

Becoming a professional supervisor: Doctoral supervisors' development in a mandatory, large-scale development programme

Trine Fossland

Abstract

High-quality supervision is crucial for doctoral researchers' progression, attrition rates, well-being, and experience of their doctoral journeys. New requirements in higher education have actualised the professional development of doctoral supervisors' praxis, both as an institutional responsibility and academic field. However, there is a lack of literature exploring doctoral supervisors' perspectives on professional development. This paper explores what doctoral supervisors find essential for their professional development when attending a mandatory programme for doctoral supervisors. Drawing on a longitudinal case study on the professional development of supervisors, five core aspects essential for the professional development of doctoral supervisors' praxis are identified: institutional responsibility and support; transformational learning; building a broader repertoire of approaches to supervision; learning to balance complexity, and interaction and identity formation within supervisors' communities. Based on these findings, a set of institutional recommendations for the professional development of doctoral is suggested.

Keywords: doctoral education; professional development; supervision

Received 22 October 2022; revised version received 17 April 2023; accepted 30 May 2023. Corresponding author: Trine Fossland, the Arctic University of Norway, Norway (trine.fossland@uit.no).

Introduction

Becoming a doctoral supervisor has changed significantly in the last 30 years and has led to the expansion of the relatively new field of professional development of supervisors (Bitzer et al., 2013; Halse, 2011; Hammond et al., 2010; Huet & Casanova, 2022; Lee & Boud, 2009). The professional development of supervisors' praxis¹ means to develop skills, knowledge, and general competencies essential for

¹ See the editorial, JPHE, Volume 1 (2019) p. 4 for more details on the concept of *praxis*.

supervisors, and ‘the process whereby their professionalism may be enhanced’ (Evans, 2019, p. 7). To perform their jobs well and to advance their praxis, supervisors need to develop and build on thoughtful, informed actions, reflexivity, and attention to the moral-social-political aspects of doctoral supervision. The ambition to develop doctoral supervisors’ praxis might also be seen through a notion of the public good within higher education (Marginson, 2007).

In many institutions internationally, an emerging requirement for the appropriate professional development of doctoral supervisors is related to the significant personal, institutional, and societal costs when doctoral researchers do not complete their studies (Halse & Malfroy, 2010). The quality of doctoral supervision affects doctoral researchers’ progression, attrition rates, well-being, and the quality of their projects and overall experience (Ives & Rowley, 2005; Taylor, 2018). Halse (2011), points to the striking silence regarding research on doctoral supervision practices which problematises doctoral supervisors’ learning and development. Hammond et al. (2010) found three specific routes for how supervisors ‘learned’ to become supervisors: how they have been supervised themselves (often a long time ago), constructive co-supervisory relationships, and reflections on practice within workshops or development programmes. This case study explores what doctoral supervisors find important for the professional development of their supervisory praxis in a mandatory large-scale professional development programme focused on doctoral supervision. First, this paper maps out approaches to professional development for doctoral supervisors and discusses the concept of *transformative learning* to recognise possible shifts in the supervisors’ praxis. Second, a brief introduction to the programme on which this case study is built is presented. Third, the methodology section follows. Fourth, the results are presented, followed by a concluding section which includes a discussion of the implications of the results and institutional recommendations concerning developing doctoral supervisors’ praxis.

Professional development of doctoral supervisors

Development programmes for doctoral supervisors primarily existed in Australia from the 1980s, with a succeeding international outreach to New Zealand, the UK, and other European contexts (Buirski, 2022; Hammond et al., 2010; Kandlbinder & Peseta, 2009; Manathunga et al., 2010; McCormack, 2009; McCormack & Pamphilon, 2004; Pearson & Brew, 2002). Professional development of supervisors occurs in different shapes and forms, with various lengths, content, and coursework (Lee, 2018; McCulloch & Loeser, 2016). According to Kiley (2011), development programmes at leading Australian universities often include a focus on supervisor

and student relationships; clarification of different expectations and milestones; and how to monitor progress, policies, and the roles and responsibilities of supervisors, candidates, institutions, and so forth. Formal models of supervisory development vary within national contexts, from half-day workshops with training and instruction to extensive long-term programmes with various online elements (Kiley, 2011; Lee, 2018; Manathunga et al., 2010; Wisker & Robinson, 2013). Kobayashi et al. (2017) refer, for instance, to New Zealand, where only a few universities offer formal programmes, in contrast to Denmark, where almost all universities regularly conduct formal programmes.

