Report on the
2020 GSLS PhD Council Survey
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Introduction

Every year, the PhD Council of the Graduate School of Life Sciences (GSLS) at Utrecht University sends out a survey to assess the current status of PhD candidates working and doing research in the GSLS. This survey is meant to give administrators, programme coordinators, PhDs, and others concerned with the status of PhDs in the GSLS the means to assess the current status of PhDs in the GSLS and address issues that are relevant to the success and well-being of graduate researchers. The 2020 survey was developed in collaboration with PhD programme representatives of the GSLS, programme coordinators of GSLS PhD programmes, the director, managing director and coordinator of doctoral education at the GSLS, and the PhD psychologist of the University of Utrecht.

The 2020 survey was developed as a continuation of the research themes assessed in previous years. To that end, the 2019 survey was used as the starting point for the development of the 2020 survey in order to provide continuity between reports and show areas that have improved and areas that may still require attention. The 2019 survey was reviewed by the PhD Council to identify themes that were still relevant to PhDs in 2020. Compared to the 2019 survey, two sections were added which were identified as being highly relevant for PhDs in 2020. First, a section regarding diversity and inclusion was added to the survey in order to expand on questions related to safety at work. Second, the impact of COVID-19 on PhDs was assessed through a specific survey section. The final survey consisted of 121 GSLS-wide questions across 7 different topics: General PhD Information, Diversity and Inclusion, Mental Health and Well-Being, Supervisor Assessment, Teaching Responsibilities, PhD Planning, Outcomes and impact of COVID-19 and PhD satisfaction.

The majority of PhD candidates of the GSLS are part of one the 14 PhD programmes with thematic research areas. In addition to the broadly applicable subjects described above, programme specific questions were included in the survey. These questions were developed by the PhD programme representatives in the GSLS council in collaboration with their PhD programme coordinator. The results of these programme specific questions are not described in this report but in programme-specific reports. The survey was developed in English. Responses were collected in the Winter of 2020 (November to January). The findings of the survey are reported by topic with programme and faculty/institute specific information presented where relevant. At the end of each section in this report it follows a corresponding summary with recommendations drawn from the results.
General PhD Information

In total, 501 unique responses to the survey were received from the 14 different PhD programmes in the GSLS and more than 6 faculties and research institutes (see Figure 1 and 2, respectively). A portion of these respondents (N=40) was not part of one of the 14 PhD programmes. The respondents most commonly affiliated with the University Medical Center Utrecht, followed by the Utrecht University Faculty of Science, Princess Máxima Center and the Faculty of Veterinary. The sample that completed the survey is in line with the total distribution of GSLS PhD candidates over the different faculties and institutes.

Of the respondents to the survey 69.9% were female, 29.5% male, and 0.6% identifying as other. The mean age was 28.6 years (SD=4.23, range 23-66). Most of the PhDs were Dutch (68.7%). Of the non-Dutch PhDs (16.2% from an EU country and 15.2% from a non-EU country), 63% moved here in order to pursue their PhD. The distribution of starting year of the PhD track is shown in Figure 3. Most of the PhD positions were fully funded positions (82.8%) for the entire period of the PhD track with funding coming from a wide variety of different funding sources.

![Figure 1. Distribution of PhD candidates over the 14 PhD programmes of the GSLS.](image-url)
Figure 2. Distribution of PhD candidates over the different faculties and institutes.

Figure 3. Distribution of starting year of the PhD track.
Pregnancy during PhD

Eighteen females (3.6%) reported of having been pregnant during their PhD. Of these, eleven confirmed the presence of proper information accessible about the consequences of maternity leave, four reported difficulties in getting compensation for their maternity leave. Of these, three are affiliated with the UMCU institute and one with the Faculty of Science (UU).

MD- and DVM-PhDs

A large group of PhDs reported as either having a Medical Doctor (MD) degree (N=108, 21.6%) or a Doctor of Veterinary Medicine (DVM) degree (N= 12, 2.4%). About one third of MDs and DVMs (31.6%) combine their PhD with clinical duty/training. Of these, almost half (47%) state that they believe that their research would benefit by separating it from clinical duties or trainings (Figure 4).

Figure 4. Responses of PhD candidates with MD or DVM degree that combine their PhD with clinical duties and training on the question if their research would benefit by separating it from their clinical tasks.

GSLS Community

Approximately 80% of PhDs knows who their PhD programme coordinator is. However, in 10 out of 14 PhD programmes 50% or more do not know who their programme coordinator is. Concerning the PhD representative in the PhD council, even less PhDs are aware who this is (56%). The majority of the PhDs (45%) feels part of a PhD community and agrees that sufficient possibilities are provided to build a network with fellow PhDs (Figure 5). More specifically, 50% or more of the PhDs of 11 out of 14 programmes agree that sufficient possibilities have been provided. When we asked for suggestions how this could be improved, multiple responses were related to increasing visibility, e.g., better advertisement of community days, better information at the start of the PhD, and updates by the PhD council to increase their visibility.
Figure 5. Responses of PhD candidates if they feel part of a PhD community and if sufficient possibilities are provided to build a network with fellow PhDs.

