Promovendi
Netwerk Nederland

Four Years of Contract, Five+ Years of Work

Factors Hindering and Supporting a Timely PhD Completion

A Publication of PNN | Promovendi Netwerk Nederland

Four Years of Contract, Five+ Years of Work

Factors Hindering and Supporting a Timely PhD Completion

A Publication of PNN | Promovendi Netwerk Nederland

Colofon

Digital publication

available at *hetpnn.nl*

Text

Marie Stadel, Ellen Stroemer, Lotte Weedage, Benthe van Wanrooij, Ilse Visser and Martine van der Linde, all in their capacity as board members or employees of Promovendi Netwerk Nederland.

Lay-out, cover and graphics

lis.strations, lis-strations.com

Cite this publication as

Promovendi Netwerk Nederland. (2025). Four years of contract, five+ years of work: factors hindering and supporting a timely PhD completion. *10.5281/zenodo.14946489*

PROMOVENDI NETWERK NEDERLAND

Four Years of Contract, Five+ Years of Work:

Factors Hindering and Supporting a Timely PhD Completion

intro

despite PhD contracts usually lasting **four years**, PhD candidates finish in **five years** on average.

within contract | outside

only **40% of PhD candidates** manage to finish their thesis **in 5 years or less**...

...forcing them to finish their thesis **outside of their contract time**, next to a new full-time job or under difficult financial circumstances.

2. So we were wondering: **What are the factors influencing PhD completion?**

method

piloting & preparation

Do these questions work for you?

sign-up questionnaire

How's your PhD going?

Wanna talk about it with us?

focus group discussions

11 on-site

2 online

Without my partner, I think I would have quit.

code: support from friends & family

overarching theme: supportive environment

sample

46 PhD candidates

24% recent alumni

76% in final stage

70% female

contract:

4% external

19% scholarship

76% employed

fields

43% social sciences

9% humanities

11% natural sciences

20% engineering / technology

15% medical science

2% agricultural sciences

results

I planning and scope of a PhD project

Everything was underestimated just to fit in with the grant. [...] That was unrealistic project planning.

need time completing thesis

ethical approval & data storage plan

data collection

projects not predefined

ambitious grant proposal

time to adapt to academia

II supervisor quality

additional company supervision

micromanaging

lack of structure

lack of support & guidance

culture differences

supervisory changes

interpersonal issues

autonomy & trust

setting & celebrating milestones

I am sharing my time with 14 other colleagues and not being one of the favorites. So always when I'm handing in manuscripts [...], I get it only after three months back.

III (mis)match of requirements

formal requirements

unofficial norms

supervisor expectations

If you start, they say you have this and this requirements, and it's not even an official requirement. But it's all a bit vague.

IV PhD candidate taking charge of their trajectory

You really have to be able to set your own borders and [...] take ownership of the project.

taking initiative and being proactive

developing a work schedule

open conversations

maintaining work-life balance

setting boundaries & initiating discussions

V supportive environment

Informal contact and missing that, that was the most hit and go. [...] I do need the social connection with my colleagues in order to stay motivated and inspired to keep on working.

exchange with other PhD candidates

support from friends & family

physicall illness and care responsibilities

external or professional help

VI Tension between professional development and thesis completion

[These tasks do] not make a difference in the end for you to graduate, it makes a difference for you [...] as an academic.

We found that PhD delays are often caused by an interplay of factors. Such delays in completing a PhD trajectory can have burdesome consequences, both personally and professionally - affecting career prospects, well-being, and financial stability. That is why it is crucial to make use of structural support factors.

advice

PhD planning should include time to get started, and to write up the full thesis

make **graduate schools and supervisors responsible** for timely PhD completion as well, and hold them accountable

expectations of when the PhD thesis is completed should be discussed at the beginning, and have to be feasible

PhD supervision quality is an issue of serious concern, and needs more attention

Executive Summary

The median duration of a PhD trajectory in the Netherlands currently exceeds 60 months (five years), despite most PhD contracts lasting no more than four years. This misalignment creates significant challenges for PhD candidates, many of whom are forced to complete their thesis in their own time while managing new employment or precarious financial conditions. Recognizing the increasing concerns among PhD candidates regarding completion delays, Promovendi Netwerk Nederland (PNN) initiated this study to investigate the factors influencing timely and delayed PhD completion.

This research, supported by a grant from SoFoKleS, is based on qualitative insights from 13 focus group discussions conducted in 2024. Participants included 46 PhD candidates in the final phase of their trajectory and recent graduates from universities, university medical centers (umcs), and research institutes across the Netherlands. The study identifies key factors contributing to both delayed and successful PhD completion.

PhD completion delays are rarely caused by a single factor but rather by a combination of structural, supervisory, and personal elements. This study underscores the need for more realistic project planning and a supportive PhD environment that ensures feasibility of the project, quality supervision, transparent expectations, and adequate institutional support. We provide recommendations that can help to improve PhD completion rates and may lead to a better experience for PhD candidates in the Netherlands.

Main findings

1. The planning and scope of a PhD project

PhD projects - particularly those involving data collection - are not always feasible in the given time. It is often forgotten that a PhD candidate requires start-up time (six to twelve months depending on how much preparation has to be done) as well as time to finish up (three to six months) rather than being able to conduct research full time for four years.

2. Supervision quality

Supervision of PhD candidates plays a key role in the duration and completion of the PhD. The supervisory relationship should foster trust and autonomy, fit the needs of the PhD candidates, and help structure and fulfill the project. Good and timely feedback plays an important role in this. If supervision quality is poor, or supervision is missing at all due to absence or illness, PhD candidates struggle to make progress in their PhD or face strong delays

3. (Mis)match between official regulations, unofficial norms and expectations

While rather flexible formal requirements are most common, supervisory expectations and norms in the department or research group are often overshadowing those. Lack of transparency in requirements leads to hidden workload and uncertainty, contributing to delays.

4. The PhD candidate taking charge of their trajectory

Successfully finishing a PhD on time requires proactivity of the PhD candidate. Not all PhD candidates knew this was expected of them, and some had difficulties with the expected proactivity and autonomy.

5. Supportive environment

The environment of the PhD candidate is important for a timely completion. Particularly seeking support when needed is crucial. Not all support is available within the university environment, especially not for PhD candidates with disabilities, scholarship and international PhD candidates and/or PhD candidates who experienced illness during their PhD. This significantly impacts the progress of the PhD.

6. Tension between professional development and thesis completion

Achieving a balance between doing activities that contribute towards the candidate's professional development and completing the end product (i.e., the thesis) can be challenging. When balance is lost, a delay can occur.

Recommendations

1. PhD planning should include time to get started, and to write up the full thesis.

Rather than anticipating to do four full time years of research, PhD planning should allow half a year at the beginning to get started and half a year at the end to finalize the thesis, at minimum. Starting time can be used to specify the research plan, get approval from an ethical review board, write up a data management plan, follow courses and so on. If more time is required (for example in the cases of medical ethical approvals that can take more than a year), this should be taken into account in the planning. The last half year is to be used not just to write up the thesis, but also to make sure all data is stored according to open science principles, disseminate results to the public, and so on.

2. Make graduate schools and supervisors responsible for timely PhD completion as well, and hold them accountable.

Right now, the responsibility of finishing the PhD thesis seems to lie with the PhD candidate. If they do not finish on time, they will bear most of the consequences. Graduate schools and supervisors need to foster PhD trajectories in which completion is possible within four years, and need to step in along the way if the trajectory is not going as planned. If additional tasks have to be taken up by the PhD candidate, or personal circumstances arise along the way, extensions or adaptations of the project have to be arranged.

This also means that the PhD progress should be tracked carefully by graduate schools and information about PhD completion rates should be made available. This way, one can learn from graduate schools' and supervisors' best practices on finishing a PhD on time.

3. Expectations of when the PhD thesis is completed should be discussed at the beginning, and have to be feasible.

For many PhD candidates, it is still unclear when their thesis is considered complete. Additionally, expectations might arise along the way, with supervisors requesting more chapters or studies. By stipulating what is expected of the thesis at the beginning of the trajectory, the goals of the project are clear and can be scheduled within the four years.