Supervision as professional work

Halse and Malfroy (2010) characterise supervision as professional work comprising the learning alliance, habits of mind, scholarly expertise, *technê*, and contextual expertise. Supervision includes professional work in which supervisors must engage and keep updated according to recent shifts and relevant developmental spaces that build their professional competencies (Halse & Malfroy, 2010; Pearson & Brew, 2002). Halse's (2011) findings also indicate that supervisors' learning experiences (through supervising doctoral researchers) shape their subjectivities and identities, as 'supervision is an ongoing ontological process of "becoming a supervisor"' (p. 557). The integration of the theory of 'becoming a supervisor' into supervisors' professional development (Halse, 2011) makes it one important consideration supervisors need to reflect on and relate to. However, supervisors' formation can both be related to self-reflection as well as collaboration with others (in various dialogues, participation in academic life, working, sharing, collaborating, and discussing with others), as well as engaging with assignments, literature, and peer observation in diverse formal settings (Amundsen & McAlpine, 2009; Halse, 2011; Huet & Casanova, 2021). Several scholars offer research-based and practical frameworks to rethink supervisory practices designed to meet doctoral researchers' needs for different supervisory approaches during their way toward dissertations (Halse & Malfroy, 2010; Lee, 2018; Wisker & Kiley, 2014). All these frameworks acknowledge doctoral supervision as a demanding and complex job that relies on the student, project, disciplinary area, individual experience, and personality (Amundsen & McAlpine, 2009). Scholars have pointed to the need to consider disciplinary differences closely related to specific contexts when understanding both supervisors' and candidates' situation (Lee, 2018).

Pedagogy, self-reflection, and dialogue have become a more central part of the professional development of supervisors. Huet and Casanova's (2022) systematic literature review on the professional development of doctoral supervisors revealed that learning occurs more often through self-reflection and dialogue in both formal and informal learning spaces and that there is a need to

focus more on the pedagogy. However, some supervisors and institutions are still unaware of the pedagogical possibilities associated with current professional development, and supervisors are still appointed 'by default' and do not see doctoral supervision as a challenge beyond supervising research (Bitzer & Albertyn, 2011; Lee & Green, 2009). The need for formal programs and workshops also relates to building awareness and coping with the complex roles and responsibilities that many supervisors often are expected to handle immediately after graduation, which sometimes demands a significant shift in identity, understanding of postgraduate pedagogy, and institutional expectations (Motshoane & McKenna, 2021, p. 387).

Asymmetric relationships might hinder a supervisor's professional work, and sometimes formal learning is needed to build the necessary awareness. Many supervisors still draw on traditional supervisory discourses with a strongly asymmetrical master-apprentice relation (Hammond et al., 2010; Lave & Wenger, 1991, p. 93; Vehviläinen & Löfström, 2016). Lee and Green (2009) argued that numerous supervisors are still deeply rooted in the 'arche-metaphors' of supervision: authorship, discipleship, and apprenticeship, which often shape supervisors' thinking in a way that defines supervisory practices. However, both experienced and unexperienced supervisors seem to be able to develop as supervisors. Wichmann-Hansen et al. (2020) have also found several positive impacts for experienced supervisors who attended a long-term mandatory development programme on: (a) supervisors' competence development and learning, (b) the local supervision culture, and (c) indirect effects on doctoral researchers' satisfaction with their supervisors. Formal professional programmes might also create problems described by supervisors, such as loneliness, insecurity, lack of rights, distress, and feelings of incompetence as a supervisor (Emilsson & Johnsson, 2007).

