The PhD Coach Kit: A coaching tool for PhD students

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About the authors

Luisa Solms is currently finalising her PhD thesis at the Department of Work and Organizational Psychology at the University of Amsterdam. Well-being and personal development of PhD students are central themes in her research. The questions Luisa examines in her research concern the factors that determine PhD students' well-being, the resources that help PhD students to navigate their PhD and effective interventions that can promote PhD students' well-being. Next to conducting research, Luisa is passionate about its application in practice. Together with her sister, she co-created the podcast PhD Unplugged to offer accessible and easy-to-use support to PhD students. In PhD Unplugged, PhD students share their experience 'unplugged' and reflect on common challenges together with a professional coach. By translating her research into creative outputs, Luisa makes her work more meaningful and joyful.

Dr. Lara Solms is a postdoctoral researcher at the Department of Work and Organizational Psychology at the University of Amsterdam. In her PhD project, Lara focused on the effectiveness of coaching for medical professionals and the psychological mechanisms that underlie positive coaching outcomes. This research sought to inform healthcare professionals (and others) about the benefits that coaching can have for their personal and professional development. Lara's current research focuses on understanding the coaching process (how does coaching work?) and boundary conditions (when and for whom does it work?) of effective coaching. Lara is also actively involved in valorisation activities and has co-founded the podcast PhD Unplugged to help promote PhD student well-being.

Abstract

Pursuing a PhD can be highly stressful for PhD students. With challenges such as publication pressures, struggles to maintain a healthy work-life balance, and insufficient support, PhD students' well-being and mental health are at risk. To address well-being in academia, particularly for PhD students, individual-level interventions such as coaching, stress management, and peer support may have promise. However, access to these resources remains limited in academia. In response, we developed the PhD Coach Kit, a self-coaching tool designed to provide accessible, on-demand support for PhD students. Featuring reflection cards that cover 10 key topics, this tool encourages self-reflection and solution-focused thinking to help PhD students navigate the diverse challenges encountered throughout their PhD journey.

Keywords: PhD student well-being, academia, mental health, coaching, reflection, personal development

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PhD student well-being at stake

Many PhD students struggle with stress and mental health problems at some point during their PhD (Levecque et al., 2017). Reportedly, anxiety, depression and suicidality are high among PhD students and can't be explained by pre-existing mental health problems (Berry et al., 2021). It seems that the PhD trajectory, with all that it comes with (e.g., extraordinary demands and insufficient resources), is a significant source of stress for PhD students. Research has produced a long list of factors contributing to PhD students' poor well-being (Mackie & Bates, 2019; Schmidt & Hansson, 2018). For instance, publication pressures and struggles to combine work and private life are key risk factors for PhD students' well-being (Solms et al., 2024b). Additionally, many PhD students feel insecure about their future due to temporary employment and the scarcity of academic job opportunities (Levecque et al., 2017). This insecurity is not only a source of stress but may also intensify the pressures of research and teaching in order to be competitive after completing the PhD. Finally, due to its focus on excellence, academia may attract and reward PhD students who set themselves to very high standards which may undermine the development of relevant personal resources, such as self-compassion (Moate et al., 2019; Solms et al., 2024a).

Poor well-being of PhD students is an issue of great concern as it hurts PhD students and their prospective careers but also the universities they work for. For instance, PhD students who struggle to obtain a healthy work-life balance report higher sickness absenteeism (Solms et al., 2024b), indicating that stressors may negatively influence PhD students' health status. If PhD students fall sick during their PhD or drop out of the PhD altogether, universities may be faced with reduced teaching and research staff, further increasing existent work pressure for those remaining.

