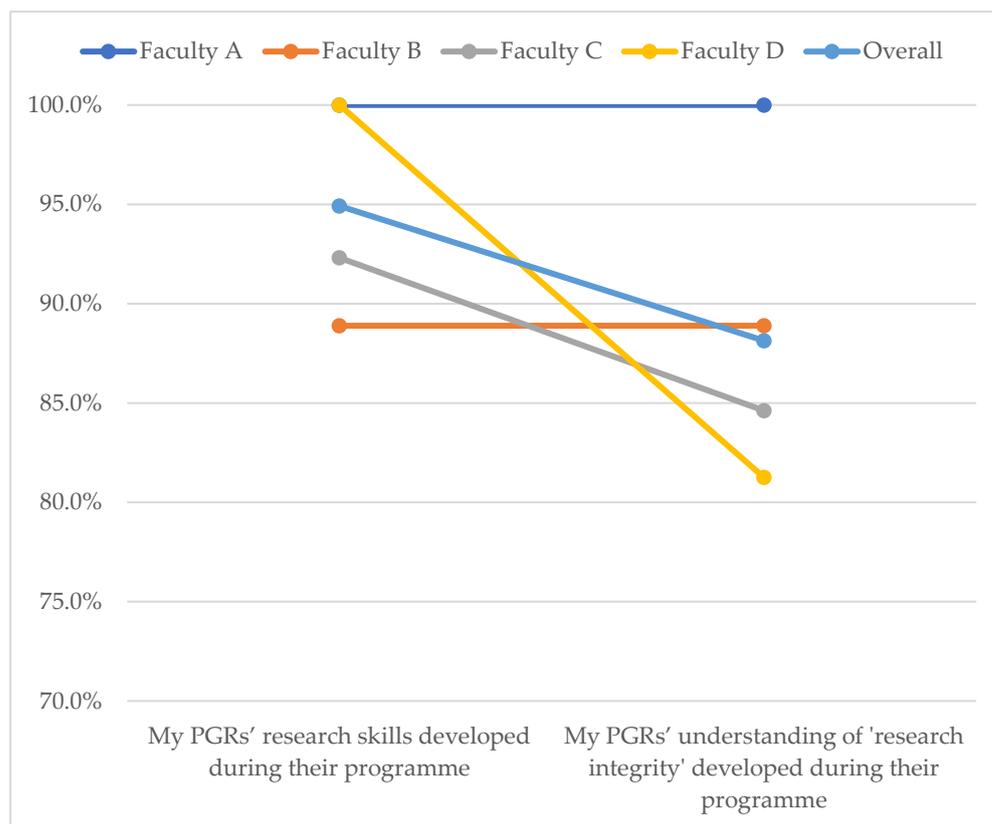


Figure 10. Scores for “Research Skills” statements by faculty. Source: authors’ own work.

In line with the supervisors’ scores highlighted above, the scores from PGRs in PRES 2022 to statements about Research Skills were similar. Scores of statements about Research Skills also saw an improvement, increasing 1.1% from 86.5% (PRES 2021) to 87.7% (PRES 2022). When compared to the sector, the university performed better in both questions.

4.2.8. Professional Development

Respondents were asked to respond to four statements about “Professional Development”:

1. My PGRs are confident to manage their own professional development;
2. My PGRs’ professional skills have improved over the course of their programme;
3. My PGRs received formal training to support their teaching (e.g., training courses, mentorship, etc);
4. As a result of their research degree programme, my PGRs are better prepared for their future careers.

Overall, the average score for all Professional Development statements was 69.5% across all four faculties. However, there were mixed scores by faculty in this area, ranging from 81.3% in Faculty D to 51.9% in Faculty C.

Statement 1 (*My PGRs are confident to manage their own professional development*) had an average score of 64.4%. Faculty scores varied from 81.3% in Faculty D to 38.5% in Faculty

C. Statement 2 (*My PGRs' professional skills have improved over the course of their programme*) had an average score of 78.0%, with faculty scores varying from 83.3% in Faculty A to 69.2% in Faculty C. Statement 3 (*My PGRs received formal training to support their teaching (e.g., Introduction to Education Practice for PGRs, mentorship, etc.)*) had an average score of 49.2%, with faculty scores ranging from 75.0% in Faculty A to 23.1% in Faculty C. Finally, Statement 4 (*As a result of their research degree programme, my PGRs are better prepared for their future careers*) had an average score of 86.4%. Again, scores by faculty ranged from 93.8% in Faculty D to 76.9% in Faculty C. This is further illustrated in Figure 11.