For mandatory development programmes to work, several researchers assert that a strong incentive structure from top management is essential, especially for experienced supervisors (Lee, 2018; Wichmann-Hansen et al., 2020). However, considerable resistance to compulsory centralised and formal professional development programmes is also evident, especially from more experienced supervisors who are often 'allergic' to programmes that could be interpreted as related to a quality assurance agenda of governments and university administrators (Manathunga et al., 2010; Wichmann-Hansen et al., 2020, p. 5). Wichmann-Hansen et al. (2020) argue that experienced supervisors do need professional development programmes because experience is not always equivalent to quality; many do not see themselves as 'learners', and the need for further development increases as the supervisor's responsibility and workload grows. If the ambition is to create cultural change at the senior level, senior academics are often positioned as those controlling

the local culture and should therefore be the leading target group for professional development programmes (p. 3).

Professional development as transformative learning

Theories of adult learning (Mezirow, 1978) point to experience and prior learning as fundamental notions relevant to understanding the supervisors' professional development of their praxis, especially the concept of transformative learning. Transformative learning refers to a deep structural shift in basic premises of thought, feelings, and actions, and is a type of learning that is complex and multifaceted as reflected in Mezirow's ten phases of transformative learning. This includes identifying dilemmas, self-examination, critical assessment of assumptions, recognition, and sharing with others. It also involves exploration and actions, implementation of plans for improvement, trying out new things, as well as building competence and self-confidence when performing new roles and relationships².

Mezirow (1985) addresses three types of learning that might be relevant in a formal development programme for doctoral supervisors: *instrumental* (assignments and task-oriented problem solving when, for example, supervisors identify a problem, formulate a course of action, try it out, observe the effects, and assess the results); *dialogic* (participants can discuss or question elements of their supervision or the organisational norms and assumptions); and *self-reflective* (directed towards understanding our practices and personal changes, developing the learners' identity and role, and recognising needs for self-change). In line with Mezirow, other adult learning theories also highlight the importance of learning as directly relevant to practices and the often implicit and informal parts of professional development (Evans, 2019).

A one-year mandatory programme for doctoral supervisors

The context of the study is UiT the Arctic University of Norway³. After organising minor voluntary courses from 2008 (20–25 participants), the university board decided that the programme for developing supervisors should be mandatory from 2017. The selected case is an eight-month-long compulsory development

² See Mezirow (1978) and Kitchenham (2008) to read more details.