PhD regulations often do not include many requirements towards the PhD thesis. Rather, informal norms are set by supervisors or departments, which are often more ambitious than the formal rules. As PNN has advised before, PhD regulations need to include clear minimal requirements of what is expected from the PhD candidate, and any graduate school specific requirements should be specified at the beginning as well.

Grant proposals are often optimistically scheduled, as ambitious research proposals likely increase the opportunity of the grant being awarded. However, due to this high competition and lack of a feasibility check, many PhD projects are not feasible to begin with. They often require four full years of data collection or lab or field work. Additionally, there is often no money allocated to hire research assistants to help in large data collections. Grant providers must ensure that grant proposals include information on the feasibility, and reviewers must be asked to check for feasibility, especially of PhD projects.

4. PhD supervision quality is an issue of serious concern, and needs more attention.

Not all supervisors have the skills or know-how on how to foster autonomy among their PhD candidates, nor know how to guide PhD candidates towards successful completion. Moreover, we noticed many questionable research practices in supervision. PhD supervision needs to be taken seriously: PhD supervision teams need to include experienced supervisors, but also involved supervisors who have the time to guide their PhD candidate.

Samenvatting

Vier jaar contract, vijf+ jaar werk:

Factoren die een tijdige afronding van een promotietraject belemmeren en faciliteren

De mediane duur van een promotietraject in Nederland bedraagt momenteel meer dan 60 maanden (vijf jaar), terwijl de meeste contracten of beurzen niet langer dan vier jaar lopen. Deze mismatch creëert aanzienlijke uitdagingen voor promovendi, waarbij velen gedwongen worden hun proefschrift in hun eigen tijd af te ronden, terwijl ze tegelijkertijd op zoek moeten naar een nieuwe baan of met financiële onzekerheid kampen. Gezien de toenemende zorgen onder promovendi over vertragingen in het promotietraject, heeft Promovendi Netwerk Nederland (PNN) een onderzoek gestart om meer inzicht te krijgen in de factoren die een tijdige of vertraagde afronding beïnvloeden.

Dit onderzoek, mede mogelijk gemaakt door een subsidie van SoFoKleS, is gebaseerd op kwalitatieve inzichten uit focusgroepgesprekken die in 2024 zijn gehouden. De deelnemers bestonden uit promovendi in de laatste fase van hun traject en recent gepromoveerden van universiteiten, universitair medische centra (umc's) en onderzoeksinstituten in Nederland. De studie identificeert de belangrijkste factoren die bijdragen aan zowel vertragingen als succesvolle afrondingen van een promotietraject.

Vertragingen in de voltooiing van doctoraten worden zelden veroorzaakt door één enkele factor, maar eerder door een combinatie van structurele en persoonlijke elementen. Dit onderzoek onderstreept de noodzaak van een realistischere planning en ondersteunende omgeving die zorgt voor haalbaarheid van het onderzoeksplan, begeleiding van voldoende kwaliteit, transparante verwachtingen en adequate institutionele ondersteuning.

Belangrijkste bevindingen

1. Planning en omvang van een PhD-project

Promotietrajecten - vooral die waarbij er (veel) data worden verzameld - zijn niet altijd haalbaar in de gegeven tijd. Vaak wordt onderschat dat een promotietraject opstarttijd vergt (zes tot twaalf maanden, afhankelijk van hoeveel voorbereiding er gedaan moet worden) en tijd om af te ronden (drie tot zes maanden). Dit betekent dat promovendi niet altijd de volle vier jaar uitsluitend aan onderzoek kunnen besteden.

2. Kwaliteit van begeleiding

De begeleiding van promovendi speelt een sleutelrol in de duur en afronding van de promotie. De begeleidingsrelatie moet vertrouwen en autonomie bevorderen, aansluiten bij de behoeften van de individuele promovendus en helpen bij het structureren en uitvoeren van het project. Goede en tijdige feedback speelt hierbij een belangrijke rol. Als de kwaliteit

van de begeleiding slecht is, of als er helemaal geen begeleiding is door afwezigheid of ziekte, lopen promovendi regelmatig vertraging op.

3. (Mis)match tussen officiële voorschriften, onofficiële normen en verwachtingen

Hoewel er tamelijk flexibele formele vereisten zijn voor de afronding van een proefschrift, worden deze vaak overschaduwd door normen van de afdeling of de onderzoeksgroep. Gebrek aan transparantie in deze eisen leidt tot verborgen werkdruk en onzekerheid, wat bijdraagt aan vertragingen.

4. Promovendi nemen de leiding over hun traject

Het op tijd afronden van een PhD vereist proactiviteit van de promovendus. Niet alle promovendi weten dat dit van hen verwacht wordt, en sommigen hebben moeite met de verwachtingen op het gebied van proactiviteit en autonomie.

5. Ondersteunende omgeving

De omgeving van de promovendus is belangrijk voor een succesvolle voltooiing van het promotietraject. Hierbij is het vooral cruciaal om ondersteuning te zoeken wanneer dat nodig is. Niet alle ondersteuning is beschikbaar binnen de universitaire omgeving, vooral niet voor promovendi met een beperking, beurs- of internationale promovendi en/of promovendi die ziek werden tijdens hun promotietraject. Het niet kunnen vinden van gepaste ondersteuning heeft een aanzienlijke invloed op de voortgang van het promotietraject.

6. Spanning tussen professionele ontwikkeling en het afmaken van een proefschrift

Een balans vinden tussen het uitvoeren van taken en activiteiten die bijdragen aan de professionele ontwikkeling van de promovendus en het voltooien van het eindproduct (d.w.z., het proefschrift) kan een uitdaging zijn. Wanneer de balans zoek is, kan er vertraging optreden.

Aanbevelingen

1. In de projectplanning moet tijd worden ingepland om te beginnen en om het volledige proefschrift te schrijven.

In plaats van uit te gaan van vier volledige jaren voor onderzoek, zou de planning van het promotietraject minstens een half jaar aan het begin moeten toelaten om op te starten, en een half jaar aan het einde om het proefschrift af te ronden. In het begin kan de tijd gebruikt worden om het onderzoeksplan verder uit te werken, goedkeuring te krijgen van een ethische commissie, een datamanagementplan op te stellen of cursussen te volgen. Als er meer tijd nodig is, bijvoorbeeld in het geval van medisch-ethische goedkeuringen die meer dan een jaar in beslag kunnen nemen, moet hier in de planning rekening mee worden gehouden. Het laatste half jaar moet niet alleen worden gebruikt voor het schrijven van het proefschrift, maar ook om ervoor te zorgen dat alle gegevens worden opgeslagen volgens *open science* principes, de resultaten van de onderzoeken breder worden gecommuniceerd naar het publiek, enzovoort.

2. Maak graduate schools en begeleiders ook verantwoordelijk voor het op tijd afronden van een proefschrift, en houd hen verantwoordelijk.

Op dit moment lijkt de verantwoordelijkheid voor het afronden van het proefschrift bij de promovendi te liggen. Als ze niet op tijd klaar zijn, ligt het risico grotendeels op hun schouders. Graduate schools en begeleiders moeten ervoor zorgen dat het mogelijk is om een promotietraject binnen vier jaar af te ronden, en moeten onderweg ingrijpen als het traject niet loopt zoals gepland. Als de promovendus extra taken op zich moet nemen of als er zich persoonlijke omstandigheden voordoen, moeten er verlengingen worden geregeld of aanpassingen worden gedaan.

Dit betekent ook dat graduate schools de voortgang van promovendi zorgvuldig moeten bijhouden en dat er informatie beschikbaar moet worden gesteld over de afgeronde promoties. Op deze manier kan er geleerd worden van graduate scholen waar veel promovendi hun PhD op tijd afronden.

3. Verwachtingen over wanneer het proefschrift af is, moeten aan het begin van het traject worden besproken en moeten haalbaar zijn.

Voor veel promovendi is het onduidelijk wanneer hun proefschrift als af kan worden beschouwd. Ook gebeurt het dat de verwachtingen gaandeweg steeds uitgebreider worden, waarbij begeleiders om meer hoofdstukken of onderzoeksprojecten vragen. Door aan het begin vast te leggen wat er van het proefschrift wordt verwacht, zijn de doelen van het project duidelijk en kunnen deze binnen de vier jaar worden gepland.