**Summary**

- Of the 501 respondents to the 2020 GSLS survey, the majority (92%) belongs to one of the 14 programmes and 83% holds a fully funded position.
- Of the eighteen women who reported having been pregnant during their PhD, 22% reported difficulties in getting compensation for their maternity leave. 75% of these latter are affiliated to the UMCU.
- Of the 120 PhDs (24%) who have either a MD or a DVM, about one third combine their PhD with clinical duty/training. Of these, almost half state that they believe that their research would benefit by separating it from clinical duties or trainings.

**Recommendations**

- Make sure from the start of their PhDs that they have a funded position for their entire PhD track.
- Ensure a compensation system for maternity leave for women who get pregnant during their PhD. This is of particular relevance for UMCU.
- Provide MD/DVM PhDs with the possibility to separate their research from clinical duties or trainings.
- More visibility of representatives and programme coordinators. (Examples: Add programme coordinators and representatives to a start document for new PhDs or to the programme website.)

**Diversity & Inclusion**

The UMCU/UU regards Diversity and Inclusion as an important topic. The [UMCU](http://www.umcu.nl) and [UU](http://www.uu.nl), therefore, started an Equality, Diversity and Inclusion programmes. We also consider diversity and inclusion an
important topic at the GSLS, so this year we included this topic in the survey. Six statements regarding diversity and inclusion were asked.

The first four statements were: 1) I feel welcome and included at my institute; 2) My institute gives equal opportunities to all people, regardless of ethnicity, religion, gender, sexual orientation, and disability (i.e., physical disability, chronic disease, and/or functional disability, e.g., ADHD, ASD, Dyslexia); 3) My institute provides an environment for free and open expression of ideas, opinions and beliefs; and 4) My institute provides sufficient support to international employees who do not speak Dutch.

The results of the first four statements are shown below in Figure 6. Overall, 94% of the PhDs are feeling welcome and included (i.e. mark 6 or higher). 93% of PhDs agree that their institute provides an environment for free and open expression of ideas, opinions and beliefs, and 92% that it provides equal opportunities to all people, regardless of ethnicity, religion, gender, sexual orientation, and disability. Remarkably, more than 15% of Hubrecht PhDs do not agree that their institute provides an environment for free and open expression of ideas, opinions and beliefs. In the UMCU, PMC, UU (Veterinary Medicine) and UU (Science), 6%, 2%, 2% and 11% of PhDs disagree, respectively. 84% of PhDs believes that their institutes provide sufficient support to international employees who do not speak Dutch. This overall result is lower compared to the previous three questions. This lack of support is the highest in the institutes where care (mainly Dutch speaking employees) and research are combined, such as the PMC and UMCU. Asking non-Dutch PhDs only, more than 40% of the PMC and UMCU PhDs do not feel supported enough (i.e. mark 5 or lower), whereas 11%, 5% and 17% of non-Dutch PhDs in the Hubrecht, UU (Veterinary Medicine) and UU (Science) respectively do not feel supported enough (see Figure 7).
Figure 6. Responses of PhD candidates if their institutes provides equal opportunities, they feel welcome and included, their institutes provides an open and free environment and their institutes provides sufficient support for non-Dutch employees. (1 = completely disagree, 10 = fully agree)

Figure 7. Responses of non-Dutch PhD candidates if their institute provides sufficient support to international employees who do not speak Dutch. (1 = completely disagree, 10 = fully agree)
Overall, 1 in 10 PhDs reported personally witnessing discrimination at their institute and 1 in 25 GSLS PhDs reported being the victim of discrimination at their institute (Table 1). Results per institute are shown in Table 1.

Table 1. Responses of PhD candidates per institute if they have personally witnessed discrimination or have been the victim of discrimination at their institute.

<table>
<thead>
<tr>
<th>Institute</th>
<th>I have personally witnessed discrimination</th>
<th>I have been the victim of discrimination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hubrecht Institute</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>Faculty of Science (UU)</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Facultie of Veterinary Medicine (UU)</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>Princess Máxima Center (PMC)</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>University Medical Centre Utrecht UMCU</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Overall</td>
<td>10</td>
<td>4</td>
</tr>
</tbody>
</table>