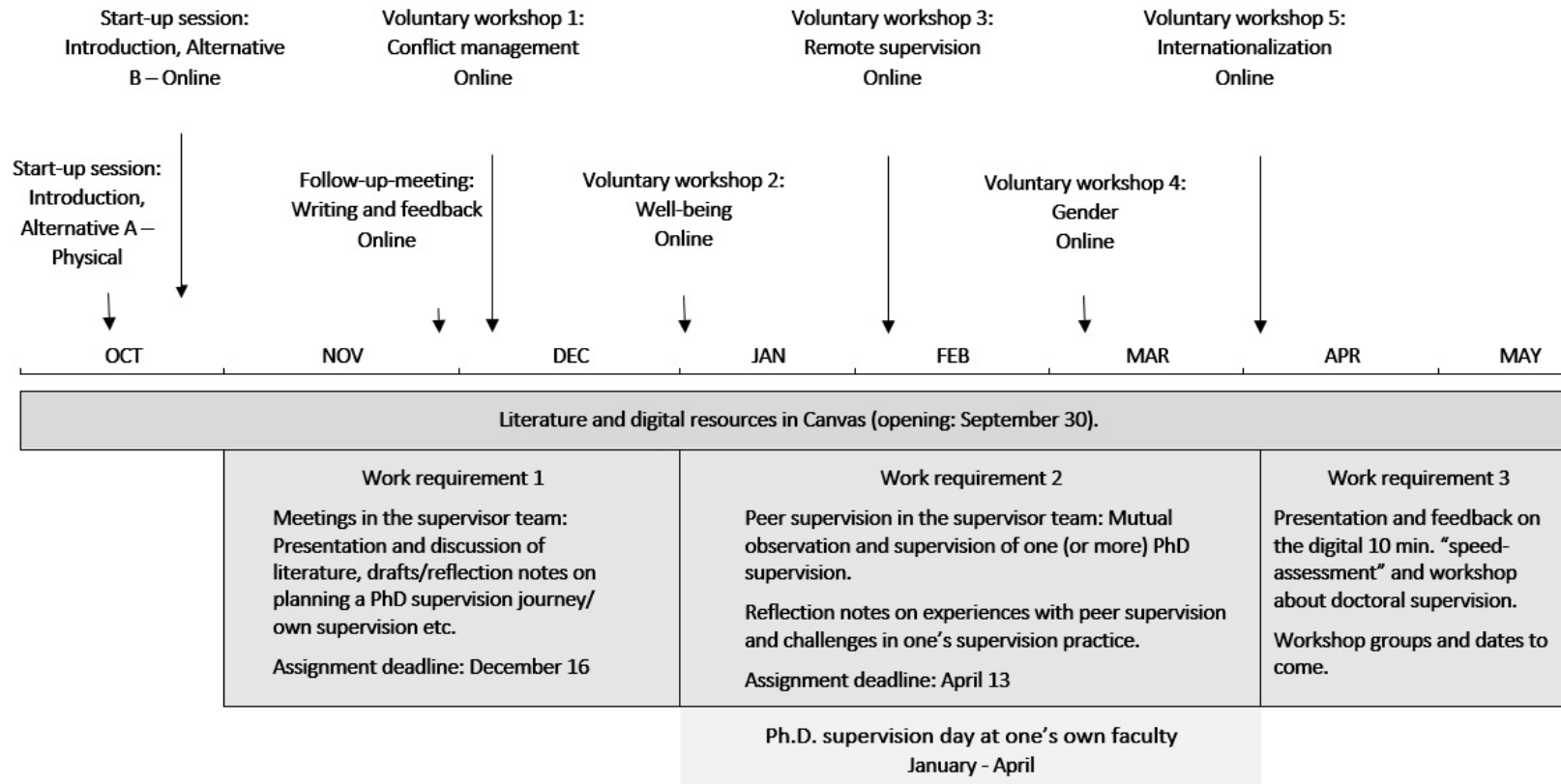
³ UiT is the northernmost university in the world. It is a medium-sized research university, where 15,500 students and 3,300 staff study and work within all classical subject areas from Health Sciences, Social Sciences, Education and Humanities, Science and Technology to Economics, Law, Social Work, Tourism, Sports, and Fine Arts. Its location on the edge of the Arctic, and with three recent mergers, UiT has become a multi-campus university spread throughout Northern Norway. This implies large distances between the 11 study sites.

programme for doctoral supervisors, aiming to develop approximately 90–100 supervisors enrolled each year. The supervisors' development was supported by literature, different learning resources in Canvas, gatherings, workshops, assignments, and collaboration in teams (4–5 supervisors from cross-disciplinary fields) throughout the program.

To obtain a final programme certificate, participants must attend three mandatory days (the start-up [full-day], the digital follow-up [half-day], and the faculty-specific supervision workshop [half-day], collaborate in supervisory teams (minimum 1–2 meetings), and complete three assignments. The programme differs from traditional courses/workshops, emphasising process-oriented and collegial learning. Supervisors participate in a supervisory team that collaborates with and supports each of its members when developing their doctoral supervision—through reflections, mutual observations, and feedback. This is also one of the main reasons why participants in the programme must be active main or co-supervisors during the programme period. Cross-disciplinary teams of 4–5 supervisors are organised for several reasons: to enable participants to gain insights into other supervision environments and ideas other than those they are familiar with in their own discipline, to expand their network beyond their local environment, and to discuss challenges with external colleagues who are not a part of or familiar with local challenges.