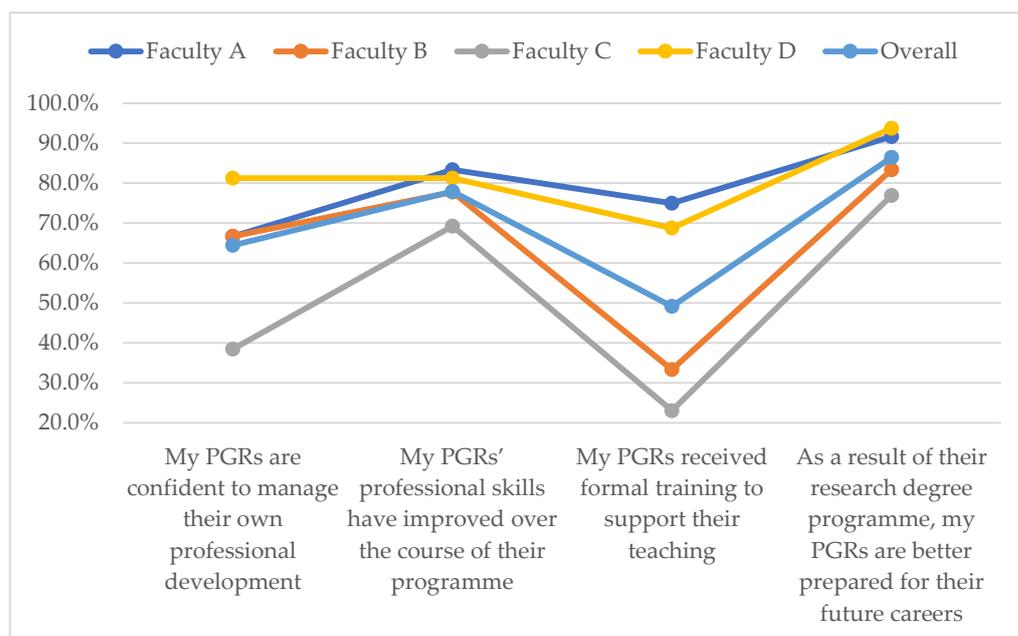


Figure 11. Scores for “Professional Development” statements by faculty. Source: authors’ own work.

The PGRs’ scores in PRES 2022 for Professional Development showed that the university was above the sector in all statements. The lowest score was related to PGRs receiving formal training to support their teaching, but this was significantly affected by low scores in Faculties B and C.

4.3. Qualitative Comments—Thematic Analysis

4.3.1. Overview

In addition to the quantitative data, survey respondents were invited to provide additional comments. Some remarks were extensive and wide-ranging in their scope, whilst others were short, but not to say terse. Inevitably, there were many observations on specific situations that are probably unique to the structure of the programmes at this university, or that may result from the way in which processes have been aligned to overarching academic regulations, policies, and procedures.

Nevertheless, many comments were reflective of the current zeitgeist of the postgraduate research sector. The mood was influenced by a broad concern for the cost of living and the impact this is having on both postgraduate research students and academic staff (supervisors). But there was also a lingering memory of the stress and uncertainty into which all were pitched, to a lesser or greater extent, by the recent pandemic.

The comments have been analysed using recursive abstraction [37–39] and grouped into codes and then into themes. These central themes reflect the key concerns of those who completed the survey and offered their views.

4.3.2. Theme 1: Experience of Supervision

Since the survey was aimed at doctoral supervisors, who were asked for their opinion of aspects underpinning supervision, the theme of ‘Supervision’ was interwoven throughout almost all of the comments in some form. However, there were many observations relating specifically to the experience of being a supervisor and these have therefore been given a theme of their own. A recurring reflection was how supervision is regarded by the wider institution:

“I feel supervisors are not given adequate credit for PGR research, progress or success. The University is very quick to contact supervisors if PGRs are not performing . . . but we are rarely credited for the work we put in, and I wonder if this also results in a lack of value and respect for supervisors from the PGRs”

Supervisor, Faculty D

“My role as a supervisor was much better acknowledged at other Institutions before coming to [the institution]”

Supervisor, Faculty D

However, the idea was also considered whether, in fact, value could be added for both supervisors and PGRs if there was a greater focus on quality assurance and more emphasis given to the oversight of supervisory teams by their faculties:

“There needs to be greater supervision of the supervisory team to ensure that they are working appropriately and effectively”

Supervisor, Faculty A

Most respondents felt that they had a clear understanding of their role and appreciated their responsibilities as supervisors, agreeing that it was their task to guide PGRs through the associated administrative processes, in addition to providing academic guidance. The reaction to the statement relating to whether their PGRs knew the process elicited the response that, to a large extent:

“This is the supervisor’s job”

Supervisor, Faculty B

There was also general agreement of the need for supervisors to work together cohesively as a team, but this aspiration came with a recognition of the inherent difficulties this may present:

“Different supervisors understand research standards differently and create confusion”

Supervisor, Faculty A

The need for cohesion, working effectively together and providing an inclusive environment within which PGRs could engage, was considered to be another responsibility of supervisors:

“The best experiences PGRs have is when they feel like they belong and are part of the department . . . Every academic should know who the PhD candidates are in their department whether they supervise them or not!”

Supervisor, Faculty C

“There’s still limited interaction between academics and PGRs beyond supervision team in my faculty. Academics don’t seem to value the contact unless they supervise someone and there are few opportunities being made available by the PGR dept leads for meaningful discussion and interactions”

Supervisor, Faculty A

This recurring theme of cohesion was developed with multiple potential benefits derived from supervisors demonstrating a more collegiate attitude being referenced: it would help to build PGRs’ identity, enhance the sense of community, assist in the development of

strong supervisory teams, and even foster a more academically challenging environment. Another thread that could be identified running through many comments was a desire for a more structured approach, particularly within individual departments, which could be further enhanced if only academics were more forthcoming in presenting their own research to PGRs:

“Every academic in the department [should] have to present their work, or a specialism, to the PhD candidates. This will also build further support systems”

Supervisor, Faculty C

“The quality of our research seminars . . . and the typology and quality of the seminar offer to our PGRs (i.e., doctoral college) could be enhanced so as to lead them to a further upgrading in their research capacity”

Supervisor, Faculty A

Similarly, there was a prevailing view on a related statement, which was the extent to which academics were engaged, at all levels of experience and seniority, with the PGR community, noting that there was a lack of:

“Willingness of our professors to deliver open research seminars to staff and PGRs (pretty uncommon)”

Supervisor, Faculty A

Another advantage to academic staff sharing their experience with PGRs was reinforcing key messages, relevant to all research. Supervisors felt that sometimes they were a lone voice to their PGRs, and, while there were some PGRs who could be receptive to advice and made themselves aware of appropriate policies and procedures, there were still others with whom it was harder to communicate:

“I give them information—for example about plagiarism and I know of one who doesn’t take it in as he should and yet others do follow the advice and [follow the] rules”

Supervisor, Faculty C

The desire for a stronger connection between those leading in the research environment and the rest of the community was also articulated. It was also acknowledged that postgraduate research represents a significant component of this, an important point for institutions to consider as they work towards REF2028:

“I think a more collegiate, academic tone, with elected positions, would foster the quality of the research in our institution, and most of it is done in the PGR environment”

Supervisor, Faculty D

A sub-theme within ‘Experience of Supervision’ was represented by a discussion about the time allocation allowed for the supervision of research degree students in the institutional workload planning model. This attracted a lot of comments, with the consensus being that the time allocation was inadequate and did not come close to reflecting the real time it takes to supervise to successful completion:

“As with research generally, more hours are needed to be an effective supervisor. PhD students need a lot of time, care, scholarly attention, and emotional labour. I give this to my students, but it goes way beyond the hours I am given. But this means that my students do well and complete on time!”

Supervisor, Faculty C

“I feel that greater consideration needs to be given to the hours allocated for PGR supervision. These hours do not truly reflect/represent the time we currently give to supporting PGRs through to successful completion”

Supervisor, Faculty D

“The time allocated . . . does not reflect the actual work put into providing feedback and attending meetings”

Supervisor, Faculty A

4.3.3. Theme 2: Research Culture and Environment

‘Research culture and environment’ was another cross-cutting theme that forms both the backdrop and context of the experience of supervising and being supervised. Inevitably, there was discussion of the persistent impact of the pandemic on both individual PGRs and their research design.

There was recognition that the university had been strong in its individualised support of PGRs during this difficult period, although there was also criticism of the way in which some groups of PGRs had not necessarily been given adequate support:

“My neutral responses chiefly reflect support for international PGRs and during COVID in particular”

Supervisor, Faculty A

Even where support had been excellent, there was concern that this had potentially raised expectations that were not necessarily being met when processes returned to ‘normal’, specifically regarding the availability of funding for specific PGR research-related activities:

“Despite the great approach and generosity during the pandemic in extending their budget”

Supervisor, Faculty D

Comments on this subject tended to relate specifically to the funding available to PGRs to publish the results of their research and tension between the fact that this research was necessarily emergent but still represented an original contribution to the body of knowledge, gathered and honed over a number of years:

“Of course, a paper produced by someone doing the PhD won’t really be ground-breaking, this is physically impossible and only happens by exception in most cases. I feel essential that none of us fears a journal submission just because is too expensive, because this is ‘the blood of the system’, more than anything else like corporate skills etc. and sometimes the result of years of work”

Supervisor, Faculty D

“PGRs must be encouraged to publish in top academic journals as part of their training”

Supervisor, Faculty A

The transformative impact of the pandemic, and the resulting closures of the campus, was acknowledged for students and staff alike. As has been recognised by post-pandemic research [40,41], the reaction of individuals varied depending on personal and unique circumstances and preferences. This lack of consensus and a feeling that hybrid models still do not quite work mean that it is difficult for an institution to meet all of the expectations, needs, and requirements of the various stakeholder groups:

“Clearly some PGRs want to be on campus and benefit from this, others need to be on campus to access resources, and some have no interest in being on campus, and so miss out on the potential benefits without even realising it”

Supervisor, Faculty A

“I don’t think running hybrid sessions works”

Supervisor, Faculty C

“However, the important aspect is that they have the resources to go to conferences and publish papers”

Supervisor, Faculty D

Presenting at seminars and conferences has long been considered an important aspect of a PGR’s development, while also being essential to their ability to successfully undertake

a viva voce examination. Accordingly, careful consideration was given as to whether PGRs were being afforded appropriate opportunities (and potentially funding) to allow them to develop the requisite skills:

“To give opportunities to present for the PGR internally is great, I just think that they indeed have already a lot, they just may not know that or other reasons, but is so easy to arrange a talk if they want to, so I do not think that is a problem”

Supervisor, Faculty D

“My other PhD students have been able to participate in many of the development opportunities, including conference presentations, afforded them”

Supervisor, Faculty B

There was also discussion about whether supervisors could contribute to a research environment that was more challenging, in a way that would be useful for PGRs in developing their skills. It was also suggested that it would be beneficial if experts with particular specialisms could be brought into departmental events:

“The research environment could offer more opportunities and be more challenging for our students . . . The first would require a more suitable budget to invite excellent external speakers”

Supervisor, Faculty A

The consideration of whether there was the budget available to support desirable activities was another cross-cutting theme.

4.3.4. Theme 3: PGR Personal and Professional Development

The discussion about the opportunities being offered across the university that contribute to ‘PGR Personal and Professional Development’ was a theme closely related to that of ‘Research Culture and Environment’. It was recognised that this support should be considered in the context of it being cross-institutional; it encompasses the central programme of support managed by the Doctoral College, that provided by faculties, and also training and events delivered at the departmental level. The model of PGRs undertaking master’s modules as uncredited and discrete courses operates in various departments and the closure of one of these courses was recognised as being likely to have a detrimental impact on research methods training:

“Recent closure of the . . . [course] has greatly depleted research methods training for PGRs in our faculty. The impact will be evidenced in:—more external courses being paid for—return to failures or major rewrites in the future”

Supervisor, Faculty B

The advantages of some training for PGRs being mandatory was considered, particularly in the first year, to be supplemented by wider departmental group work and underpinned by a central development programme:

“There should be a mandatory taught programme for two or three semesters during the first year in the faculties, per department, in addition to reading groups, presentation groups and any other centralised training”

Supervisor, Faculty C

Even while attendance at the majority of the sessions was not mandatory, the central development programme offered to PGRs via the Doctoral College attracted considerable interest and it was generally felt to be highly advantageous to have such a range of materials and facilitated workshops available:

“The new skills development program is so appealing that I would take these courses myself if I would have time, and I am not new at this”

Supervisor, Faculty D

However, concern was voiced as to whether PGRs (and sometimes supervisors) were sufficiently aware of what was on offer to them:

“I think that the researcher development programme offers some amazing training and development opportunities, but I’m not convinced that all PGRs are aware of this. They should be, but are they?”