Feelings of Safety

In addition to these questions, we wanted to identify if PhDs viewed their workplaces as being safe, since having an unsafe workspace can have a large negative impact on the mental health and well-being of PhDs. GSLS PhDs were also asked about whether they experienced their learning and working environment to be a safe place. We described a safe place as somewhere where the PhD felt they were able to work and express their thoughts and feelings freely without fear of negative response. Most of the respondents reported feeling this way completely (67.9%), but a large group only felt this way partially (25.4%). A few did not feel this way at all (6.8%), however, this was twice as many as found in 2019. The most frequently given reasons for not feeling safe had to do with their relationship with supervisors (promotor and daily supervisor), but there were other issues related to workload and relationships with other PhDs as well. Differences per institute can be seen in Figure 8.
Summary

- 1 in 10 PhDs has personally witnessed discrimination and 1 in 25 PhDs has been the victim of discrimination.
- A large fraction of non-Dutch employees feels that support for non-Dutch employees is lacking. This is especially evident in work places where care and research are combined.
- Most PhDs feel safe in their workspace, but there is an increase in the number of PhDs who do not feel safe at all since 2019.
- As this is the first year that we have directly assessed discrimination like this, it is difficult to interpret these findings because we cannot compare it to other data.

Figure 8. Responses of PhD candidates per institute if they experienced their working environment as safe.
Recommendations

- Institutes like the PMC and UMCU, have a diversity task force, to raise awareness and make the workplace more equal, diverse and inclusive. It will be interesting to see if and how these data change over the next few years. For other institutes it might be beneficial to set up something similar.
- All institutes and programmes should evaluate where discrimination may occur and how discrimination can be prevented. An active approach is needed to address this topic.
- Review the available information (e.g. news flashes) of your institutes and investigate if this information is available and sufficient enough in English.
- Safety in the workplace should be addressed and it should be investigated why the number of PhD’s not feeling safe has doubled compared to the past year.
Mental Health and Well–Being

One major concern for PhDs, and those who supervise and work with them, is the mental health and well-being of PhDs. This has never been truer than now when PhDs have been asked to adapt to changing circumstances in light of COVID-19 restrictions. Restrictions limiting the ability to work in official workspaces or host in person events have resulted in a loss of vital aspects of social support which PhDs often depend on as they develop as researchers. Mental Health and Well Being is a broad topic, but for the purpose of this survey we focused on a few specific aspects that have we think are a concern.

First, we want to understand the work-life balance of the PhDs as represented in how many hours they work per week compared to what their contract says. This has previously been reported as an issue for PhDs who find it difficult to establish a good work-life balance with all the demands of being a PhD.

Second, we wanted to assess whether PhDs perceive themselves as being in under stress. To do this we used the Perceived Stress Scale (PSS). The PSS is a 10-question scale used to measure perceived stress and the degree to which situations in one’s life are appraised as stressful. All questions are answered on a 5-point Likert scale ranging from “never”=0 to “very often”=4. We also included a 6th level of “always”=5 which was used for descriptive purposes but combined with “very often” for analysis. We calculated a norm level of 13.72 which is an approximate average score for our primary age range (21-35) based on the norm data provided for the PSS. The original scale asks about feelings of stress over the past month. We revised this to ask about feelings of stress over the past year due to the fluctuating nature of academic stress level throughout the year and the long period of data collection that we used.

Third, we wanted to identify the prevalence of burnout and feelings of emotional exhaustion, mental distance, and feelings of competence in PhD students. Burnout has recently become a topic of interest in academic communities where higher prevalence of burnout symptoms has been found. To do this we used the Utrecht Burnout Scale – General (UBOS-A). The UBOS-A was developed to measure the extent of burnout in employees across three domains:

- (Emotional) Exhaustion (U): The feeling of being completely 'empty' or 'empty' as a result of the work. This scale contains items like “I feel mentally exhausted by my work.” and “I feel tired when I get up in the morning and there is another workday in front of me.”
- Mental Distance (D): A cynical, distant and little involved attitude towards one's own work. This scale contains like “I doubt the significance of my work” and “I have become less connected to my work since starting my job.”

- Competence (C): To what extent people feel capable of doing their job well. This scale contains like “I have learned many valuable things during my PhD” and “Regarding my work, I am full of self-confidence.”

These domains are measured using 15 statements that the person needs to rate in regard to how frequently they feel this way on a 7-point Likert scale ranging from "never = 0" to "always, daily = 6". The average score per domain is used and compared to normative scores generated from an employed population who have not been diagnosed as having had a burnout. Additionally, a total score can be generated which can be used to discriminate between those with work-related neurasthenia and those without. Neurasthenia is diagnosed if a person has at least 3 months of persistent and distressing feelings of exhaustion after minor mental or physical effort. Also required is one additional symptom (muscular aches, sleep disturbance or irritability) and an inability to recover from exhaustion through rest or relaxation. If a respondent scores worse than average on all three scales, then they are likely to be diagnosed as having neurasthenia. The scale was translated from the original Dutch to English by a native Dutch speaker fluent in English in collaboration with a native English speaker fluent in Dutch. The text of the scale was revised in some questions to be more relevant to PhDs as the original questionnaire was intended for the general working population.