Promotiereglementen bevatten vaak niet veel eisen met betrekking tot het proefschrift. In plaats daarvan worden informele normen gesteld door begeleiders of afdelingen, die vaak ambitieuzer zijn dan de formele regels. Zoals PNN al eerder heeft geadviseerd, moeten promotiereglementen duidelijke minimumeisen bevatten over wat er van de promovendus wordt verwacht. Ook eventuele specifieke eisen van de graduate school moeten aan het begin worden gespecificeerd.

Subsidievoorstellen zijn vaak erg omvangrijk, omdat ambitieuze onderzoeksvoorstellen waarschijnlijk de kans vergroten dat de subsidie wordt toegekend. Echter, door de hoge concurrentie en het gebrek aan controle op haalbaarheid zijn veel promotietrajecten al niet haalbaar om mee te beginnen. Ze vereisen vaak vier volledige jaren aan dataverzameling, onbeperkt lab- of veldwerk, en vaak is er geen geld om onderzoeksassistenten in te huren om te helpen bij grote dataverzamelingen. Subsidieverstrekkers moeten ervoor zorgen dat subsidievoorstellen informatie bevatten over de haalbaarheid, en beoordelaars moeten gevraagd worden om de haalbaarheid te controleren, vooral voor promotieprojecten.

4. De kwaliteit van promovendibegeleiding is een punt van grote zorg en moet meer aandacht krijgen.

Niet alle promotoren beschikken over de vaardigheden of kennis en kunde om autonomie bij hun promovendi te bevorderen, of weten hoe ze promovendi moeten begeleiden naar een succesvolle voltooiing. Daarnaast hoorden we veel over twijfelachtige onderzoekspraktijken in de begeleiding. Promovendibegeleiding moet serieus genomen worden: begeleidingsteams moeten bestaan uit ervaren, maar ook betrokken begeleiders, die de tijd nemen om een promotietraject te begeleiden.

Contents

Introduction

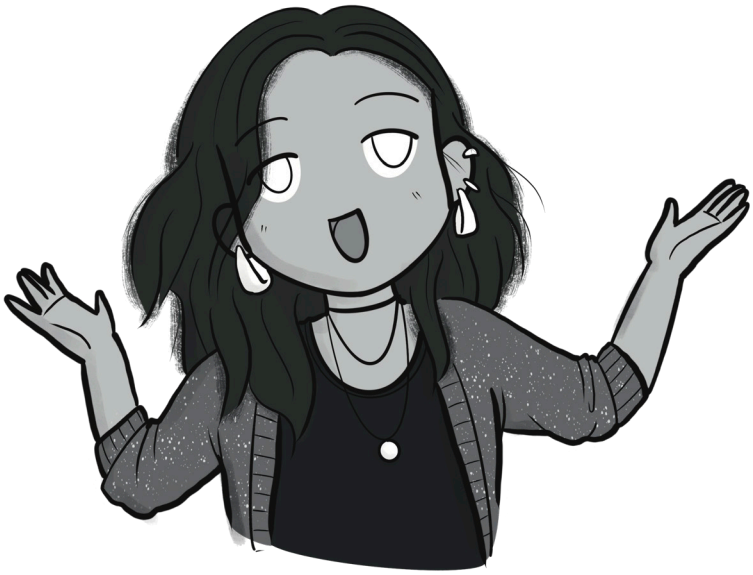
The median PhD trajectory in the Netherlands currently takes approximately 60 months (five years) until the defense, even though most employment contracts or scholarships last at maximum four years.[1] This mismatch in expected versus actual time spent on the PhD poses significant challenges for many PhD candidates at the end of their PhD. Often, they have to finish their thesis in their own time, whilst working on a new job or receiving (illegal) unemployment benefits.[2] Others decide to not finish their PhD at all.

Promovendi Netwerk Nederland (PNN) is increasingly receiving questions and concerns from its members and individual PhD candidates about delays in PhD trajectories (i.e., the completion of the thesis taking longer than the contract time) and finishing a thesis under unemployment benefits. At the same time, universities are introducing measures to accelerate PhD completion, such as financial incentives for departments to ensure PhD candidates finish on time,[3] or by imposing a bench fee for those exceeding their contract period.[4] However, such measures can cause extra stress and workload on the individual PhD candidates. In response to these signals, PNN initiated the research that led to this report - a series of focus groups collecting data on the experiences of PhD candidates in order to gain insight factors contributing to delay or timely completion of a PhD thesis.

PhD trajectories taking longer than the contract time is not a new phenomenon, and has been studied before. Already in 1993, a study in the Dutch context was published on progress in the PhD trajectory,[5] which highlighted that more than one third of the PhD candidates at the University of Amsterdam had a delay of more than six months. In 2001, only 40% of the PhD candidates in the Netherlands finished their thesis in less than five years.[6] Previous research on PhD completion rates in 2005 indicated that factors such as clearly defining the research scope of the project, supervision, and peer culture influence the successful completion of the PhD thesis.[7] A 2013 study further examined predictors of delay, citing issues such as insufficient supervision (e.g., lack of time, skills, or project management support), heavy teaching responsibilities, social isolation, and the competence profile of the PhD candidate.[8] However, one might argue that since 2013 academia has gone through changes that might have altered the factors that play a role in PhD delays. For example, PhD candidates report that more requirements are being imposed, such as obtaining a University Teaching Qualification (UTQ), complying with the General Data Protection Regulation (GDPR), and adopting open science practices. Additionally, review processes have slowed, and conference calls are often overcrowded. These signs from PNN's network gave cause for us to further investigate this continuous problem.

For the purpose of this report, we define **PhD delays** as not submitting a PhD thesis within the duration originally set at the start of the PhD trajectory. There are only a few instances in which delays are compensated for after the beginning of the PhD trajectory, such as parental leave. In general, most delays result in PhD candidates working on their PhD thesis longer than they have anticipated, often without funding.

Most published data on **PhD completion** measures the time up to the official graduation, which includes the PhD defense. For example, the median PhD trajectory we discussed earlier is based on the graduation date. However, PhD candidates often consider their thesis submission as the moment of completion rather than the defense. After the submission, the PhD candidate has little influence on the further trajectory and delays that occur in this period are often related to the availability of defense dates and the duration of formal procedures. Therefore, in the remainder of this report we will focus on the duration from the start of the PhD until the submission of the thesis.



By virtue of a grant from SoFoKleS, we here present our research on the factors contributing to delay or timely completion of a thesis based on focus groups that were conducted in October 2024. The participants were PhD candidates in the final phase of their trajectory and recent graduates from universities, university medical centers (umcs), and research institutes. The goal of these discussions was to learn more about the experiences of current PhD candidates and alumni regarding the completion of their trajectory within the planned time frame, and to identify which factors affect this process. In this report we present the findings of these focus groups and offer insights into the experiences of PhD candidates concerning factors influencing the completion of a PhD degree. Based on the findings of these focus groups, we make recommendations on how all parties involved in a PhD trajectory (i.e., universities, graduate schools, departments, supervisors and candidates themselves) can contribute to a successful completion of the PhD thesis within given contract time.

Method

In the spring of 2024, Promovendi Netwerk Nederland (PNN) successfully submitted a research proposal and received a grant from SoFoKleS, the social fund for the knowledge sector to address a significant issue concerning PhD candidates: a gap between the planned and actual duration of a PhD trajectory. To capture a broad range of experiences, PNN decided to conduct a qualitative study into factors behind the PhD completion. By using focus group methods, we were able to gain detailed insight into the experiences of a diverse group of PhD candidates.

Population

We aimed at capturing the experiences of the diverse group of PhD candidates in the Netherlands. This includes different contract types (scholarship, external, employed), various fields, and different institutions, as well as the experience of both Dutch and international PhD candidates. Recruitment took place via social media, PNN's newsletter and by requesting local PhD organizations and graduate schools to share the call for participants. Specifically, we invited recent alumni (i.e., those who defended within the last year) and PhD candidates in the final phase of their trajectory (i.e., those in the final year of their contract) to join our study, to ensure their experiences closely reflected the PhD completion phase.