Supervisor, Faculty A

There was some consideration of the range of training offered, particularly regarding discipline-specific needs. Understandably, there were different suggestions depending on the individual requirements and perceived needs of PGRs:

“It would be helpful to have more PhD training in humanities and arts subjects which have different methodological approaches to those on the social sciences”

Supervisor, Faculty C

“Statistics support for PGRs seems to be a real gap”

Supervisor, Faculty B

“[We] require a wider offer of advanced methodological seminars to PGRs”

Supervisor, Faculty A

A more universally acknowledged consideration, however, were the difficulties of PGRs whose programme of research, and therefore their experience, was non-standard:

“[These PGRs] miss out quite a lot on the PGR development sessions, lunchtime seminars, etc.”

Supervisor, Faculty B

“One the students who struggles to engage with workshops, development and networking sessions because they are completing their PhD alongside a busy, responsible post in the NHS. Most of the opportunities occur on days when they are working; very few occur on their research-focused day unfortunately and this is presenting an issue for them, as well as feelings of isolation and not belonging”

Supervisor, Faculty B

The difficulties of supporting PGRs who are undertaking their research alongside their careers was not unique to any one faculty. There are various programmes and specific situations, which can mean PGRs are unable to access the opportunities designed to assist them in their personal and professional development. While the library of materials that are accessible online, including recorded sessions, online courses, videos, etc., is being increased, the correlating issue of isolation and not feeling part of the culture is not easily overcome. The subject of support for the mental health and wellbeing of PGRs is considered under the next theme.

4.3.5. Theme 4: Institutional Support for PGRs

There are several sub-themes within that of ‘Institutional Support for PGRs’. First, as mentioned above, whilst it was acknowledged that the institution has supports for the mental health and wellbeing of all of its students in place, there were concerns about its efficacy, mostly due to its sheer demand amongst students:

“The reason I have said that I disagree for the question about access to wellbeing services, is that there is very high demand, and the waiting times appear to be overly lengthy”

Supervisor, Faculty B

“Where health, particularly mental health, problems have occurred, my PGR would not use the university’s services as they didn’t value them or find them useful in any way”

Supervisor, Faculty A

The financial support that the institution offers PGRs was another sub-theme that was identified. The issue was not necessarily that the university should make more funding available, or have a more generous attitude to exceptional circumstances, but rather that the departments dealing with fees should be more empathetic, particularly in the tone of their communications:

“I feel that my PGR’s could be better supported by wider financial teams—especially those from international backgrounds. The tone of this communication is often hostile and sends our students into panic”

Supervisor, Faculty C

“Many have experienced emails which are inappropriately worded”

Supervisor, Faculty C

The subject of PGRs undertaking part-time hourly paid teaching of undergraduates was a subject that provoked various observations. The consensus view was that PGRs should be offered the opportunity to teach—some even considering it should be a mandatory requirement—but that supervisors should be part of the discussion before PGRs were issued with a contract:

“Would be helpful if [managers] consult supervisors before asking our PGRs to teach”

Supervisor, Faculty C

It was generally accepted that the UKRI model of PGRs not being allowed, or even expected, to teach for more than 6 h a week was appropriate, and the valuable experience this would give them was acknowledged. However, the perceived advantages extended beyond the professional development of the individual PGR and also formed a good basis for the departmental teaching dynamic:

“We need a teaching expectation that PhDs can teach up to 6 h a week for three years and none in their fourth year (writing up). It provides stable teaching cover in a department, gives the PhDs experience, but also within boundaries. PhDs should have to apply for teaching each term and present what they are will achieve in their PhD alongside the teaching”

Supervisor, Faculty C

However, there were some cautionary comments too, and it was recognised that supervisors had a role to play in protecting their PGRs from being persuaded to undertake too much teaching. It was also suggested that the university should ensure PGRs received appropriate training:

“[PGRs] can be thrown in the deep end last minute for teaching”

Supervisor, Faculty C

The statement about whether the university provided adequate support more generally for PGRs met with mixed responses. There were a number of positive comments about some central, professional, and support services, including the Doctoral College. However, there were also some more critical observations about software and hardware issues, response times to dealing with problems, and whether PGRs were as high up the list of university priorities as, it was suggested, they should be. Some issues related specifically to the difficulties in undertaking research, with PGRs often working away from central facilities and sometimes in remote places with poor signals and connections.

Again, the cross-theme of budgets, corporate approaches to resources, and maximising expensive access to facilities came under discussion. Several programme-specific issues were raised, and various suggestions were made as to how individual processes could be improved to enhance support for PGRs in their research programmes.

4.3.6. Theme 6: Critiques of the Survey Itself

One of the notable features of the survey was that, in asking academics about their views of the supervisory experience, it was perhaps inevitable that some of their comments would be meta in nature, and they would offer their observations on the survey itself:

“Some of the questions assume knowledge of aspects that I do not have knowledge of . . . the survey could be better designed”

Supervisor, Faculty B

“I also think is convenient to be a little bit cautious on the feedback because one comment does not make the statement statistically significant (that of course applies to me too in these comments, which is why I think these surveys you do . . . are important, to pulse this)”

Supervisor, Faculty D

“For some answers I feel like answering, yes for some or most students, but notable exceptions”

Supervisor, Faculty B

“Future review would be good to gain feedback about supervisors’ own experiences of support—processes etc.”