Finally, the UU and UMCU have many services available to PhDs in order to help them with their mental health and well-being. In order to identify areas which can be improved upon, we sought to identify which of these services PhDs know about and utilize. In addition to this, problems surrounding the PhD confidant system have previously been identified so we specifically address this service with more in-depth questions about utilization and issues. Because the PhD council made recommendations to increase mental health based on the survey results of last year, we limited changes in this section of the 2020 survey to allow for comparison. All data will be presented along with the results of the 2019 survey (where available) in order to give a better impression of whether these are static findings or issues that arose over the past year. A significance level of α=0.05 is used for all statistical analysis and any respondents with missing data were excluded listwise for analysis. T tests or ANOVAs were used to compare means of continuous variables and Kruskal-Wallis H tests were used to compare groups with ordinal data.
**Hours worked**

Most of the PhDs reported having contracts for 36 (54%), 38 (12%), or 40 (27%) hours per week (Table 2). This equates to 93% of PhDs being employed full time in their research (4-5 full working days). More than 60% of PhDs reported working more than 4 hours per week above what their contract states and 17% reported working >10 hours above (Table 3). The number of extra hours worked was not significantly related to the number of hours listed in the contract ($\chi^2(52)=58.65$, $p=0.245$).

**Table 2. Hours worked by PhD candidates**

<table>
<thead>
<tr>
<th>How many hours do you work per week according to your contract?</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>hours</td>
<td>(n, %)</td>
<td>(n, %)</td>
</tr>
<tr>
<td>≤ 16</td>
<td>3 (1)</td>
<td>11 (2)</td>
</tr>
<tr>
<td>20-24</td>
<td>8 (2)</td>
<td>10 (2)</td>
</tr>
<tr>
<td>28-34</td>
<td>32 (6)</td>
<td>23 (4)</td>
</tr>
<tr>
<td>36</td>
<td>267 (53)</td>
<td>302 (52)</td>
</tr>
<tr>
<td>38</td>
<td>57 (11)</td>
<td>52 (9)</td>
</tr>
<tr>
<td>40</td>
<td>132 (26)</td>
<td>163 (28)</td>
</tr>
<tr>
<td>&gt;40</td>
<td>2 (1)</td>
<td>16 (3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many hours do you actually work per week compared to your contract? (%)</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>hours</td>
<td>(n, %)</td>
<td>(n, %)</td>
</tr>
<tr>
<td>Significantly less (≥10h less)</td>
<td>1</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Less (4-10h less)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>More or less the amount of hours stated in my contract</td>
<td>37</td>
<td>30</td>
</tr>
<tr>
<td>More (4-10h more)</td>
<td>44</td>
<td>46</td>
</tr>
<tr>
<td>Significantly more (≥10h more)</td>
<td>17</td>
<td>22</td>
</tr>
</tbody>
</table>

These are similar patterns as seen in the 2019 survey with a slight reduction in those saying they work >10 extra hours although programme specific differences can be found in these patterns.
Stress

We found that PhDs of the GSLS generally reported higher stress levels than the population norm value of 13.72 ($M = 17.1$, $SD = 7.41$, $95\% CI = 16.48-17.78$, $p < 0.001$) and significant variance was found between the programmes ($F(14, 481) = 1.83$, $p = 0.0318$) but not between the institutes ($F(7, 488) = 0.83$, $p = 0.5668$). Most PhDs reported being under moderate stress (57.7%) followed by low stress (31.9%). Around 11% of PhDs reported feelings of high stress. Particularly striking was that 22.3% of PhDs reported feeling stressed or nervous very often or always which was similar to 2019. But, 15% reported feeling that they very often or always could not cope with all the things they had to do which is less than what was found in 2019 (25%), and 9.4% reported feeling at least fairly often that difficulties were piling up so high that they could not overcome them which also improved compared to 2019 (20%). A categorical look at the data indicated that 11% of the respondents indicate stressful feelings occurring fairly often. The distribution of PSS Scores by PhD Programme is shown in Figure 9.

![Figure 9. Distribution of Perceived Stress Scale (PSS) scores per PhD programme.](image-url)
**Burnout**

The results of the UBOS-A (Figure 10) indicate that PhDs in the GSLS score higher on scales of burnout compared to a “normal” working population. The respondents scored high or very high on Emotional Exhaustion (64.0%) with 15.4% scoring very high. This was a proportional increase in these categories compared to scores in 2019. Similarly, Mental Distance scores were primarily high or very high (49.5%) with 21.1% of respondents scoring very high. This represents a shift at the high end of the scale compared to 2019. Feelings of Competence were more normally distributed with most PhDs feeling moderately competent (44.9%) although 37.6% of PhDs ranked their competence as low or very low. This was a slight increase from 2019. Scores of Emotional Exhaustion and Mental Distance were found to be related to the PhD programme of the respondent, but not the institute where the PhD works. Of the respondents, 35 (7.0%) met the criteria for neurasthenia.