Provision of support for PhD students: The case for coaching

To guide universities in supporting their PhD students, calls have been made to develop tailored, evidence-informed interventions for PhD students (Martínez-García et al., 2024; Kismihók et al., 2021). While few such interventions exist (Solms et al., 2024a; Marais et al., 2018), universities may also struggle to implement these in practice. One intervention that has been applied to various work contexts but is less prevalent in higher education is coaching. Coaching is a typically one-on-one, solution-focused, and goaloriented intervention to help clients set and attain personally meaningful goals (Grant, 2003) and is frequently used in organisational contexts to promote learning and personal development. While coaching is traditionally conducted by an independent coach, modern workplaces have blurred the lines around who can or should be coaching. Managers and team leaders are increasingly encouraged to develop coaching skills and coach their direct reports and teams—a coaching format commonly known as managerial coaching or 'the manager as coach' (Nyfoudi et al., 2023). Numerous studies have shown that coaching is beneficial for well-being and workplace functioning: it reduces stress and burnout symptoms, promotes the development of personal resources and is linked to improved performance (e.g., Solms et al., 2021; Theeboom et al., 2014). Managerial coaching has been linked to job engagement and team performance (Carrell et al., 2022; Nyfoudi et al., 2023). Despite its potential benefits, coaching interventions performed by independent coaches or managers in higher education remain scarce, particularly for early-career academics. One possible reason for the limited use of externally hired coaches is the relatively high cost associated with personalised coaching, ranging typically from €90 to €120 per session. Although one-on-one coaching is highly desirable for earlycareer academics, it isn't always feasible. More cost-efficient alternatives have recently emerged, driven by technological advancements post-pandemic and the rise of artificial intelligence. These include digital, hybrid, and AI-supported coaching formats, such as chatbot coaching, which may assist clients with goal-tracking and may facilitate accountability (Terblanche et al., 2024). Another practical, low-cost option is selfcoaching, where no professional coach is involved; instead, clients 'coach themselves' using prompts like coaching questions and guided instructions. Based on prior research into the effectiveness of coaching questions and self-coaching (Grant & O'Connor, 2010; Solms et al., 2022; Theeboom et al., 2016), self-coaching tools may effectively stimulate self-reflection, boost self-efficacy, encourage action planning, and ultimately support coachees in navigating their careers and well-being in meaningful ways. Such

nontraditional formats, including AI-supported and self-coaching options, may offer valuable opportunities not only for clients—such as PhD students and early-career professionals—who might otherwise lack access to one-on-one coaching but also for professional coaches who can use these tools to complement their own practice.

The PhD Coach Kit: A coaching tool for PhD students

Based on the idea that PhD students may benefit from coaching to help reflect on challenges during their PhD and find ways to address them, we have developed the PhD Coach Kit, a pocket guide for PhD students. The PhD Coach Kit is a coaching tool consisting of 80 reflective questions targeting 10 different topics (i.e., eight questions per topic). As can be seen in Figure 1, the topics are diverse, ranging from how to promote <code>work-life balance</code> to combatting <code>perfectionism</code> and, as such, cover various issues PhD students frequently encounter during their PhD. While at the beginning of the PhD, PhD students may have insecurities about how to <code>navigate academia</code> and about what is expected of them, in later stages of the PhD, they may have questions such as how to deal with problems with <code>supervison</code> or how to <code>plan a career</code> in or outside academia. By covering topics relevant to PhD students across the 'PhD lifespan', we aim to offer support for PhD students regardless of the stage they are in.

Figure 1
Overview of topics



By helping PhD students reflect on their PhD journey through thoughtful questioning, the PhD Coach Kit helps PhD students proactively manage their PhD, well-being, and their careers. Our goal is to trigger reflection but also help PhD students get into action. To illustrate, PhD students facing challenges with work-life balance might be asked, 'What small changes could you make to detach more easily from work?'. Through open, solution-oriented questions, the PhD Coach Kit helps PhD students take meaningful action in specific areas of their lives.

Figure 2

Question card 'work-life balance'



The development process

The PhD Coach Kit was developed in three iterative stages: 1) exploring PhD students' experiences and support needs, 2) developing a prototype addressing those needs, and 3) testing and finalising the prototype, resulting in the current tool kit. In all phases, relevant stakeholders (i.e., PhD students, professional coaches, PhD mentors) were engaged in the development process. Below, we briefly describe the development process.

Our starting point was discussions with PhD students to better understand common issues they encounter during their PhDs. Based on PhD students' input and a literature

search, we selected eight topics relevant to PhD students' experiences, such as work-life balance, supervision, and career planning.