Supervisor, Faculty B

“I have several PhD students—they all different and so out is hard to answer some of the questions with a definitive answer”

Supervisor, Faculty C

“If I was only responding according to my experiences of supervising them, I would mostly have answered ‘Agree’/‘Strongly Agree’”

Supervisor, Faculty B

But perhaps the most interesting question was how the responses provided by supervisors compared with those given by PGRs when asked some very similar questions:

“A lot of my comments are based on my assumptions and perceptions—this does not necessarily reflect what the PGRs themselves feel”

Supervisor, Faculty B

5. Discussion

This study aimed to understand how doctoral supervisors perceive the existing infrastructure and support systems for doctoral supervision in a single case study at a UK university. It also sought to identify the key factors that contribute to a positive postgraduate research environment within doctoral programmes, from the supervisors’ perspectives.

In terms of quantitative data analysis, the survey assessed how supervisors perceived various aspects of the PGR experience, including overall satisfaction, supervision, research culture and community, progress and assessment, responsibilities, support including resources, and research skills. Regarding overall satisfaction, 84.7% of supervisors agreed or strongly agreed that their PGRs were satisfied with their research degree programme. However, there were variations in satisfaction levels across different faculties, and therefore across different disciplines, with higher levels of satisfaction being related to STEM subjects (science, technology, engineering, and mathematics) compared to lower levels of satisfaction for social sciences and humanities (SSH)-based research programmes.

Supervision was generally rated highly, with an average score of 95.8% across all faculties. The highest scores were for statements related to supervisors having the necessary skills and subject knowledge to support PGRs’ research and providing feedback to direct their research activities. The lowest score was for the statement related to helping PGRs identify their training and development needs. The importance of training and development from a funders’ perspective should also not be underestimated This finding

is supported by established thinking regarding the importance of training for PGRs [42–44], but also links to the ongoing need to train doctoral supervisors [4,45].

Research culture and community received an average score of 66.9% across all faculties. This category assessed access to seminars, opportunities for research discussion, and awareness of involvement in the wider research community. Faculty D scored the highest, whilst Faculty A had the lowest score. Once again, this reflected higher levels of satisfaction related to STEM subjects compared to SSH-based research programmes. It is widely agreed across the UK higher education sector that research culture is pivotal in developing a strong and well-balanced learning environment for PGRs, but the debate continues regarding how to achieve this utopia in practice [45–48]

Progress and assessment received an average score of 88.7% across all faculties. This category assessed aspects such as induction, understanding of requirements and deadlines, and clarity about final assessment procedures. Faculty A scored the highest, while Faculty B had the lowest score. Further research is required to understand the underlying context and to explore the issues impacting upon progress [14,15], for which existing research studies have already put in place groundwork from which we can start to build [49–52].

Responsibilities, which included aspects such as valuing and responding to PGRs' feedback, understanding respective responsibilities, and knowing whom to approach with concerns, received an average score of 80.8% across all faculties. Faculty B scored the highest, whilst Faculty C had the lowest score. Again, further research is required to understand the underlying context, but also to explore how to encourage PGRs to provide high-quality constructive feedback that considers the greater good of the wider PGR community and is not only related to their own individual needs [48,52].

Support, which assessed access to resources, support for academic skills, health, and wellbeing, and wider university services, received an average score of 66.9% across all faculties. Faculty D scored the highest, while Faculty A had the lowest score. Whilst further research would elucidate the contextual factors, the authors recognise that further signposting of support already in place would be beneficial. In particular, there is already growing concern across the UK higher education sector regarding the mental health of PGRs [19,25] and increasing pressure to find better ways to support them when issues arise [26,28]. This is related to modifying the learning environment to encourage resilience and thereby reduce the likelihood of occurrences [53,54]. Ensuring that PGRs use the support services that do exist is therefore pivotal.

Research skills were rated highly, with an average score of 91.5% across all faculties. These statements assessed the development of research skills and understanding of research integrity. The centrally provided researcher development programme was received positively by doctoral supervisors and PGRs alike; however, it was noted in the qualitative comments that more specialised training, in both STEM and SSH disciplines, would be advantageous. The reality is that PGRs do need such training [55], but there is also a need for doctoral supervisors to be trained [56,57], not only in how to supervise, but often also in associated research skills, communication skills, and leadership [1].

It is worth noting that the supervisors' scores generally rated the PGRs' experience more favourably compared to the scores from the PGRs themselves in the PRES from previous years. However, there were some discrepancies between the supervisors' and PGRs' scores, particularly in the areas of support including resources and research culture and community, and this requires further investigation.

A review of the qualitative comments revealed themes relating to the experience of supervision, research culture and environment, PGR personal and professional development, institutional support for PGRs, and critiques of the survey itself.

Supervisors expressed concerns about not receiving adequate credit for their work of supervision. The importance of creating an inclusive environment and fostering strong supervisory teams was emphasised. One way to do this may be to have a more structured approach to supervision, with increased levels of interaction between the wider academic research community and PGRs. Another way that this could be accomplished is for

professors and senior academics to present their own work to the PGR community. This will both inspire them, demonstrate good practice, and foster an inclusive research community, which links to the best practice identified by Polkinghorne et al. [1].

The availability and effectiveness of opportunities for personal and professional development were highlighted. Whilst the importance of cross-institutional support, mandatory training, and discipline-specific training was raised, different preferences and expectations amongst PGRs make it challenging for institutions to meet everyone's needs. These differences are further extended with the various difficulties faced by PGRs in non-standard programmes and/or with professional requirements. Further research is required to understand how these nuanced challenges can be addressed.