![Figure 10. Distribution of the extent of burnout-symptoms measured with the Utrecht Burnout Scale – General (UBOS-A).](image)

**Support Services Available to PhDs**

Most PhDs (62.5%) reported that they knew at least part of the services available to them (Table 4) and many reported knowing who to go to if they encounter a problem during their PhD (72.1%). However, 23.8% reported not being sure what was available and 13.2% reported not knowing about any services. Concerning the actual use, 35.7% of respondents reported that they have previously used one of these services which is less compared to 2019 (45%). A small group of respondents said that they would rather not say what services they had used (N=9, 1.8%). Daily supervisors and promotors remain the primary avenue through which PhDs seek support followed by the GSLS Course Centre. There is a downward...
trend in using the daily supervisors and promotors since 2019 which may be a result of reduced ease of access associated with working from home. The PhD psychologist has seen a more than 100% increase in utilization since 2019. The supervisory committee was not often utilized for support. Awareness appears to be key to utilization of the services as the most heard of services remain the most utilized.

One troubling aspect was that 70.5% of the PhDs did not know who their institutional confidant is which is similar to 2019 (72%), and 25.8% of respondents said that they would not feel comfortable going to their confidant if they had a problem. The primary reason given for not being comfortable going to the confidant was that the department or institution was too small to stay anonymous and there were fears of repercussions. This was followed by not knowing who this person was and previous bad experiences.

Table 4. Percentages of PhD candidates who know or used one of the support services available to them.

<table>
<thead>
<tr>
<th>Service</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Heard of</td>
<td>Used</td>
</tr>
<tr>
<td>GS-LS PhD Course Centre courses</td>
<td>283</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>90</td>
<td>22%</td>
</tr>
<tr>
<td>Daily supervisor</td>
<td>350</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>118</td>
<td>29%</td>
</tr>
<tr>
<td>Promotor</td>
<td>333</td>
<td>66%</td>
</tr>
<tr>
<td></td>
<td>101</td>
<td>25%</td>
</tr>
<tr>
<td>Academic counselor</td>
<td>23</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Supervisory Committee</td>
<td>219</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>8%</td>
</tr>
<tr>
<td>Coaches</td>
<td>59</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>3%</td>
</tr>
<tr>
<td>PhD Psychologist</td>
<td>306</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td>52</td>
<td>13%</td>
</tr>
<tr>
<td>Bedrijfscounselor</td>
<td>23</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1%</td>
</tr>
</tbody>
</table>
Summary

- PhDs report working almost a full extra day per week than what was agreed upon in their contract.
- PhDs have higher levels of perceived stress than the normal working population, comparable with results from 2019.
- High levels of Emotional Exhaustion and Mental Distance from work were found in PhDs with a trend towards higher levels compared to 2019.
- Differences in these scores are primarily associated with the programme that the PhD is in rather than the institute where they work.
- Most PhDs are aware of services available to help them with mental health and well-being offered through the UU/UMCU, with daily supervisor or promotor being the most heard of and utilized option.
- Continued attention to the mental health and well-being of PhDs is warranted based on these findings.

Recommendations

- Campaigns or processes to increase awareness of services available to PhDs are needed to ensure that PhDs know what is currently available to them and where to go for help.
- Additional programs that target specific problems like feelings of stress, emotional exhaustion, and mental distance should be added to the current services available.
- Programmes, Daily Supervisors, and Promotors need to gauge the emotional exhaustion and mental distance of their PhDs and find a way to engage PhDs with their work where needed.
- Inquiries into the mental health and well-being of daily supervisors and promotors should also be conducted in order to see if they are able to provide the support needed for PhDs.
Supervisor Assessment

Supervision and assessment of PhDs play an important role in the development of the young researcher. Often the success of the PhD is dependent on having a good working relationship with the promotor, co-promotor, and daily supervisor in which the PhDs feel that they can approach these people with both research and non-research related questions and issues. We asked PhDs how they rate their relationships with their promotor and daily supervisor (Figure 11) and the extent to which the PhD feels that these people make a positive scientific contribution to their work (Figure 12) on a scale from 0 (worst) to 10 (best). We found that the PhDs in general rated the scientific contributions of their daily supervisor (M=8.0, SD=1.7) and personal relationships with their daily supervisor (M=8.0, SD=1.6) as relatively high. The ratings for the scientific contributions (M=6.9, SD=2.4) and personal relationships (M=7.2, SD=1.8) with their promotors were slightly lower, but also satisfactory in general. Comparable results were found in 2019.