Based on the initial topic list, and guided by the GROW model—a popular model frequently used in coaching practice to structure sessions (Grant, 2011)—we created a preliminary set of coaching questions. The GROW model divides a coaching session into four stages: Goals, Reality, Options, and Wrap-up (sometimes referred to as Will or Way Forward). This model is particularly useful for guiding novice coaches in structuring their coaching sessions. For our purpose, it provided a framework for developing reflective questions that addressed all four components, focusing on goals and aspirations, potential obstacles, resource activation and solution-oriented thinking, and, finally, action planning. Together with a professional coach, we revisited our original topics (e.g., replacing the topic 'values' with 'strengths' to emphasise tangible skills and qualities over abstract concepts), resulting in a total of 10 topics. Based on expert advice and in order to help PhD students understand each topic, we developed a topic card (see Figure 3 below) for each topic area that answered three questions: (1) 'What it is', (2) 'How it affects us', and (3) 'What we can do'.

Figure 3
Topic card 'stress'

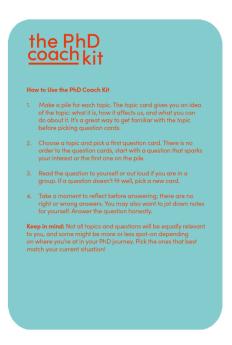


Finally, together with a PhD mentor and PhD students from a large university in the Netherlands, we took our prototype for a test run. In small groups, each focusing on a specific set of topics, PhD students evaluated the questions based on two criteria: (1) understandability, whether the questions were clear, and (2) relevance, whether they addressed important issues for PhD students. Based on their feedback, we made minor revisions and finalised the tool kit.

The PhD Coach Kit in practice: How to use it

The PhD Coach Kit is a card game designed for both individual reflection and dyadic or group reflections and discussions. While some coaching questions may invite deeper personal reflection and be better suited for individual use, others may be particularly well–suited for use in dyads (e.g., during peer coaching or with a mentor or coach) or groups. The kit was created with flexibility in mind, allowing it to be used by PhD students as well as their academic mentors, coaches, and supervisors. The instruction card of the Coach Kit (see Figure 4) outlines how to use the cards effectively. Below, we explain how the PhD Coach Kit can be applied across different target groups.

Figure 4
Instruction card



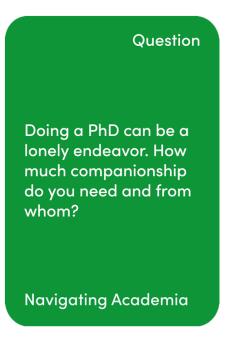
How PhD students can use the toolkit

Individual use

In traditional coaching, clients often come with a specific question or problem they wish to address—such as improving work-life balance or developing leadership skills. However, a clearly defined question is not necessary when using the PhD Coach Kit. Instead, PhD students can browse various topics and questions, selecting those most relevant to their current situation. With 10 topics spanning the entire 'PhD lifespan,' some will naturally resonate more at certain stages than others. For example, *navigating academia* may be a valuable topic for starting PhD students. With questions focused on (unspoken) expectations, requirements, and everyday experiences, this topic can help prepare PhD students for the realities of their PhD journey and how to navigate those effectively. For instance, by asking PhD students, 'How much companionship do you need and from whom?' the kit helps to address the often–experienced reality of feeling lonely during the PhD (see Figure 5).

Figure 5

Question card 'navigating academia'



On the contrary, *career planning* may become particularly relevant to PhD students in later stages of their PhD as they begin to think about the next steps after completing their PhD. For instance, to prepare for a future job, PhD students are asked to identify skills they would like to develop or people who could assist in finding suitable career options (see Figure 6).

Figure 6

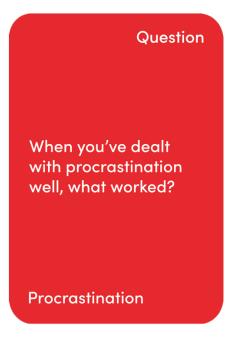
Question card 'career planning'



At the same time, PhD students with a particular question in mind can use the kit to focus their self-reflection on that specific area. For example, a PhD student struggling with procrastination might want to go directly to the section addressing that topic. One of the cards prompts PhD students to think about 'the costs of starting a task (too) late', and as such encourages to reflect on the consequences of their procrastination. Additionally, through questions such as 'When you've dealt with procrastination well, what worked?', PhD students are reminded of potential strategies for combating procrastination (see Figure 7).