Concerns were raised about the range and availability of mental health and wellbeing support services. However, the university has significantly invested in these services and further work is needed to ensure PGRs understand that these services are also available to them. Suggestions were also made for more empathetic communication from departments dealing with financial issues, as this issue can be quite emotive.

The topic of PGR teaching was discussed, including the need for supervisor consultation and appropriate training for PGRs. It is important that PGRs are provided with opportunities to undertake teaching and marking these activities as experience will develop their transferable skills and enhance their future employability.

In summary, the survey results provided interesting insights into different aspects of the PGR experience at the university, highlighting areas of strength (e.g., research skills and supervisory expertise) and areas that may require improvement (e.g., research culture and environment). The findings can be used to inform future initiatives and support mechanisms for PGRs and supervisors at this case study university.

Developing an Action Plan

Based on the findings of this study, the authors identified the following institutional actions to improve the doctoral supervision and postgraduate research environment:

1. Acknowledge the concerns expressed by supervisors regarding inadequate recognition for their work and support for their supervision efforts.
2. Consider implementing a more structured approach to supervision that encourages increased interaction between supervisors and PGRs, potentially through regular presentations by supervisors to PGR cohorts. This approach can inspire PGRs, demonstrate good practice, and foster a more inclusive community.
3. Strengthen the opportunities for effective personal and professional development, particularly with a discipline-specific focus, including the provision of cross-institutional support, elements of mandatory training, and discipline-specific training to cater to the diverse preferences and expectations of PGRs. Additionally, consider the specific challenges faced by PGRs in non-standard programmes or with professional requirements.
4. Address concerns regarding the accessibility of mental health and wellbeing services to PGRs and ensure clear and empathetic communication to assure PGRs that these services are available and accessible to them. Similarly, improve the communication from departments handling tuition fees and bursaries, recognising the emotive nature of this issue.
5. Recognise the importance of PGRs' involvement in teaching and marking activities for their transferable skills and future employability. Ensure appropriate training is in place and supervisors are consulted when employing PGRs in this capacity.

These actions, informed by the study's findings, can help to improve the doctoral supervision process and create a more positive and supportive postgraduate research environment. By addressing areas of strength and areas requiring improvement, the university can enhance the overall experience of PGRs and supervisors and foster a thriving research community.

6. Conclusions

This study aimed to explore supervisors' perceptions of the infrastructure and support systems for supervision in a UK university. It sought to identify the key factors contributing to a positive postgraduate research environment from the supervisors' perspective at a single case study university. The research findings encompassed both quantitative and qualitative data analysis, shedding light on various aspects of the postgraduate research (PGR) experience.

6.1. Considering the Research Question: How Do Doctoral Supervisors Perceive the Existing Infrastructure and Support Systems for Doctoral Supervision in a UK University?

This research study has provided a comprehensive view concerning how doctoral supervisors perceive various aspects of the existing infrastructure and support systems for doctoral supervision in a UK university. It has identified key areas of strength, including the provision of research skills training, and also areas that may require improvement, such as ensuring that the need for strong supervisory teams is acknowledged and supported across the institution. Most notably, there is a clear discrepancy between how PGRs perceive the infrastructure and support systems for doctoral supervision and their supervisor's perception. The actions identified by this study will help to bridge this difference and improve the experience of all those involved in the research degree process.

6.2. Considering the Research Question: What Do Doctoral Supervisors Consider to Be the Key Factors That Contribute to a Positive Postgraduate Research Environment for Doctoral Programmes?

This study has also provided new understanding by identifying key factors contributing to a positive postgraduate research environment according to the perspective of supervisors. These factors included PGR satisfaction, effective supervision, research culture, support, and opportunities for development. It also acknowledges areas where improvements may be needed, particularly in terms of the communications relating to support services. Again, the actions arising from this study will, in this UK university, help to strengthen all of the factors that contribute to a positive postgraduate research environment. Most notably, for example, supervisors frequently support the notion that PGRs are quasi staff members, which reinforces the misconception of many PGRs who often feel that the wider support available to all students is not for them. A focus on clear communication to all stakeholders will also ensure that this and other misnomers are clarified.

6.3. Continual Improvement

The survey results provided valuable insights into various aspects of the PGR experience from a supervisory viewpoint, highlighting both strengths and areas that require improvement. By addressing the identified areas of concern and building on the strengths, the case study university can enhance the doctoral supervision process and create a more positive and supportive postgraduate research environment as part of the continual improvement process.

Much of the discussion has focused upon student-centric activities necessary to contribute to a vibrant research community. However, this study has also revealed that there are a number of initiatives which, if undertaken by supervisors and the wider academic community, would invigorate and inspire PGRs.

One of the most interesting aspects to emerge from this research is the apparent gap in perception between supervisors and their PGRs. To better understand this identified phenomenon, this research will be continued as a longitudinal study with the survey being repeated on a biennial basis to build a larger dataset from which generalisation may be possible. In the meantime, whilst it is not possible to generalise from this study due to the small sample size, the authors encourage other establishments across the UK higher education sector to undertake a similar data collection exercise so that they can understand

the perspectives of their own doctoral supervisors' when developing future strategies and policies.