Figure 11. Rating of personal relationship of PhD with supervisor(s) and daily supervisor(s)
A comparison among PhD programmes showed that PhDs belonging to either Cancer, Stem Cells & Developmental Biology and Molecular Life Sciences programme rated the scientific contribution of their supervisor(s) the lowest. This is reflected in a large minority of PhD candidates from those programmes discussing their projects with their promotor less than once per year (Figure 13).

**Figure 12. Rating of scientific contribution to PhD of supervisor(s) and daily supervisor(s)**

**Figure 13. Programme distribution of promotors discussing project less than once per year.**
We also asked how often PhDs meet with their daily supervisor or promotor (Figure 14). The amount of contact decreased with respect to the previous year as 32.2% (43% in 2019) of PhDs reported seeing their daily supervisor weekly, and only 34.2% (83% in 2019) of PhDs at least once every two weeks. This decrease is likely a result of the COVID-19 pandemic. Regarding promotors the results were more similar to the ones collected in 2019 as they were seen less often than daily supervisor but still 62.7% (64% in 2019) of the PhDs reported seeing their promotor at least once per month.

![Figure 14. Frequency of discussion with supervisor(s) and daily supervisor(s) regarding PhD projects](image)

One large positive result that was found was in regard to education for PhDs. 88.8% of the PhDs reported that their supervisor(s) supported them in pursuing educational options including taking courses. There was a small group that wished that their supervisor would support them more in pursuing education (7.4%), and a very small group that said that their supervisor did not support them in pursuing education (3%).

The GSLS has different quality control measures put in place to ensure that PhDs are receiving quality supervision. One of these measures is a mandatory annual review meeting (beoordelingsgesprek - B&O) with the supervisors of the PhD. Most PhDs (63%) reported having had this with their supervisors in the past year. An additional 18.8% reported that they had not yet had one but expected one soon. The remaining PhDs (16.4%) said that they did not had this meeting and did not indicate that one was
planned. During these meetings, it is recommended that the PhDs review their Training and Supervisory Agreement (TSA) with their supervisors. The TSA assists in thinking about the PhDs development as a researcher and which trainings and additional aspects of academic life, such as conference attendance, will aid in this development. Only 79% (83% in 2019) of PhDs reported having a TSA, and 10.4% do not even know what a TSA is.

In addition to these meetings, PhDs and their supervisors are asked to arrange a supervisory committee of (semi-)independent researchers from their research project at the start of their PhD track. This committee can act as a neutral sounding board and source of support in cases where PhDs may not feel comfortable going to their supervisor. Only 25.3% of PhDs had met their supervisory committee in the past year (in 2019 it was 42%), 29.9% reported of not having yet met the supervisory committee, however, it is not clear whether a meeting is planned or not. 11.4% still do not have a supervisory committee and 16.2% do not know what a supervisory committee is.

**Summary**

- PhDs rated the scientific contributions of their **daily supervisor** and personal relationships with their daily supervisor as relatively high. These rates are slightly lower for their **supervisors**. Lower values were found for PhDs belonging to either the PhD programme Cancer, Stem Cells & Developmental Biology or Molecular Life Sciences.
- The amount of contact between PhDs and (daily) supervisors decreased with respect to the previous year, likely due the COVID-19 pandemic.
- 89% of the PhDs reported that their supervisor(s) supported them in pursuing educational options including taking courses.
- 16% of the PhDs did not have the mandatory annual review meeting (beoordelingsgesprek - B&O) and did not indicate that one was planned. 10% of the PhDs do not know what Training and Supervisory Agreement is.
- Only 25% of PhDs had met their supervisory committee in the past year (in 2019 it was 42%), 30% reported of not having yet met the supervisory committee, however, it is not clear whether a meeting is planned or not. 11% still do not have a supervisory committee and 16% do not know what a supervisory committee is.
Recommendations

- Effort needs to be made to improve the scientific contribution and personal relationship of supervisors with their PhDs, especially within the Cancer, Stem Cells & Developmental Biology and Molecular Life Sciences programmes. An inventory could be made what PhDs need in this regard and what they currently miss.
- Try to make sure that COVID-19 does not affect the contact between PhDs and daily supervisors or supervisors too much.
- Implement a system that makes sure that all PhDs have their mandatory annual review meeting.
- Make sure PhDs are aware of what the Training and Supervisory Agreement is by informing them properly during the introductory day.
- Educate supervisors and supervisory committees on the function and necessity of the Supervisory committee. Enforce the creation of a supervisory committee for each PhD and enable a planning system that ensures it is actively met annually. Make clear who is in charge of organizing them.
Teaching and Supervisory Responsibilities

Most PhDs reported that teaching is not a required part of their contract (63.3%), 23.2% have teaching as a required task in their contract and 13.4% do not know. Of those PhDs who reported that they had teaching responsibilities in the past year (N=198), the majority thought that the teaching load was acceptable. Only 9% reported a too high load and 5% a too low load. Regarding training in teaching, most PhDs would like to receive training through one of the courses that are already available to them (44.3%). However, a considerable percentage (40.9%) reported that they preferred not to get training in teaching.