The programme provided obligatory and voluntary elements, illustrated as follows in Figure 1:

Figure 1. Timeline of the development programme in research supervision



Methodology

This paper reports on the surveys and interviews from this longitudinal case study on professional development of doctoral supervisors. Yin (2002) defines a case as ‘a contemporary phenomenon within its real-life context’ (p. 13). The selected case can be described as *unusual* (Palinkas et al., 2015, p. 4; Patton, 1990), as most institutional programmes are not mandatory, long-term, or aimed at all active doctoral supervisors. First, an anonymous survey with open-ended questions, covering topics related to their current supervisory practice challenges, and development needs was gathered before the participants started. 329 supervisors⁴ who were a part of the programme completed the survey (2018–2022). Second, rich stories about the supervisors’ practices and experiences during the development programme were captured through 21 semi-structured interviews approximately half a year after they had completed the programme. The sampling process stopped when saturation was reached, and not much new information was coming in. Inspired by Lee (2018), the interviews followed a list of ‘trigger’ questions that followed the participants’ individual stories about their experiences with supervision and the professional development programme in which they had participated. The transcriptions were reviewed, hand-coded, and thematically grouped. In line with the concept of ‘maximal variation’ (Patton, 1990, p. 176), the study included experienced and novice supervisors, of different age groups, gender, and disciplines. I designed and led the large-scale version of the programme during the whole period, which might have affected how I perceived and interpreted the data.

In line with Yin (2002), data analysis consisted of examining, categorising, and recombining quantitative and qualitative results to address the initial propositions of the study (p. 109). The analysis alternated between reading the transcript while considering theories about transformative learning and constructing codes and categorisations. The codes were compared and critically interpreted in an iterative abductive manner (Alvesson & Sköldbberg, 2017). Main categories were extracted from the transcript following an interactive process that allowed issues to be identified, critically interrogated, and categorised. These categories will be further elaborated upon in the next section. Validity was gained through a) the triangulation of multiple sources of evidence, b) internal validity using established analytic techniques such as pattern matching, c) external validity through analytical generalisation, and reliability (through the case study protocols and databases).

⁴ The numbers were as follows: 85 in 2018, 84 in 2019, 67 in 2020, 80 in 2021, and 93 in 2022.

Results

This section presents the five main categories as well as their subcategories derived from the supervisors' reflections on what doctoral supervisors find essential for their professional development.

1) Institutional responsibility and support: incentives and leadership

The first main category of what doctoral supervisors find essential for their professional development is an institutional responsibility, including (1a) prioritising the professional development of doctoral supervisors and (1b) involvement from local leaders.

1a, Prioritising the professional development of doctoral supervisors: For many of the doctoral supervisors, it was important that the institution clearly stated that their professional development was a prioritised field and that quality supervision is a central aim within the university. As one supervisor said: 'I enjoy the programme and all the topics are relevant. I can see why it must be compulsory'.

It seemed important that significant research-oriented leaders were involved at the one-and-a-half-day 'start-up' gathering. Wichmann-Hansen's (2020) findings from a development programme for experienced supervisors also drew the same conclusion, stating that a solid intensive structure was required to 'release' the potential of such programmes. However, Manathunga et al. (2010) warned against forcing supervisors to attend development programmes, particularly if a programme is perceived as representing only an administrative discourse, as it might cause more harm than good to participate. Although this programme was mandatory for both co- and primary supervisors, the supervisors had to apply actively. As one institute leader said: 'The fact that it is mandatory helps us to prevent some poor supervisors that do not attend the programme from getting new candidates.'