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References

- Polkinghorne, M.; Taylor, J.; Knight, F.; Stewart, N. Doctoral supervision: A best practice review. *Encyclopedia* **2023**, *3*, 46–59. [[CrossRef](#)]
- Bogle, I. 100 Years of the PhD in the UK. In Proceedings of the Vitae Researcher Development International Conference, Birmingham, UK, 11–12 September 2018.
- Gunnarsson, R.; Jonasson, G.; Billhult, A. The experience of disagreement between students and supervisors in PhD education: A qualitative study. *BMC Med. Educ.* **2013**, *13*, 134. [[CrossRef](#)] [[PubMed](#)]
- Motshoane, P.; McKenna, S. Crossing the border from candidate to supervisor: The need for appropriate development. *Teach. High. Educ.* **2021**, *26*, 387–403. [[CrossRef](#)]
- Huet, I.; Casanova, D. Exploring the professional development of doctoral supervisors through workplace learning: A literature review. *High. Educ. Res. Dev.* **2020**, *41*, 774–788. [[CrossRef](#)]
- Lee, A. How are doctoral students supervised? concepts of doctoral research supervision. *Stud. High. Educ.* **2008**, *33*, 267–281. [[CrossRef](#)]
- Wisker, G. *The Good Supervisor: Supervising Postgraduate and Undergraduate Research for Doctoral Theses and Dissertations*, 2nd ed.; Red Globe Press: New York, NY, USA, 2012.
- Muraraneza, C.; Mtshali, N.; Bvumbwe, T. Challenges in post-graduate research supervision in nursing education: Integrative review. *Nurse Educ. Today* **2020**, *89*, 104376. [[CrossRef](#)] [[PubMed](#)]
- Taylor, S.; Kiley, M.; Humphrey, R. *A Handbook for Doctoral Supervisors*, 2nd ed.; Routledge: Abingdon, UK, 2017.
- Turner, G. Learning to supervise: Four journeys. *Innov. Educ. Teach. Int.* **2015**, *52*, 86–98. [[CrossRef](#)]
- Connell, R.; Manathunga, C. On doctoral education: How to supervise a PhD, 1985–2011. *Aust. Univ. Rev.* **2012**, *54*, 5–9.
- Epigeum. *Supervising Doctoral Students*, 2nd ed.; Oxford University Press: Oxford, UK, 2020.
- Quality Assurance Agency for Higher Education. *Advice on Doctoral Standards for Research Students and Supervisors*; QAA: London, UK, 2021.
- Gower, O. *UK Research Supervision Survey—2021 Report*; UK Council for Graduate Education (UKCGE): Lichfield, UK, 2021.
- Taylor, S. *Good Supervisory Practice Framework*; UK Council for Graduate Education (UKCGE): Lichfield, UK, 2019.
- Manathunga, C.; Goozée, J. Challenging the dual assumption of the 'always/already' autonomous student and effective supervisor. *Teach. High. Educ.* **2007**, *12*, 309–322. [[CrossRef](#)]
- Andrew, K.; Richards, R.; Shiver, V. Managing the critical friendship: Using self-study in the doctoral supervision process. *Stud. Teach. Educ.* **2020**, *16*, 240–257.
- Phillips, E.; Pugh, D. *How to Get a PhD: A Handbook for Students and Their Supervisors*, 5th ed.; Open University Press: Maidenhead, UK, 2010.
- Creton, J.; Handforth, R. Considering mental health and wellbeing in postgraduate research: A critical reflection. *Stud. Grad. Postdr. Educ.* **2021**, *12*, 1–6. [[CrossRef](#)]
- Jackson, D.; Power, T.; Usher, K. Learning to be a doctoral supervisor: Experiences and views of nurse supervisors of higher degree research students. *Clinal Nurs.* **2021**, *30*, 1060–1069. [[CrossRef](#)] [[PubMed](#)]
- Devenish, R.; Dyer, S.; Jefferson, T.; Lord, L.; van Leeuwen, S.; Fazakerly, V. Peer to peer support: The disappearing work in the doctoral student experience. *High. Educ. Res. Dev.* **2009**, *28*, 59–70. [[CrossRef](#)]