Figure 7

Question card 'procrastination'



Whether PhD students have a specific question in mind or simply want to browse the topics for inspiration and guidance, the PhD Coach Kit can serve as a valuable tool for guiding self-reflection and encouraging PhD students to take meaningful follow-up actions to shape their PhD journeys in a way that is in line with their values, needs, and wishes. During a recent workshop with the PhD Coach Kit, PhD students indicated that it allowed them to 'share experiences and strategies', 'addressed spot-on questions', and helped 'to start a conversation about difficult topics.' At the same time, we encourage PhD students to seek professional support when needed. It's important to note that the PhD Coach Kit is not a substitute for real-life assistance from a mental health specialist or professional coach. Rather, it is a general tool designed to help PhD students navigate their studies and support their self-reflection, but it should never replace professional support when required.

Use in groups

PhD students can greatly benefit from informal exchanges during peer group discussions. Bringing PhD students together to share their experiences and insights can foster a sense of community and shared identity, which will benefit their well-being on its own

(Jackman et al., 2022; Hazell et al., 2020). Additionally, group reflections allow PhD students to explore new pathways for achieving their goals or overcoming challengespathways they might not have considered but are inspired by through the ideas and reflections of their peers. However, as with any group setting, comfort levels can vary, especially when potentially sensitive topics are discussed. Some participants may feel more open to sharing their experiences and being vulnerable, while others may prefer to listen and reflect privately. Some may benefit most from sharing their own challenges and receiving direct advice, while others may gain insight from hearing about their peers' experiences and applying those lessons to their own situation. There is no right or wrong way to use the PhD Coach Kit in such a setting. However, it is crucial that when used in groups, these spaces are psychologically safe. Confidentiality should be respected, and every PhD student's contribution should be encouraged, valued, and appreciated. Especially when PhD students from different disciplines, backgrounds, and teams come together, their experiences and perspectives may differ—along with their definitions of what constitutes a successful or meaningful career and life. We encourage respectful engagement with one another's experiences to foster shared learning and mutual growth. To that end, PhD students using the Coach Kit in groups may emphasise the importance of confidentiality before each session. They should also consider finding a quiet space where they won't be overheard or interrupted. Finally, we suggest keeping group sizes small to ensure that all group members have ample opportunity to engage in the discussion. While there is no fixed rule on how big or small groups should be, we suggest keeping groups to five people to maintain a clear and focused discussion and avoid group members engaging in overlapping and off-topic conversations. In larger groups, people may also struggle to find the right moment to speak or feel intimidated by those who lead the conversation. Therefore, to manage these risks and increase the likelihood that all group members feel comfortable contributing to the discussion, we recommend keeping the group size small. If larger groups cannot be avoided, we suggest appointing a group facilitator who can guide the conversation and ensure that all participants can participate in the discussion if they want to.

How mentors and coaches can use the toolkit

At academic institutions, coaches and mentors can play a crucial role in supporting academic staff and PhD students. This support may be offered through various avenues, including career and learning centres or human resources programs. Graduate schools may collaborate with coaches and mentors to provide tailored assistance specifically for

PhD students. Additionally, professional coaches may work with PhD students as their private clients. In all these contexts, the PhD Coach Kit can serve as a valuable addition to the toolbox of these professionals. Mentors and coaches can use the kit to *focus on specific topics*—such as the topic the PhD student seeks support for—or browse through the various topic cards together with the PhD student. Especially when PhD students approach coaches and mentors with broad or ambiguous questions, such as 'I'm not sure if a PhD is right for me', the Coach Kit can provide mentors and coaches with a curated selection of topics and questions that may help to *narrow down the focus during a first session*, and, as such, may help to clarify what topics to further work on in the future. Having the cards on the table can help *spark conversation*, especially with PhD students who may find it difficult to open up. The illustrations on the Coach Kit can assist coaches and mentors in initiating discussions (e.g., 'Do you ever feel like that? That you are doing something completely irrelevant while really you should be working?' pointing towards the *procrastination* topic card (see Figure 8).