The average number of students that PhDs supervised last year was around 1, but one third of PhDs (35.7%) did not supervise any student (Figure 15). There was a small group of PhDs (n=30) who supervised more than 5 students.

Figure 15. Distribution of number of students supervised by PhD candidates within one year
### Summary
- Of the PhDs with teaching responsibilities in the past year (40%), the majority thought that the teaching load was acceptable.
- 44% of PhDs would like to receive training in teaching; however, 41% reported that they do not need training.
- The average number of students that PhDs supervised last year was 1, but 36% of PhDs did not supervise any student.

### Recommendations
- Provide training in teaching to PhDs who are interested in it.
- Actively discuss with PhDs whether they would like to supervise students during their PhD track.
PhD Planning and Outcome

The research during a PhD track is never a straight line that does not deviate from the initial planning as time progresses. For this reason, it is important for PhDs to discuss the progress of their PhD with their supervisors to ensure that research plans are still feasible and goals attainable. PhDs reported that the frequency of discussions about the planning and duration of their PhD was more frequent with their daily supervisor compared to supervisor (promotor) (Figure 16). 20.6% of the PhDs stated that they discuss this at least once per week with their daily supervisors.

![Figure 16](image)

*Figure 16. Frequencies of discussion regarding planning and duration of PhD with supervisor(s) and daily supervisor(s)*

It is not uncommon to hear that PhDs will be unable to complete their dissertation before their contract ends. This might be caused by unforeseen delays that hinder progress, with COVID-19 as an additional factor in 2020. This likely explains why 42.4% (34.2% in 2019) of respondents were unsure if they would finish within their original contract and only 23.6% (23% in 2019) though that they would finish on time, while 17.6% (10% in 2019) reported already having a contract extension in place. The most common reason given for not finishing on time was extra time needed for analysis and writing (12.4%), followed by time needed to finish experiments (9.8%) and time to write (7.4%). With respect to 2019, these percentages are more or less similar. Regarding planning for extensions after the initial contract, only 15% (62% in 2019) said that this topic had not been discussed yet. Delays due to COVID-19 likely made
this a common topic of discussion in 2020. In the section below we focus more on the influence of COVID-19.

**Summary**
- PhDs reported that the frequency of discussions about the planning an duration of their PhD was more frequent with their daily supervisor compared to supervisor (promotor)
- 42% (34% in 2019) of PhDs were unsure if they would finish before the end of their original contract. Only 24% thought that they would finish on time. 18% reported already having a contract extension in place. These percentages are likely influenced by the impact of COVID-19 pandemic.

**Recommendations**
- Ensure proper extension/proper information regarding extension to PhDs who have been heavily impacted by COVID-19.
COVID-related questions

The most important topic that made 2020 different from the year before is COVID-19 and the restrictions related to that. The survey included multiple questions about the impact of COVID on research progress, mental well-being and feeling part of a PhD community and about the experience of working from home.

Research progress

In March 2020, labs closed down and many research projects were stalled. A majority of respondents (56%) could not work on the tasks that they had planned, mostly data collection (Figure 17). For 78% of them this caused a delay. The lockdown lowered the productivity of 60% of the respondents and the lack of spontaneous meetings resulted in a slower progress of the projects of half of the respondents. The stalled research progress due to COVID resulted in 41% of the respondents being worried that they will not finish their PhD in time. Figure 17 shows the distribution of the above results.

Figure 17. Delays in research projects as a result of the COVID-19 restrictions.
Mental health

Both the hindered research progress and reduced social contact would be expected to have an effect on mental health. A large majority of respondents (73%) indicated that not being able to interact on a face-to-face basis with their colleagues had a negative impact on their mental well-being. This was the case in all PhD programmes and institutes. A minority of respondents (31%) answered that the lockdown did not lower their level of motivation to work.

PhD community

Not being able to interact with fellow PhD candidates in real life also influenced the feeling of being part of a PhD community. Most respondents felt less part of a community (71%). Meeting peers in an online setting could partly fulfil the need to interact. Events to enable this were organized in many departments (59% of respondents) and PhD programmes (47%), with large differences between programmes (Figure 18).