Sample

In total 189 (former) PhD candidates responded to our call by accessing the sign-up questionnaire. Of these, 115 candidates indicated their availability for one of the focus group discussions. Ultimately we included 46 PhD candidates (70% female) across the 13 focus group discussions. Group sizes ranged from two to five participants per discussion group (see Table 1). Of the 46 participants, most were still working on completing their PhD (N = 35) and nine were recent graduates (defended no longer than one year ago).

The majority of the participants was employed at a university or umc (35, 76%), nine worked on a scholarship contract and two classified themselves as external PhD candidates. When comparing this distribution the overall population of PhD candidates in the Netherlands,[9] other contract types than being an employed PhD are somewhat underrepresented. Almost all Dutch universities (with the exception of Maastricht university) were represented in the sample and five candidates from

different university medical centers took part in the discussions. The vast majority of participants work in the social sciences, followed by technology. Our sample is slightly overrepresented for social and behavioural sciences, whereas we miss some representation from the technical and medical sciences. A full description of the sample compared to the population can be found in Appendix II.

Table 1. Overview of number of participants per focus group

Group	Utrecht	Groningen	Amsterdam	Rotterdam	Eindhoven	Online
Group 1	3	2	4	2	4	3
Group 2	-	4	3	4	3	5
Group 3	-	-	5	-	4	-

Note. A dash (-) indicates that no group was conducted in that location.

Procedure

Piloting & preparation. To prepare the discussion guide (shown in Appendix A) we held a trial focus group with three participants. Since this discussion went well and provided valuable insights, we included the results of this trial focus group as well (with consent from the participants). No major changes were implemented in the discussion guide besides extending the scheduled time for each focus group discussion (90 minutes instead of 60).

Sign-up questionnaire. All other participants were asked to complete an online sign-up questionnaire that assessed demographic variables, details about their PhD contract, their expected finishing date and whether they perceive themselves as on- or off-track. This questionnaire also inquired about the participants' availability for the planned focus group dates and locations. Based on the provided data, participants were assigned to focus groups, aiming to capture diverse perspectives, while ensuring that candidates with an on-track trajectory were not grouped with those with an off-track trajectory, to maintain the openness of the discussion.

Focus group discussion. Ultimately, we conducted 11 in-person focus groups as well as two online focus groups in October 2024. All discussions were led by the same interviewer and an additional PNN board member was present to take notes. The discussions were audio recorded, and participants were asked to give consent to this beforehand. After the discussion, participants received a written summary of the discussed topics and had a chance to clarify or remove information. Additionally, participants received the report before its final publication to provide feedback and indicate whether they would like specific quotes removed. All feedback we received was positive, and did not lead to any changes.

Data analysis

Initial transcription was done using a locally installed (offline) version Whisper.ai. The manuscripts were then manually checked and cleaned, including identifying separate speakers and adding punctuation. Directly identifiable information was removed from the transcripts. During the cleaning process, the researchers familiarized themselves with the data and started to identify potentially relevant codes and quotes. Subsequently, all transcripts were coded by one researcher, who had weekly meetings with another researcher, to discuss codes, refine the codebook and identify overarching themes.

Results

Factors that contribute to PhD delays and successful completion

Factor #1 The planning and scope of a PhD project

Often, the scope of a PhD project in terms of the research to be done is too large and not feasible to be conducted in the available time, which can have multiple reasons. When entering a PhD trajectory, participants are often relatively new to conducting research and might ***need time to adapt to academia***. Participants explained that, at the beginning of the PhD trajectory, there are often many contractual or administrative actions to figure out. For example, they have to identify contacts or collaborators for specific tasks or find support in creating protocols (*"I had to figure* [...] *out who did what and where to find even people who could help me with protocols or how things worked.* [...] *It really took like many months."*). Especially international candidates need additional time to understand and adapt to the system (*"Those of us who don't speak Dutch and who come from different countries, we take a little bit more time to understand how the university operates."*). This time is often not considered in the planning of the project.

Moreover, obtaining research funding might require writing an ***ambitious grant proposal***. Such proposals often underestimate the resources, time, or expertise that is needed to successfully complete the project. Participants told that as a result their PhD planning was often not feasible to begin with: not everything would fit within the years for which the grant was obtained (*"everything was underestimated just to fit in with the grant.* [...] *I had one year to analyze all my data, write all my papers and my dissertation and you cannot do that so that was unrealistic project planning* [...] *from the get-go."*).

In many cases projects are only partially defined at the beginning of the PhD trajectory and in some cases ***projects are not predefined at all***. In such cases the start up time also includes defining the project and writing a concrete proposal before conducting any research (*"There was no project, no pre-described research question. It was just like, we trust you."*).

Particularly ***data collection*** is perceived as very time consuming and burdensome, with difficulties varying across the different fields and project types. When data is collected, many more challenges may play a role, for example, the recruitment of a specific or vulnerable group or the availability of needed equipment. Additionally, unforeseen events may impact or delay the data collection process (*"Some of the field work had to be cancelled because of conflict escalation that was a little bit foreseeable. Then COVID happened."*). As the project progresses, it might further expand which contributes to delays (*"My project grew over time. In the beginning we [were] thinking about including 120 children and not 214."*). In such cases flexibility or adaptation of the original plan is needed which is not always possible (e.g., due to grant requirements) or desired by the supervisor, impacting the progress and completion of the PhD trajectory.

Obtaining ethical approval and ***drafting a data storage plan*** are central parts of the preparatory phase of a data collection. Depending on the project support from legal departments, privacy officers or data stewards may be needed. For instance, legal support is needed for data sharing or collaboration agreements. Participants often had to wait for many months on the outcome of legal support. Departments and supervisors often underestimate the time needed to get this sorted,

given that ethical approvals have become more extensive and many legal requirements have only emerged in the past years (*"As soon as humans got involved for the qualitative part, we thought three months would be more than enough* [for the ethical approval] *but it turned out we needed more than double."*).

At the end of the trajectory, PhD candidates ***need time for completing their thesis***, to write a general introduction and discussion, and fulfill data storage requirements. (*"We have the papers as chapters, but then you have to write the introduction and discussion of your thesis and that's basically two separate papers. And I think a lot of people underestimate how much time is in that."*). This component is often not considered when the scope of a PhD project is defined, eventually leading to a lack of time at the end. In some cases, candidates are even expected to conduct research until the end of their contract (*"I also know from PhDs that are not encouraged to write.* [...] *Until the last day of your contract you'll be in the lab.* [...] *The writing [you do] afterwards, because that's not the real science."*). This leads to situations where PhD candidates do not have the ability to wrap up their PhD within the contract time, as there is no time left for writing an essential part of the thesis: introduction, discussion and rewriting the thesis as a whole.

Conclusion #1

PhD projects - particularly those involving data collection - are not always feasible in the given time. Often it is forgotten that a PhD trajectory requires start-up time (6-12 months depending on how much preparation has been done) as well as time to finish up (3-6 months) rather than being able to conduct research full time for 4 years.

Factor #2 Supervision quality

Some participants experienced ***lack of support and guidance by their supervisors***. Supervisors were often very busy and unable to dedicate sufficient time to the project of the candidate (*"I never have a conversation of more than ten minutes with my supervisor."*). Many participants reported that they waited for weeks or even months for feedback on their work, and even had to remind their supervisors multiple times to review their work (*"The PhDs have to literally print it out, put it on their chair, and then maybe they'll look at it."*). Others criticized that there were too many feedback rounds with overly nitpicky or unconstructive comments (*"I get another round of feedback but now you're* [the supervisor] *just changing words that are kind of the same but just sound better or look better, so it was not really necessary all of the time."*), pointing out that ***micromanaging*** the project delayed their progress.

Although most candidates reported having two or more supervisors on paper and thus expected support from multiple supervisors, the involvement of some second supervisors – often the promoter – was minimal (*"I'm one out of 15 PhDs that he's supervising. So, he doesn't know* [...] *who I am, what I'm doing."*). Due to the lack of support and feedback, PhD candidates felt that their supervisors were delaying their project as they had to wait for approval, could not submit an article or could not continue with a next project.

When having both ***company-related*** and university-related supervision, which is often the case for externally-funded PhD candidates, a diffusion of responsibility can occur, with neither side feeling responsible for the candidate. This makes the role of the supervisor even more crucial. Additionally, many candidates struggle with balancing the demands and and goals of the involved parties which might result in additional workload.