Figure 8
Front of topic and question cards 'procrastination'



Mentors and coaches may also use the cards to *facilitate 'homework' exercises*. In coaching, it is common for coachees to remain active also in between coaching sessions, sometimes engaging in activities such as journaling or behavioural experimentation. For instance, a coachee seeking to become more assertive might be encouraged by their coach to

voice their opinion during the next team meeting. As a homework exercise, coaches and mentors can provide PhD students with a selected question card to reflect on until their next session. For example, PhD students nearing the job market may be asked to write down ideas for what a potential Plan B for their career could look like (see Figure 9).

Figure 9

Question card 'career planning'



In addition to coaching PhD students, the Coach Kit may be used for *coach training*. Based on the popular GROW model, the PhD Coach Kit offers a practical tool for novice coaches to learn and apply the GROW model. For example, at KU Leuven, the Coach Kit was recently used to train postdoctoral researchers in coaching skills.

How PhD supervisors can use the toolkit

PhD students' supervisors can also benefit from using the PhD Coach Kit. When time is limited, it's easy to focus solely on research questions, methods, and papers while neglecting 'softer' topics like well-being. Since many PhD students may hesitate to bring up topics like their well-being, mental health, or insecurities without being prompted, we encourage supervisors to integrate these topics into their supervisory meetings. While some supervisors may naturally check in on their PhD students' self-care, stress levels, and work-life balance—potentially sharing personal anecdotes from their own

PhD experiences—others may keep conversations 'strictly professional', avoiding such topics altogether. Given the importance of addressing challenges early on, both for PhD students and their supervisory teams, we encourage supervisors to make mental health and well-being a regular part of their meeting agenda. For example, supervisors could dedicate the first 10 minutes of a meeting to discussing a topic from the PhD Coach Kit. While such conversations may feel artificial at first, especially without an immediate reason, regularly discussing mental health and well-being can make it easier for PhD students to bring up concerns when needed. By providing the occasion and legitimising the topic, supervisors create the boundary conditions to do so.

PhD supervisors can ask their students to choose a topic they would like to discuss or can also start the conversation by introducing a topic *they* struggle with. For instance, broader topics, such as *self-care* or *strengths* contain various questions that are not only relevant to PhD students but also to (more) senior academics. Supervisors can pick questions, such as 'What does good self-care look like for you?' or 'On a scale from 1 to 10, how compassionate are you toward yourself?' to prompt a conversation about self-care in academia (see Figure 10). Accordingly, a supervisor may tell their student about a difficult time in their career (e.g., being rejected from a job) and how they managed to become more self-compassionate.

Figure 10 Question card 'self-care'

Question

When going through a tough time, we can be hard on ourselves. On a scale from 1 to 10, how compassionate are you toward yourself? What could you do to increase it by one point?

Self-Care

After hearing about their supervisors' struggles and learning experiences, PhD students may open up about their own struggles, such as being self-critical when faced with problems (e.g., being rejected from a conference). Similarly, PhD supervisors may give insight into their own strengths and weaknesses by discussing questions, such as 'How could you make (better) use of your strengths at work?' or 'What quality or skill could help you manage a challenge you are currently facing?' (see Figure 11). Hearing about supervisors' challenges can help PhD students view their supervisors as 'normal people' to whom they can relate and entrust themselves. At the same time, hearing about their supervisors' strengths and approaches to solving problems can be inspiring, helping PhD students to brainstorm solutions to their own challenges.

Figure 11

Question card 'strengths'



After sharing their experience, supervisors can ask their students if these topics/ questions are also relevant to them to prompt a conversation about the student's experience. If the topic or question does not resonate with the student, the supervisor can ask the student to choose a different topic or question that speaks to them more. As illustrated, addressing well-being-related topics needs time, preparation, and experimentation. It is essential that supervisors provide a setting in which PhD students feel comfortable to share their experiences. One way to achieve this is by sharing one's

own experiences. While the PhD Coach Kit can serve as a conversation starter between PhD students and their supervisors, we recognise that not all PhD student-supervisor relationships may feel safe enough to broach such topics. In these cases, PhD students may prefer to discuss these issues—including supervision itself, which is covered as a separate topic in the kit—with individuals outside their supervisory team, such as a PhD mentor, counsellor, or confidential advisor.