Figure 18. Differences between PhD programmes in the possibilities they offer to meet peers.
Communication

When labs reopened, new rules and guidelines were put in place. For most respondents the communication about this was sufficient and clear. Some international PhD candidates (27%), however, had problems because the information was in Dutch, especially in the hospitals (55% in the UMCU, 46% in the Princess Máxima Centre). The frequency and quality of the communication with the supervisors showed a clear division: a similar fraction of respondents reported that the communication was less frequent or stayed the same. A similar pattern is seen for the quality of the communication, which is lower than before COVID-19 for half of the respondents. For the majority of respondents (57%) at least one of these aspects was lower than before COVID-19.

Working from home

Many PhD candidates had to - and still largely or exclusively do - work from home. Although having a decent home office is key to working effectively for longer periods, 24% of respondents reported not having a comfortable workspace at home. 34% did not experience sufficient support from their department or supervisor to get the equipment (desk, chair, computer, screen, etc.) to create a comfortable home office. This was especially the case for PhD candidates employed at the Hubrecht Institute (64%) (Figure 19) and candidates in the Regenerative Medicine (62%) and Clinical and

![Figure 19. Support offered by supervisors and departments to create a home office per institute.](image-url)
Experimental Neuroscience (54%) programmes (Figure 20). Being able to work comfortably at home does not only depend on the equipment, but also on not being disturbed by others. 29% did not have a place to work at home where they were not disturbed. If possible, these PhD candidates should be allowed to work at a desk in their institute.

Figure 20. Support offered by supervisors and departments to create a home office per programme.
Summary

- The majority of respondents (56%) could not work on the tasks that they had planned, mostly data collection. For 78% of them this caused delay.

- The stalled research progress due to COVID resulted in 41% of the respondents being worried that they will not finish their PhD in time.

- A large majority of respondents (73%) indicated that not being able to interact on a face-to-face basis with their colleagues had a negative impact on their mental well-being.

- The majority of respondents (69%) answered that the lockdown lowered their level of motivation to work.

- For most respondents the communication about this was sufficient and clear. International PhD candidates (27%) had problems because the information was in Dutch, especially in the hospitals (55% in the UMCU, 46% in the Princess Máxima Center).

- The majority of respondents (57%) received less supervision and/or supervision of lower quality.

- Many PhD candidates had to - and still largely or exclusively do - work from home. 34% did not experience sufficient support from their department or supervisor to get the equipment (desk, chair, computer, screen, etc.) to create a comfortable home office.

Recommendations

- There is a clear need for contract extensions.

- Because it is expected that working (partly) from home will remain important after the pandemic, departments and supervisors should invest in creating comfortable workspaces for PhD candidates at home.

- The COVID restrictions had a considerable negative self-reported impact on a vast majority of PhD candidates, which is worrisome and demands close attention. Supervisors should discuss this with their PhD candidates.

- PhD candidates should receive proper supervision on a regular basis, especially since there has been a delay in many projects making PhD candidates worry about not finishing in time.
PhD Satisfaction

After all is said and done, it seems that most of the PhDs in the GSLS are generally satisfied with their position, support, and workload. This is reflected in the generally high scores that PhDs give to their position (Figure 21) and 35.7% of PhDs reporting that they want to stay in academia after their PhD. 41.5% of the PhDs do not know whether they want to stay in academia after the PhD while only 22.4% stated they do not want to stay. This is also similar to scores from the 2019 survey.

Figure 21. Overall PhD satisfaction distribution
Conclusion

This year, compared to the previous year much less PhDs moved to the Netherlands to pursue a PhD. Most of the PhDs either do not have a supervisory committee or do not have any meeting with it. The overall relation between PhDs and (daily) supervisor(s) remained comparable to the previous year while the frequency of meetings seems to be lightly diminished (most probably related to the COVID impact on working habits).

1 in 10 PhDs has personally witnessed discrimination and 1 in 25 PhDs has been the victim of discrimination. Institutes like the PMC and UMCU, have a diversity task force, to raise awareness and make the workplace more equal, diverse and inclusive. It will be interesting to see if and how these data change over the next few years.

A large fraction of non-Dutch employees feels that support for non-Dutch employees is lacking. Especially in workplaces were care and research are combined. Review the available information (e.g. news flashes) of your institutes and investigate if this information is available and sufficient enough in English.

PhDs report working almost a full extra day per week than what was agreed upon in their contract. PhDs have higher levels of perceived stress than the normal working population, comparable with results from 2019.

Only 25% of PhDs had met their supervisory committee in the past year (in 2019 it was 42%), 30% reported of not having yet met the supervisory committee, however, it is not clear whether a meeting is planned or not. 11% still do not have a supervisory committee and 16% do not know what a supervisory committee is. Effort needs to be made to make new PhDs more aware of who their programme coordinator and GSLS representative is, what the supervisor committee and TSA is, and which GSLS services are available to them with respect to mental health and wellbeing. These information can be shared during the introductory day that every PhD has.

The stalled research progress due to COVID resulted in 41% of the respondents being worried that they will not finish their PhD in time. These findings underline the need for contract extensions.