Some candidates reported that they experienced a ***lack of structure***, such as the absence of deadlines, even after requesting those explicitly (*"I would have wanted a bit more structure given to me... or a lot more structure. I even asked for it on several occasions, but my supervisors are very hands-off."*).

Additionally, limited understanding of mental health challenges, and a very strong focus on output quantity rather than the professional development of the candidate were also mentioned (*"I mean they tried to have some idea or talk about mental health, but it was also, 'Okay, how are you feeling? Not so great? Well, maybe you can try to work a little bit less, but also you need to finish the paper.'"*). While some candidates reported positive experiences with supervisors who were flexible and willing to adapt to their needs, others reported little understanding and support. Even after explicitly requesting adaptations, such as clearer structures or modified workflows, these were not always implemented, which contributed to delays and frustration.

Sometimes, ***interpersonal issues***, such as poor PhD-supervisor relationships or even suggestions of questionable research practices, contributed to these difficulties (*"I had null results and we were like looking on into all these different avenues of how to kind of add stuff,* [...] *because we're like 'well, this can't stand on its own now, that there are no results'."*). In some cases, these problems were increased by misunderstandings and miscommunications in the team. (*"I also had this constant back and forth where it wasn't clear what the expectations were."*). ***Cultural differences*** within the supervision team and the candidate can lead to challenges during the trajectory, with different expectations between candidates and their supervisors.

In some cases, PhD candidates experienced supervisor difficulties that led to ***supervisory changes***, which significantly impacted the progress of their PhD. Multiple candidates experienced supervisors who joined the team later or supervisors who stopped their involvement in the project. Reasons for this were disagreements about the project (*"At a certain point I was like 'no, I think I want to do an original survey', and then she kind of like lost interest."*), early retirement (*"My supervisor retired during my project.* [...] *He was like 'yeah, I haven't been enjoying the whole COVID situation and I go to retire early'"*), long-term illness and connected sick leave or changing employment (*"I was supervisor-free for, I think, one and a half years* [...] *his new jobs were no longer really related to my topic."*). Changes often resulted in a period of no adequate supervision, and was followed by both the candidate and the new supervisor adapting to each other's working styles. Changes sometimes also had negative effects on the PhD candidate's mental health which further contributed to delays. While new supervisors sometimes proved highly beneficial, especially when they brought the necessary expertise to support the project, others were not a good match, which posed new challenges and further delayed progress (*"He put me in a different team and he thought that she would be a really good match.* [...] *Then the match wasn't really good and then I stayed with the colleague, but she left."*).

A particularly helpful supervisory strategy that was mentioned by candidates during our focus group was ***setting and celebrating milestones***, as these help PhD candidates stay motivated. Those might include bigger milestones such as submitting a paper but also smaller ones such as obtaining ethical approval. It seems crucial that both the candidate and the supervisor are involved in the setting and celebrating of the milestones (*"My team, already from the start, made a good effort in celebrating small things like not just celebrating when the paper is published but when you submit it like we celebrated that as the main achievement and whatever comes after is like a nice add-on."*). Celebrating (and having) such milestones helped the participants in staying motivated to finish their project. Participants also shared the other side of this, where no milestones were celebrated and they lost motivation, for example after receiving many rejections for an article that was submitted to very high-impact journals.

Many candidates also mentioned perceived ***autonomy and trust*** during the project management to be motivating if they are still guided and supported when needed. (*"What they expected from me is that you are independent from the very beginning. So, it's up to you what you do in your research."*).

Conclusion #2

Supervision of PhD candidates plays a key role in the duration and completion of the PhD. The supervisory relationship should foster trust and autonomy, fit the needs of the PhD candidates, and should help structure and fulfill the project. Good and timely feedback plays an important role in this. If supervisor quality is poor, or supervision is missing at all due to absence or illness, PhD candidates struggle to make progress in their PhD or face strong delays.

Factor #3 (Mis)match between official regulations for PhD completion, unofficial norms and supervisory expectations

Formal requirements are often specified by the university or graduate school, and determine when a PhD thesis is considered ready for submission to the committee, e.g. the number of papers that have to be included in an article-based thesis or the word count in a monograph-based thesis. These requirements are in many cases rather broad and flexible. Participants brought forward that: *"They say that it has a guideline for it, but then, as far as I know, it's only a maximum of 70,000 [words]. It's only that. How many chapters [it] doesn't say there."*. Requirements concerning the number of articles or chapters mostly seem to exist on the graduate school or department level and are often ***unofficial norms*** (*"The department is just trying to push everybody but there's actually no written down basis for it."*). These requirements are not always communicated openly, especially not at the start of a PhD trajectory, causing a lack of transparency and inequality (*"Floating norms that vary from person to person, even, and depending on who you work with, you will get different guidelines. And that might be okay, but it creates a system where people also experience different levels of stress."*). These floating norms create unclear expectations for the PhD candidates and make it difficult to assess whether they are still on schedule for finishing within the contract duration.

More importantly, there are the ***supervisors' expectations*** regarding thesis content and structure that appear to ultimately define the thesis requirements as candidates cannot submit without their supervisors' approval (*"It's enough to submit when your supervisor says it's enough to submit."*). Supervisors typically expect a minimum number of papers/chapters (*"I was like kind of playing with the idea of only including three papers, and my supervisor was very clear that they do not think this is an option."*), but beyond that, supervisors often also expect the publication of articles, collection of data or the completion of lab work and other experiments that contribute to their own career development. Candidates mentioned that the communication about supervisor expectations is not always clear or in line with graduate school or university guidelines. Especially with regards to the publication of articles, supervisor expectations often mismatch official thesis requirements.

Expectations might also shift during the PhD progress, with some candidates explaining that supervisors add demands, even when already approaching the end of their trajectory (*"My supervisors extended my research project after I started it. My main research proposal included comparing two countries* [...] *but they wanted me to add [two other countries] to my comparison."*). Moreover, some candidates feel like supervisors avoid naming concrete completion requirements in order to maximize output (*"People really don't want to talk about the specifics actually and very actively evade* [...] *conversations about these goals because they kind of just do want as many published full papers as possible."*). Sometimes supervisors may also be led by insecurity or by wanting to protect their reputation (*"I think they* [...] *they think okay this would be good enough for me, and then they add a little bit extra to reduce the risk."*). All in all, respondents note that the expectations of the supervisor can play a role in delays in the PhD trajectory, as these might overburden the project, or add on additional tasks at a later moment.

While there are rather flexible formal requirements, supervisory expectations and norms in the department or research group are often overshadowing those. Lack of transparency in requirements leads to hidden workload and uncertainty, contributing to delays.

Conclusion #3

Factor #4 The PhD candidate taking charge of their trajectory

During the focus group discussions, multiple topics came up that concern the PhD candidate directly and that can positively influence the duration of a PhD trajectory. Mainly PhD candidates or graduates who finished on time shared these experiences of taking charge of their PhD trajectory.

Taking initiative and being proactive during the trajectory was identified as a factor for success. Candidates who actively took responsibility for their projects, reached out for help when needed, and openly communicated with their supervisors were likely to have a greater sense of control and confidence in their actions, which they felt was necessary for a successful completion (*"You really have to be able to set your own borders and* [...] *take ownership of the project and the management."*).

Moreover, following a routine in a PhD trajectory is essential for efficient self-management. Therefore, candidates emphasized that ***developing an individualized work schedule*** helped to sustain performance and motivation. In such a work schedule they might specify the number of tasks per day as well as their timing, with productive times varying between individuals (*"I just worked at night. And from home. And I didn't work at all during the day. And I did that for two weeks and I wrote a whole paper."*). While some appreciated diversity in their daily tasks, such as engaging in teaching tasks and side projects on one day (*"The lack of alternative tasks right now at the end of my PhD is killing me. Like there's just one task to be done and it's the big one and you just can't write anymore."*), others preferred a clear focus on specific projects. Additionally, actively scheduling breaks is crucial. Some PhD candidates manage to create their own routine, others reach out for support from, for example, their supervisors or an external counselor.