22. Jara, M. Research-based doctoral supervision development programme: Learning through peer learning, reflection and case studies. *Innov. Educ. Teach. Int.* **2020**, *58*, 441–450. [CrossRef]
23. Kumar, S.; Kumar, V.; Taylor, S. *A Guide to Online Supervision*; UK Council for Graduate Education: Litchfield, UK, 2020.
24. Cantor, G. The loneliness of the long-distance (PhD) researcher. *Psychodyn. Pract.* **2020**, *26*, 56–67. [CrossRef]
25. Homer, S.; Solbrig, L.; Djama, D.; Bentley, A.; Kearns, S.; May, J. The researcher toolkit: A preventative, peer-support approach to postgraduate research student mental health. *Stud. Grad. Postdr. Educ.* **2020**, *12*, 7–25. [CrossRef]
26. Casey, C.; Harvey, O.; Taylor, J.; Knight, F.; Trenoweth, S. Exploring the wellbeing and resilience of postgraduate researchers. *Furth. High. Educ.* **2022**, *46*, 850–867. [CrossRef]
27. Levecque, K.; Anseel, F.; De Beuckelaer, A.; Van der Heyden, J.; Gisle, L. Work organization and mental health problems in PhD students. *Res. Policy* **2017**, *46*, 868–879. [CrossRef]
28. Hazell, C.; Chapman, L.; Valeix, S.; Roberts, P.; Niven, J.; Berry, C. Understanding the mental health of doctoral researchers: A mixed methods systematic review with meta-analysis and meta-synthesis. *Syst. Rev.* **2020**, *9*, 197–227. [CrossRef]
29. Metcalfe, J.; Day, E.; de Pury, J.; Dicks, A. *Catalyst Fund: Supporting Mental Health and Wellbeing for Postgraduate Research Students*; Vitae: Cambridge, UK, 2020.
30. Postgraduate Research Experience Survey (PRES). Available online: <https://www.advance-he.ac.uk/reports-publications-and-resources/postgraduate-research-experience-survey-pres> (accessed on 10 May 2023).
31. Neves, J. *Postgraduate Research Experience Survey: Sector Results Report*; Advance HE: Heslington, UK, 2022.
32. Pearson, M.; Kayrooz, C. Enabling critical reflection on research supervisory practice. *Int. J. Acad. Dev.* **2004**, *9*, 99–116. [CrossRef]
33. Bell, E.; Bryman, A.; Harley, B. *Business Research Methods*, 5th ed.; Oxford University Press: Oxford, UK, 2018.
34. Saunders, M.; Lewis, A.; Thornhill, A. *Research Methods for Business Students*, 8th ed.; Pearson: London, UK, 2019.
35. Likert, R. A Technique for the measurement of attitudes. *Arch. Psych.* **1932**, *22*, 55.
36. Polkinghorne, M.; Taylor, J. *Switching on the BBC: Using Recursive Abstraction to Undertake a Narrative Inquiry Based Investigation into the BBC's Early Strategic Business and Management Issues*; SAGE Case Studies in Business and Management Research Methods; SAGE: London, UK, 2019.
37. Polkinghorne, M.; Bobeva, M.; Shahid, S. *Managing Sustainable Projects: Analyzing Qualitative Interview Data using the Recursive Abstraction Method*; SAGE Case Studies in Business and Management Research Methods; SAGE: London, UK, 2023.
38. Polkinghorne, M.; Taylor, J. Recursive Abstraction Method for Analysing Qualitative Data. In *Encyclopaedia of Tourism Management and Marketing*; Buhalis, D., Ed.; Edward Elgar Publishing: Cheltenham, UK, 2021; pp. 636–683.
39. Online Surveys. Available online: <https://www.onlinesurveys.ac.uk> (accessed on 10 May 2023).
40. Leidner, S.; Polkinghorne, M.; Roushan, G.; Taylor, J. Evaluating Student Learning Gain: What is the Impact Upon Student Learning Resulting from the Move to Online Teaching During the COVID-19 Pandemic? In *Eurasian Business and Economics Society (EBES)*; Bilgin, M., Danis, H., Demir, E., Eds.; Springer: Cham, Switzerland, 2022; Volume 24, pp. 3–20.
41. O'Sullivan, H.; Polkinghorne, M.; Taylor, J. Investigating the Impact of the COVID-19 Pandemic on Undergraduate Education: Using Learning Gain as a Measure to Compare Two Student Cohorts. *Businesses* **2022**, *2*, 214–227. [CrossRef]
42. Polkinghorne, M.; Taylor, J.; Knight, F. *Finding the Key to Successful Doctoral Supervision*; Bournemouth University: Poole, UK, 2022.
43. Firnhaber-Baker, J. Use your supervisory powers. In *Research Professional News*; Research Professional: London, UK, 2021.
44. Casey, C.; Taylor, J.; Knight, F.; Trenoweth, S. Understanding the Mental Health of Doctoral Students. *Encyclopedia* **2023**, *3*, 1523–1536. [CrossRef]
45. Gower, O. *How Healthy Are Our Postgraduate Research Cultures?* UK Council for Graduate Education (UKCGE): Lichfield, UK, 2019.
46. Pinto, S. Encounters of cultures in doctoral supervision: Productive or problematic? *Rev. Lusófona De Educ.* **2020**, *48*, 151–167.
47. Elliot, D.; Kobayashi, S. How can PhD supervisors play a role in bridging academic cultures? *Teach. High. Educ.* **2019**, *24*, 911–929. [CrossRef]
48. Friedrich-Nel, H.; Mac Kinnon, J. The quality culture in doctoral education: Establishing the critical role of the doctoral supervisor. *Innov. Educ. Teach. Int.* **2019**, *56*, 140–149. [CrossRef]
49. Manathunga, C. Early warning signs in postgraduate research education: A different approach to ensuring timely completions. *Teach. High. Educ.* **2007**, *10*, 219–233. [CrossRef]
50. Devos, C.; Boudrenghien, G.; Van der Linden, N.; Azzi, A.; Frenay, M.; Galand, B.; Klein, O. Doctoral students' experiences leading to completion or attrition: A matter of sense, progress and distress. *Eur. J. Psychol. Educ.* **2016**, *32*, 61–77. [CrossRef]
51. Al Makhamreh, M.; Kutsyuruba, B. The role of trust in doctoral student-supervisor relationships in Canadian universities: The students' lived experiences and perspectives. *High. Educ. Theory Pract.* **2021**, *21*, 124–138.
52. Brew, A.; Peseta, T. Changing postgraduate supervision practice: A programme to encourage learning through reflection and feedback. *Innov. Educ. Teach. Int.* **2004**, *41*, 5–22. [CrossRef]
53. Bulat, A. *The UCL Good Supervision Guide*; University College London: London, UK, 2018.
54. Sverdlik, A.; Hall, N.; McAlpine, L. PhD imposter syndrome: Exploring antecedents, consequences, and implications for doctoral well-being. *Int. J. Dr. Stud.* **2020**, *15*, 737–758. [CrossRef] [PubMed]
55. Woodhouse, J.; Wood, P. Creating dialogic spaces: Developing doctoral students' critical writing skills through peer assessment. *Stud. High. Educ.* **2020**, *47*, 643–655. [CrossRef]

-
56. Richards, K.; Fletcher, T. Navigating the personal challenges and sociopolitics of doctoral supervision. *Stud. Teach. Educ. A J. Self-Study Teach. Educ. Pract.* **2019**, *15*, 260–277. [[CrossRef](#)]
 57. Cornell, B. *PhD Students and Their Careers—HEPI Policy Note 25*; Higher Education Policy Institute: Oxford, UK, 2020.

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