1b, Local leaders take ownership: The supervisors appreciated meeting "significant others" from different disciplinary fields during the programme, stating that supervisory development was necessary. Many supervisors also appreciated that influential research-oriented leaders took responsibility in relation to the programme. At the faculty-specific supervision workshop, halfway through the programme, local faculty leaders were challenged to facilitate a common platform to discuss and share experiences, expectations, and content relevant to the faculty supervisors. One of the supervisors, a professor with a leadership position, expressed the importance of this involvement:

Supervisors must get this kind of training; there is so much at stake. When the top leadership states that this is important, it's more accessible for a local leader to follow up. Supervisory teams should only be allowed to exist, with at least one of them having experienced the programme for the professional development of supervisors.

This quote illustrates that it matters that critical “key agents” with some institutional authority express the importance of the professional development of supervisors. According to Motshoane and McKenna (2021), supervisors need appropriate development, and they appreciate leaders' and administrative personnel's professionalism and involvement. According to McAlpine & Amundsen (2011), organisational development is unlikely to happen if the leaders do not support it. The “symbolic power” of the institutional engagement clearly seemed to matter for the supervisors. The involvement at multiple levels also supported the building of communities that could be further activated to support supervisors' development.

2) Transformative learning: personal investment of time and authentic experiences

The second main category essential for supervisors' professional development is the transformative learning aspects, including (2a) personal investment of time and (2b) transformative learning activities.

2a, Personal investment of time: Time was necessary to transform meaning by examining actions and content reflection. Considering what Mezirow refers to as a global view, where the thought is much deeper, more complex, and involves transformative elements, requires critical self-reflections of assumptions (Kitchenham, 2008). Although many supervisors expressed a positive attitude towards professional development, the workload was challenging. As one of the participants described: ‘This was a mandatory course, and I've been working seven days a week for quite a while now, so I haven't had much time to reflect on it.’

Even though most of the enrolled supervisors expressed an intention to develop as supervisors, some stated the opposite: ‘The course is compulsory, so I must get the required “approved” stamp. I feel very secure in the supervisor role, so I cannot identify any special needs’.

Several supervisors pointed to the lack of time and that they had to prioritise the “minimum requirements” to cope with their daily time-consuming academic responsibilities. The time that could be set aside for research supervision was limited. It seemed like a paradox when ‘learning to use time more efficiently’ and ‘becoming a better and more effective supervisor’ were some of the most common expectations expressed in the programme.

2b, Structuring a transformative learning experience—a balancing act: Even though the participants were presented with diverse opportunities for a transformative learning experience and possible developmental encounters with others, clear communication, and structure/overview of the high-quality content were essential. To prevent overload and to use the time effectively, the facilitation of the learning journey mattered.

However, the needs were not coinciding. Some wanted more (or less) literature, subject-specific focus, and fewer mandatory elements, while others said that it was useful to be challenged to reflect critically on their practice that made a difference. One supervisor expressed such expectations as follows:

The opportunity to think systematically and critically about my practice and get new input on theory and research-based knowledge about research supervision is important. In addition, there is new input and the opportunity to discuss how to deal with particularly challenging situations in supervision, together with other participants.

What the supervisors defined as ‘relevant’ for engaging with their own and others’ development differed, as well as their involvement in the preparations and activities before and during the program. In some cases, the obligatory elements triggered their interests and involvement, sometimes even when the involvement was low from the start. Participants could design their journey due to their development needs. Some voluntary workshops (see Figure 1 earlier) were considered essential in providing a space where supervisors could discuss and share core issues like gender and conflict management at a deeper level. Meeting experts and others with the same development needs became valuable. The participants could collaborate with others with the same interests and discuss specific challenges in a transformative manner.

The supervisory teams had a great deal of freedom to choose their level of ambition and what the participants in each team needed to develop. However, the amount of time the supervisory teams spent discussing and collaborating varied. Some teams chose to work mainly alone, while others worked closely with the assignments. Some also collaborated with supervisors from their faculty (whom they had met in other parts of the programme or knew from before) to further discuss issues related to supervisory practice. It clearly seemed that those who explored possibilities and challenges in the programme as a form of critical practice directly related to their challenges had a better chance of experiencing transformative learning.