Additionally, candidates who feel comfortable ***setting boundaries and initiating discussions*** with their supervisory team often view healthy discussions and disagreements as beneficial for a successful PhD trajectory. One participant mentioned a story about a colleague, whom they considered to be good at setting boundaries that benefited finishing the PhD on time with the right support colleagues: *"They said: if you don't pay me then I'm not working, so they just handed it [the thesis] in* [...] *it was a bold move but it worked because* [...] *they handed it in on the last day of their contract and they went on holiday."*

Additionally, setting clear expectations about work norms and output early in the process was considered crucial. Participants explained that ***open conversations*** with supervisors about deadlines and realistic goals, as well as discussing these expectations with peers, were highly beneficial. However, not all supervisory relationships provide a safe environment for such interactions. Ultimately, the supervisor is in a more powerful position, and in some cases, changing the supervision team may be necessary to ensure a supportive relationship and a safe environment (*"There is very little room for the PhD student to go against that* [choice in a PhD chapter] *because, in the end, it's still the supervisor who makes the final decision."*)

Setting boundaries and initiating discussions can be even more challenging for international PhD candidates. Due to cultural differences and being unfamiliar with the Dutch system, it might be more difficult for them to recognize when they are treated unjustly, as they are not familiar with the norms yet. Therefore, it might take more time for them to take action or receive the support to manage difficulties.

Lastly, many candidates mentioned that ***maintaining an appropriate work-life balance*** is necessary to sustain motivation and productivity throughout their trajectory. Engaging in activities outside the PhD, such as social gatherings or hobbies, helped candidates build resilience and confidence when facing setbacks during their PhD by building a sense of identity outside their research (*"Making life outside of work interesting again really helped. And just putting more energy into different things, and also like trying to define your identity through different things than work, like, I'm not only a researcher."*).

Not all supervisors are aware how to foster proactivity and autonomy among their PhD candidates, nor was it always an option for PhD candidates due to for example health issues, power imbalances in the relationship with the supervisor or cultural differences in expectations of what level of proactivity and autonomy is expected.

Conclusion #4

Successfully finishing a PhD on time requires proactivity of the PhD candidate. Not all PhD candidates knew this was expected of them, and some had difficulties with the proactivity and autonomy that was expected of them.

Factor #5 A supportive environment

Within their working environment, many participants emphasized the ***exchange with other PhD candidates*** in- and outside the department in keeping them on track and motivated (*"having people to talk to about what I'm doing as well is quite an important motivator for me, both at the university and outside of it."*). Having social connections with colleagues include being able to celebrate success, share struggles and frustrations and realizing that others struggle as well (*"most important about going to the office is also the social aspects.* [...] *A community of people who are doing similar stuff. Who are in similar phases of their lives, who have similar issues and struggles."*). Moreover, social events such as going out for drinks or lunch, motivate candidates to come to the office on a daily basis and stay engaged with their work. The value of such social support became particularly clear during COVID, during which social interactions were limited. Many candidates realized that lacking support resulted in lost productivity and motivation (*"Informal contact and missing that, that was the most hit and go. Like you, I don't need a lab to do my work, but I do need the social connection with my colleagues in order to stay motivated and inspired to keep on working."*). Being motivated is something most participants considered crucial for timely completion.

Not just fellow PhD candidates were part of the supportive environment: receiving ***support from friends and family*** was another important source of support, which kept the candidates motivated. Many particularly mentioned their partner as an essential support figure who kept them going when facing personal and professional challenges during the trajectory (*"And my partner. I must admit, without my partner, I think I would have quit. So, a strong support system* [is important]*."*)

Physical illness and care responsibilities contributed to delays for some PhD candidates. For those taking sick leave, getting an extension covering the weeks or months that they were gone is not guaranteed. Multiple candidates reported only receiving part of their sick leave as an extension, leaving them behind on their project. In some cases, candidates were initially told that they would get an extension only to find that it was not granted, causing excessive stress and potentially further mental-health-related sick leave. Specifically, when facing a delay, some PhD candidates experienced a lack of support from the university or graduate school, such as being prohibited to further access university facilities necessary to complete the project.

When candidates need individualized support on how to manage their workload or handle persistent stress, many reach out for ***external or professional help***. External help was also

consulted when dealing with supervisory/research group issues (*"I did feel support from especially one of my daily supervisors and also the confidential counsellor. I thought she was really good. She listened well, she gave good advice."*). Participants mentioned that this help kept them on track for finishing the PhD instead of dropping out or taking (longer) sick leave. Many mentioned the urgency of receiving such help in case of significant (mental) health issues ("with the right medical supervision, both from the company doctor, both from the company doctor and also from [...] mental health professionals."). Some added that they would have liked to reach out to professional help earlier in their trajectory and highlighted that professional help should be more accessible for PhD candidates (*"I got professional help.* [...] *I think I started with that also too late. I think I would be happier if I did it already in my third or second year instead of in my last year."*). Particularly neurodivergent PhD candidates or PhD candidates struggling with mental health issues reported benefiting from professional help outside of the university context - having access to such resources was crucial for them (*"She referred me to an autism coach, so that's where I've gotten the majority of my support from."*).

The environment of the PhD candidate is important for a successful completion. Particularly seeking support when needed is crucial. Not all support is available within the university environment, especially not for PhD candidates with disabilities and/or PhD candidates who experienced illness during their PhD. This significantly impacts the progress of the PhD.

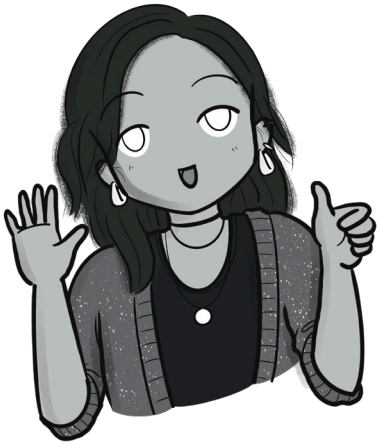
Conclusion #5

Factor #6 Tension between professional development and thesis completion

During a PhD trajectory, PhD candidates are developing into independent researchers and professionals. Besides the core research tasks that are directly tied to the completion of the PhD thesis, PhD candidates have other responsibilities and tasks tied to their employment and their professional development, such as following courses, obtaining teaching experience, joining staff meetings, being involved in extracurricular activities (e.g., PhD representation) and expanding their network. Some participants experienced difficulties in finding a good balance between focusing on research and their professional development, as they felt they were being assessed on the thesis while the other tasks felt as voluntary (*"Yeah like they literally said to me: you won't get to defend your PhD because of these tasks, drop them. At some point when I had too many, it was also the message of this doesn't make a difference in the end for you to graduate it makes a difference for you as a person or as an academic but not at a PhD so yeah so they were definitely not accounted for for my PhD, [I] could have done without it but I didn't want to."*)

Achieving a balance between professional development and completing the end product (i.e., the thesis) can be challenging and when the balance is lost, a delay can occur.

Conclusion #6



Conclusion

In this study, we identified six main factors that contribute to PhD delays and successful and timely completion of PhD trajectories:

1. One major factor is the **scope of the PhD project**. Many projects are not feasible within the standard duration of a PhD, due to unrealistic initial planning, time-consuming administrative processes and challenges in data collection. The lack of flexibility to adjust the research plan once a PhD has started exacerbates any delays. Supervisors and institutions often underestimate the time required for startup, ethical approvals, and final phase of thesis writing, leading to a structural misalignment of time expected versus time spent on the PhD thesis.

2. **Supervision quality** is another crucial factor. While some candidates receive strong and structured support, others experience limited guidance, delays in feedback or lack of engagement from supervisors. In cases of supervisory change, PhD candidates face additional setbacks. Transparent communication, timely feedback, and structured support are essential for PhD completion, yet they are not always guaranteed.