From research into practice: Considerations and personal reflections

As scientists, our primary focus is on conducting research within our respective fields, such as employee well-being and coaching, and advancing these areas through meaningful and novel studies. On most days, this involves brainstorming ideas, designing studies, recruiting participants, analysing data, and writing. For us—and many of our colleagues in work and organisational psychology—research is highly connected to real-world contexts like workplaces. As such, translating research into practice is highly desirable, as it allows us to see our ideas take shape and, hopefully, make a meaningful difference.

While our profession recognises the value and potential of applied research, it's not always the first thing on our minds. Often, it's something pursued 'on the side,' perhaps as a hobby project. Here in the Netherlands, however, there has been growing emphasis—partly driven by the recognition and rewards movement—on researchers' contributions to impact—making and valorisation. This shift is helping to elevate such efforts from optional extras to a more integral and valued part of a researcher's role.

Even with this positive change, developing a toolkit for practice wasn't initially high on our list. After all, finishing a PhD was the priority. Yet, somewhat unexpectedly, as we reflect on the year coming to a close, this project stands out as one of the most rewarding and valuable learning experiences. It brought us into contact with various stakeholders in PhD education, including coaches, mentors, PhD students, and professionals we don't typically work with, like designers, illustrators, and a publishing house.

Developing the PhD Coach Kit allowed us to bring together our research interests and find a way to make it valuable for our community of early-career academics and educators. It hasn't always been easy; our initial set of questions required significant revision, we

faced funding challenges, and we weren't sure how to ensure PhD students could find the kit. In situations like these, it's important to stay focused on the goal, push through, and not get discouraged. Now that the PhD Coach Kit is 'on the market,' we are regularly approached by graduate schools interested in workshops on academic well-being and the kit itself. One of our main goals in developing the kit was to help break the silence surrounding mental health and well-being in academia, and we're starting to see that, slowly but surely, this is happening.

We recognise that for many (scientist-)practitioners, developing a tool like this might initially seem unfeasible—just as it did for us. Yet, we want to encourage you to consider doing it anyway. If you have an idea, talk it over with a colleague, neighbour, intervision group, or supervisor. Try to envision the product you want to create, who it will benefit, and how. It might also help to find a partner in crime or collaborator—someone with whom you can bounce ideas, receive feedback, and who will help you push through any setbacks. Once you have decided to pursue your idea, it can help you to take the following steps: 1) Get a good overview of what is out there already. Are there any similar ideas? How is your idea different from or better than others? Whose needs do you address and how? 2) Get a realistic view of the timeline. While an idea can be developed easily, putting it into practice can take months or even years. Try to work out all the development steps you need to take. Also, think about where and when to involve your key stakeholders. 3) Get help on board. Whether or not you are pursuing your idea alone or as a team, there might be times when you get stuck. Don't shy away to ask others for help. You might want to hire a professional for expert advice or ask a colleague to think along. Talking to 'outsiders' will give you a fresh perspective and help you move forward.

Outlook: What's next?

The PhD Coach Kit currently covers 10 key topics that are essential for PhD students' well-being, and personal and professional development. Naturally, there are many more topics that could be valuable to include, such as parenting, intercultural competencies, challenges of pursuing a PhD abroad, or academic writing. We are dreaming big and hope to expand the kit to address these areas in the future. Additionally, the effectiveness of the PhD Coach Kit and the optimal ways to use it (e.g., individually or in groups) has yet to be empirically evaluated—something we aim to explore in the future.

Conclusion

The PhD Coach Kit aims to offer PhD students, along with their mentors, coaches, and supervisors, concrete, practical, and easy-to-use guidance for successfully navigating the PhD journey. By systematically addressing common challenges through thoughtful, solution-focused questions, the kit encourages reflection and prompts concrete action. Ultimately, we hope it serves as a conversation starter, helping to normalise discussions about mental health and well-being among PhD students, early career researchers, and everyone involved in PhD education.

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