3) Building a broader repertoire of approaches to supervision

The third main category that mattered to supervisors in their professional development was building a solid learning alliance, including (3a) learning how to map expectations and relate to diversity and (3b) developing a broader repertoire as a supervisor.

3a, Mapping expectations and relating to diversity: The supervisors wanted to learn more about understanding what doctoral researchers need in relation to their cultural differences, also to map expectations along the way and supervise in line with each doctoral researcher's different abilities, capacities, needs, and motivations. Supervisors especially appreciated learning how to map expectations, build awareness for diversity, motivate writing, learn tools to solve challenges, and learn about other new methodologies that could be useful to improve as a supervisor. One supervisor described it as follows:

I want more formal competence in Ph.D. supervision to lift my supervision skills to a new level. I hope to get some tools I can take into the supervision that can help both me and the candidate.

Developing their praxis included learning from theoretical models and building a broader repertoire of practical 'tools' and approaches to supervision. They wanted to develop generic competencies such as being more effective, systematic, and flexible, and to carry out more thoughtful, informed actions. Bringing attention to moral-social-political aspects within the research community or other complex and multifaced aspects of supervision was important. Aspects that involved the supervisory team—as well as local, national, and international working environments and networks, were another centre for their attention. However, the supervisors' core mission was to develop their ability to establish a solid start, map expectations along the way, and build a trustful, constructive, and healthy relationship with their supervisees. As one of the supervisors stated:

Building a trustful relationship, facilitating learning, professional growth, agency, and relevant student participation is our core business. However, they must find their way—and this is not always easy due to their limited time.

The supervisors appreciated working with theoretical and practical supervisory frameworks to improve their planning, feedback practices, and other parts of their working alliance with their student and supervisory teams. Many supervisors emphasised the importance of learning a broad spectrum of practical and constructive supervisory skills, like feedback techniques, that can help building

awareness of the asymmetric relationship between supervisors and supervisees, as one of the participants expressed it: ‘I expect to get some pedagogical skills and practical advice, which would help me to build a “flexible system” for adequate supervision’.

Most supervisors wanted to develop approaches to promote progression and provide constructive feedback on text. Still, aspects such as facilitating doctoral researchers’ growth and independence, diversity awareness, and relational elements were essential to development. Supervisors were learning both from reflecting and sharing how to build a trustful relationship and maintain a *professionally* beneficial personal relationship. Other essential aspects included developing awareness of doctoral researchers’ needs, vulnerabilities, well-being, as well as learning how to create a safe environment, and preventing/managing conflicts. The voluntary workshops also addressed conflict management and diversity (e.g., age, ethnicity, religion) and how these might affect supervision. Those especially interested also discussed in depth how to encounter diverse challenges, like stress, culture shock, and other things in the voluntary workshops (see Figure 1 for an overview of workshops).

4) Balancing complexity: building a relevant skillset and awareness about employability

The fourth main category that supervisors thought matters to their professional development includes (4a) getting an overview of the international and institutional requirements, (4b) learning how to pedagogically support employability and future work, and (4c) being an advocate to manage the many formal and informal requirements.

4a, International and institutional requirements: Many supervisors cared for doctoral researchers’ opportunities to find employment outside of academia after completion, although many supervisors were a bit overwhelmed by the many formal and informal requirements, knowledge, sets of skills and general competencies they were expected to consider and master. These skills and competencies could include career development, learning generic skills and communication, and promoting innovation, for example. Some supervisors felt the need to be updated on ‘the institution's attitude’ to relevant and changing information in the field. Others wanted overviews of the formal institutional requirements and expectations of a supervisor on matters that constantly change and require updating. For example, one participant said: ‘I need information about, for example, GDPR and how it affects supervision’. Supervisors appreciated

discussing the outline of competencies by Eurodoc⁵ and its qualification framework⁶. Supervisors debated what knowledge, skills, and general competencies doctoral researchers should have when completing their education as part of the programme. One supervisor said:

The national qualifications framework (NQR) points to the expected level supervisors and students should aim for. In the programme, we were asked to discuss and consider our role as supervisors regarding these aspects of our supervision. It was inspiring to listen to how other supervisors from different disciplines work and think about these matters.