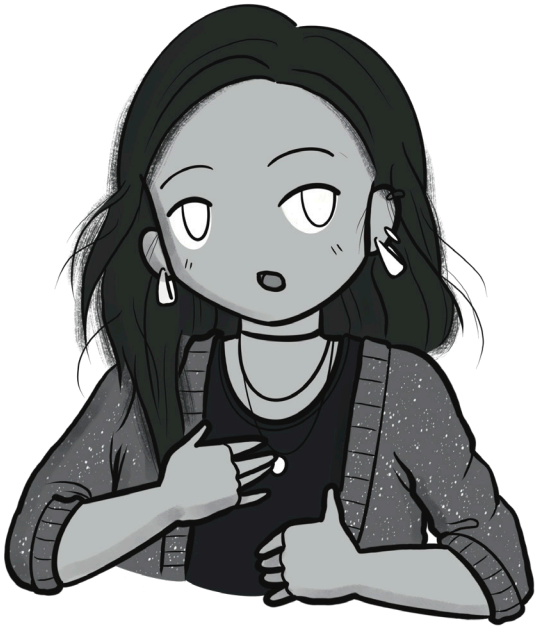
3. While formal regulations on what entails a PhD thesis exist, **departmental (informal) norms and supervisory expectations often add on more requirements**. This leads to ambiguity on when the PhD thesis is completed and hidden workload. Unclear and shifting expectations—particularly concerning the number of publications or additional research tasks—contribute to uncertainty and stress, which in turn can delay PhD completion.

4. Despite the above-mentioned structural challenges, **PhD candidates' proactivity and ability to take charge of their trajectory** can be a significant factor in timely completion. Those who set clear boundaries, establish work routines, and communicate openly with their supervisors often experience a greater sense of control. However, this expectation of autonomy is not always feasible, particularly not for candidates facing power imbalances, health issues, or cultural differences in supervisory expectations.

5. The **support environment** also plays a significant role. Access to peer support, professional coaching, and mental health resources can help PhD candidates remain motivated and able to navigate challenges. However, not all PhD candidates have equal access to such support—particularly those with disabilities, chronic illness, or personal care responsibilities. Institutional barriers, such as restrictive extension policies or limited access to university resources after contract expiration, further disadvantage those who experience delays due to personal circumstances.

6. Achieving a **balance between professional development and completing the end product** (i.e., the thesis) can be challenging and when the balance is lost, a delay can occur. Knowing that a PhD contract is temporary and other work has to be found after does mean that all PhD candidates need to focus on professional development alongside their PhD as well.

Discussion



This study highlights that PhD delays are rarely caused by a single factor, but rather by an interplay of many different factors. PhD candidates with severe delays often come across a multitude of factors as described above. Candidates who are able to finish on time often are able to make use of the support structures that are in place, and if they do encounter setbacks, can navigate these with the help of others and by staying motivated and proactive. In our study, we included the perspectives of many different PhD candidates and graduates, to represent the diversity of perspectives in PhD trajectories. Although not one PhD trajectory and candidate is the same, the factors that we describe portray the main challenges and success factors we identified in a PhD trajectory.

Although we expected that our results might differ from previous studies due to changes within academia, our findings are similar to the work of Van de Schoot et al. (2016), and a previous PNN survey in 2020.[10] Both studies highlight the importance of structured and good supervision, reasonable planning at the beginning of the PhD and providing structural support to PhD candidates. There was however one factor that stood out in our current study, which was not addressed in other works: having clear requirements on what a PhD thesis entails.[11] We note that the inability to set clear and feasible requirements at the beginning of the PhD project is a contributing factor to PhD delays: one simply cannot plan a project if the goals are unclear, or if the goal changes along the way. The alignment of expectations between the different parties involved in a PhD trajectory is often missing, e.g. the graduate school, supervisors, and additional stakeholders. It may not be realistic to prevent PhD delays fully, given how persistent the problem is - but it at least should not be the case that all the negative consequences are on the shoulders of the PhD candidate.

Delays in completing a PhD trajectory can have significant personal and professional consequences. PhD candidates who do not finish within their contract duration may face financial insecurity, as extensions are not always granted and depend on available funding, departmental culture, and supervisor support. Without an extension, many candidates must complete their thesis while working full-time, often in other jobs, which can lead to excessive workload and negatively impact their mental and physical health. Others rely on savings, partner support, or unemployment benefits, though working on a PhD while receiving benefits comes with strict regulations that add further stress.

For international candidates, delays can be even more challenging, as their residency status is often tied to their PhD contract. If they do not secure an extension or alternative employment, they may be forced to leave the country, making thesis completion even more difficult. Additionally, some candidates lose access to university facilities once their contracts expire, limiting their ability to finalize their research. These structural challenges highlight how PhD delays extend beyond academic concerns, affecting career prospects, well-being, and financial stability.

This research was conducted by PhD candidates, representatives of Promovendi Netwerk Nederland. Although we have critically reflected on our own biases throughout the research and reporting process, these reflections may have influenced the results in ways that should be considered. Moreover, this study only portrays one part of the picture: the PhD candidates' experiences. While analyzing the results, we observed signs of self-serving biases among PhD candidates. Delays were often attributed to external factors or others, whereas successful completion was largely seen as a personal achievement or attributed to individual characteristics. During a symposium in which we will discuss these findings, we will obtain the perspectives of other stakeholders in a panel discussion, of which we will later draw up a blog post on our website to share that perspective.

Recommendations

1. **PhD planning should include time to get started, and to write up the full thesis.**

Rather than anticipating to do four full years of research, PhD planning should allow at least half a year at the beginning to get started and half a year at the end to finalize the thesis. In the beginning, the time can be used to specify the research plan, get approval from an ethical review board, write up a data management plan, follow courses and so on. If more time is required, for example in the cases of medical ethical approvals that can take more than a year, this should be taken into account in the planning. The last half year is to be used not just to write up the thesis (introduction and discussion chapters and rewriting articles if necessary), but also to make sure all data is stored according to open science principles, results from the studies are communicated more broadly to the public and so on.

> Graduate schools should implement **structured onboarding programs** that help PhD candidates finalize their research plan, ethical approvals, and data management plan in the first six months.
>
> Supervisors and PhD candidates should be required to **submit a realistic project timeline** at the start, which accounts for necessary approvals and writing time. The training and supervision plan is in most cases required, yet accountability checks are often not in place for realistic planning.

2. **Make graduate schools and supervisors responsible for timely PhD completion as well, and hold them accountable.**

Right now, the responsibility of finishing the PhD thesis seems to lie with the PhD candidate. Graduate schools and supervisors need to foster PhD trajectories in which PhD completion is possible within four years, and need to step in along the way if the trajectory is not going as planned. If additional tasks have to be taken up by the PhD candidate, or personal circumstances arise along the way, extensions or adaptations of the project have to be arranged.

This also means that the PhD progress should be tracked carefully by graduate schools, and information about PhD completion rates should be made available. This way, we can learn from graduate schools where many PhD candidates finish their PhD on time.

> Universities should **publish completion rates** and allow comparisons between graduate schools, ensuring transparency on where PhD candidates are successfully completed within four years. This can foster best practices, and serve as an accountability check.
>
> Graduate schools should implement **mandatory annual progress evaluations** involving both the PhD candidate and the supervisory team, ensuring early interventions when projects derail.

> Clear **guidelines for workload distribution** should be developed, ensuring that PhD candidates are not overburdened with teaching or additional tasks that extend their trajectory without formal compensation or time extensions. If additional tasks are taken up or required, this should be discussed within the supervision team before increasing the workload.

3. Expectations of when the PhD thesis is completed should be discussed at the beginning, and have to be feasible.

For many PhD candidates, it is still unclear when their thesis can be considered completed, or expectations rise along the way, with supervisors requesting more chapters or studies. By stipulating what is expected of the thesis at the beginning, the goals of the project are clear and can be scheduled within the four years.

PhD regulations often do not include many requirements towards the PhD thesis. Rather, informal norms are set by supervisors or departments, which are often more ambitious than the formal rules. As PNN has advised before, PhD regulations need to include clear minimal requirements of what is expected from the PhD candidate, and any graduate school specific requirements should also be specified at the beginning.

Grant proposals are often overly full, as ambitious research proposals likely increase the opportunity of the grant being awarded. However, due to the high competition and lack of check of feasibility, many PhD projects are not feasible to begin with. They often require four full years of data collection, unlimited lab or field work, and often there is no money allocated to hire research assistants to help in large data collections. Grant providers must ensure that grant proposals include information on the feasibility, and reviewers must be asked to check for feasibility, especially of PhD projects.

> Graduate schools should require that every PhD project has a **written agreement** at the start that outlines the expected thesis structure (e.g., number of chapters, publication requirements, etc.).
>
> Supervisors should **align their expectations with formal PhD regulations** and ensure that these are documented and not informally increase over time.
>
> Funding agencies should introduce **a feasibility check in the grant review process**, ensuring that project goals can be realistically achieved within the contract duration. This should not be one of the grading criteria, but a prerequisite. Next to that, sufficient funding should be available for assistance, for example in case of large data collection.

4. PhD supervision quality is an issue of serious concern, and needs more attention.

Not all supervisors have the skills or know-how on how to foster autonomy among their PhD candidates, nor know how to guide PhD candidates towards successful completion. Moreover, we noticed many questionable research practices in supervision. PhD supervision needs to be taken seriously: PhD supervision teams need to include experienced supervisors, but also involved supervisors who have the time to guide their PhD.

> Universities should require **mandatory supervision training** for all new PhD supervisors, focusing on fostering autonomy, research integrity, and supporting mental well-being.
>
> PhD candidates should have access to **an independent contact point** (e.g., an ombudsman, graduate school advisor, PhD mentor) where they can raise concerns about supervision quality without fear of consequences.
>
> Graduate schools should **implement a formal supervision evaluation system**, where PhD candidates provide feedback on their supervision experience, and supervisors with consistently poor evaluations must undertake additional training.

We do want to note that in many cases, some of these checks and balances are officially already in place, but are not followed up by individual supervisors or graduate schools. These checks and balances should not be a paper reality, but lived practices that lead to cultural change in finishing the PhD.

References

1 Rathenau Instituut. 2025. „Van promovendus tot promotie." *https://www.rathenau.nl/nl/wetenschap-cijfers/wetenschappers/van-promovendus-tot-promotie*.

2 Promovendi Netwerk Nederland. n.d. „Mijn contract loopt af, maar mijn proefschrift is nog niet klaar." Accessed February 21, 2025. *http://hetpnn.nl/en/kennisbank/mijn-contract-loopt-af-maar-mijn-proefschrift-is-nog-niet-klaar/*.

3 Boomsma, Christien. 2024. „Vijf jaar werk en vier jaar tijd: Zo wil de betafaculteit haar promotiecultuur aanpakken." *Ukrant*, April 16, 2024. *https://ukrant.nl/magazine/vijf-jaar-werk-en-vier-jaar-tijd-zo-wil-de-betafaculteit-haarpromotiecultuur-aanpakken/*.

4 Van Loosbroek, Sebastiaan. 2024. „Buiten- en beurspromovendi moeten betalen." *Mare Online*, April 11, 2024. *https://www.mareonline.nl/nieuws/buiten-en-beurspromovendi-moeten-betalen/*.

5 Koppen, J. K., and T. T. D. Peetsma. 1993. „Het beïnvloeden van de voortgang van AIO/OIO onderzoek." *Tijdschrift voor Hoger Onderwijs* 11 (2). *https://tvho.archief.openjournals.nl/pdf/TvHO%201993%2011%2002%2004%20Koppen.pdf*.

6 de Goede, M. E. E., R. Belder, and J. de Jonge. 2013. *Academische carrières en loopbaanbeleid/Academic careers in the Netherlands*. Den Haag: Rathenau Instituut. *https://www.rathenau.nl/sites/default/files/Feiten_en_Cijfers_Academische_Carrieres_2013.pdf*.

7 Berger, J., and J. de Jonge. 2005. *Rendement verkend. Succes- en faalfactoren van promotietrajecten aan Nederlandse universiteiten*. Zoetermeer: EIM Onderzoek voor Bedrijf & Beleid.

8 Van de Schoot, Rens, Mara A. Yerkes, Jolien M. Mouw, and Hans Sonneveld. 2013. „What Took Them So Long? Explaining PhD Delays among Doctoral Candidates." *PLOS ONE* 8 (7): e68839. *https://doi.org/10.1371/journal.pone.0068839*

9 Rathenau Instituut. 2024. „Nederlandse promovendi naar type promovendus naar universiteit." *https://www.rathenau.nl/nl/wetenschap-cijfers/output/promoties-en-studenten-hoger-onderwijs/nederlandse-promovendi-naar-type*.

10 Promovendi Netwerk Nederland. (2020). *PNN PhD Survey*. *PNN-PhD-Survey-report-Wellbeing-1.pdf*

11 Promovendi Netwerk Nederland. 2023. *PhD Regulations in the Netherlands*. *https://hetpnn.nl/wp-content/uploads/2023/03/PhD-regulations-in-the-Netherlands.pdf*.

Appendix

Appendix I Focus group discussion guide

Introduction:

- Who are we (PNN)? – national advocacy group for PhD candidates; try to shape policy for PhDs, identify issues and try to facilitate change
- What is the purpose/goal of this meeting? One issue we identified is the duration of a PhD trajectory (often longer than contracted 4 years), several factors may play a role, so we want to find out what impacts the PhD trajectory, and also what helps with a successful trajectory
- Short disclaimer how this group was composed / some conversation rules? – please respect each other's experiences, we want to hear the positive and the negative, PhD trajectories can be very diverse; also what is said in this room stays in this room.
- Inform about audio recording of the meeting → we record and transcribe (+ anonymize as far as possible)
- What will we do with the obtained information?
- Short summary of what was discussed after for approval
- transcription/analysis & report writing (with summary and anonymized quotes) → opportunity to provide feedback

Short introduction round (all the participants) & opening questions:

- Name & institution
- Field & research topic?
- Something fun, short and informal – 'The last place you've been on vacation to?' / or the next place you plan to go to

Another round:

- Why did you choose to be here?

Question Prompts for Discussion:

What are the core parts of your day to day PhD (work) life?
What does your day look like as a PhD?
What takes up most of your time?

What is your goal in your PhD?
When do you consider a PhD trajectory a success?
What would you like to learn/achieve during your PhD?

When do you know you reached your goal?
How do you know you are done with your PhD?
How do you know a thesis is completed?

– Discuss supervision team composition —

What do your supervisors think constitutes a completed PhD?
What do your supervisors think constitutes a successful PhD?
What do you think your supervisors require from you before you can submit your thesis?
What does your graduate school require from you before you can submit your thesis?

What are the problems/ delays you encountered?
Which parts took longer than expected?
Which parts of the PhD do/did you have most trouble with?
What specific factors of xyz had an impact on your PhD trajectory?

What or who enables you to successfully work on your PhD / helps you to „finish line“?
What are things that give you energy / keep you motivated during your PhD?
What tasks/activities in your PhD do you value the most?
Which tasks/activities in your PhD are valued by your peers and supervisors?

Possible follow up prompts

- Within your department / research group: how does your experience compare to other PhD trajectories?
- What are your tasks this week?
- What do you consider research related tasks?

Appendix II Sample to population comparison[1]

1. PhD type[2]

	Sample	Population
Employed PhD candidates	76%	59%
Scholarship PhD candidates	20%	11%
Externally funded PhD candidates	4%	12%
Self-funded PhD candidates	0	15%

2. Gender[3]

	Sample	Population
Male	30%	54%
Female	70%	46%

3. Field of study[4]

	Sample	Population
Agricultural sciences	13%	8%
Natural sciences	13%	28%
Economics	4%	6%
Law	2%	5%
Social and behavioural sciences	35%	13%
Language and culture	4%	5%
Technical sciences	22%	35%
Health sciences	6%	Unknown

1 rounded to full percentages

2 Compared to data as available by Rathenau, which does not include the PhD candidates at umcs. Rathenau Instituut. 2024. „Nederlandse promovendi naar type promovendus naar universiteit." *https://www.rathenau.nl/nl/wetenschap-cijfers/output/promoties-en-studenten-hoger-onderwijs/nederlandse-promovendi-naar-type.*

3 Compared to data as available by Rathenau, which does not include the PhD candidates at umcs.Rathenau Instituut. 2025. „Van promovendus tot promotie." *https://www.rathenau.nl/nl/wetenschap-cijfers/wetenschappers/van-promovendus-tot-promotie.* Gender is reported in binary categories (male/female), meaning that PhD candidates who do not identify within this binary framework are not represented in the national data right now.

4 Compared to data as available by Rathenau, which does not include the PhD candidates at umcs. Rathenau Instituut. 2025. „Van promovendus tot promotie." *https://www.rathenau.nl/nl/wetenschap-cijfers/wetenschappers/van-promovendus-tot-promotie.*