When participants were challenged to discuss, for instance, how they ensure that doctoral researchers develop ‘advanced knowledge in their academic field’ or master ‘scientific theories in their field’, they related to their own experience. To discuss issues concerning methods, research, academic work, or development at a high international level’, their reflection on both formal requirements as well as their practice was also challenged. They learned from others’ reflections and discussed what different aspects mean within diverse academic disciplines.

4b, Employability and adequate pedagogical support: Supporting careers and working towards high-level intellectual goals in the field requires awareness and sophisticated pedagogical support, as well as a proper mapping of expectations from the very start. Many of the supervisors appreciated learning to perform an appropriate skills-and-goals analysis and to become aware of aspects of supervision leading toward future work. This could include discussing future employment or helping the doctoral researcher to build relevant professional relationships. Sometimes, the supervisor must be an ‘advocate’ for the doctoral researcher to support prioritising applicable duties or other formal and informal expectations: ‘It’s both a balancing act to help the student navigate the jungle of needed skills and a question of updating my skills’. The supervisors expressed a sense of the importance of discussing international and institutional requirements and the challenges they are expected to master with other supervisors. Many found the extensive expectations overwhelming and found it helpful to discuss constructive approaches with other supervisors from different parts of the institution.

Supervisors found it essential to discuss, for example, the conflicting institutional logic that might arise (opportunities, requirements/expectations, progress requirements, and to be able to develop as an original researcher with

⁵ <https://www.eurodoc.net/>

⁶ This was a part of the programme material. See the Eurodoc website or (NQF, Ministry of Education and Research, March 2009) for more information.

strong agency) as well as securing relevant work. This stands out as a balancing act, as one of the supervisors explained:

I know that many of my students will not stay in academia. At the same time, I feel that the scope of the requested researchers' skill sets is broadening daily.

Some of the supervisors remarked that they sometimes need to listen very carefully to the student's own motivation and career plans, to ensure a relevant balance between their "work-related" interests, the institutional expectations and requirements (that can be time-consuming and not directly relevant for the project), and the actual work that needs to be done in the project. This balancing act can be hard as it 'can be tempting not to focus on the core elements to get started, especially in the beginning, as they easily postpone the hard work and end up frustrated', as expressed by a supervisor when discussing the balance between employability and academic requirements.

5) Interactions and identity formation across disciplinary communities and campuses

The fifth main category that supervisors find essential for their professional development concerns (5a) their formation as supervisors and (5b) the building of a larger community of supervisors across campuses.

5a, Supervisor's identity formation: The most important activity in the programme concerning building awareness about the supervisor's supervision and their becoming (or development) as a supervisor appeared in the collaborative and reciprocal process of peer observation⁷. Participating in mutual colleague supervision through observing and being observed (once or twice) by colleagues within the supervisory team was obligatory⁸. The supervisors requested responses (on challenges or issues they wanted to develop in their own supervision) before the observation took place. The underlying rationale was to prepare, have a pre-conversation, observe, and encourage (continued) critical reflection between the observer and the "observed" after the observation. Those supervisors who used these conversations to open up and build a safe and trustful community in the small

⁷ During the Covid-19 pandemic, it was possible to participate physically or virtually, and to record the supervision and send it to the observers. The number of observers was decided within the supervisory teams and clarified with the doctoral researchers.

⁸ The supervisors within the teams decided themselves whether they needed more than one observational session.

teams of 3-4 supervisors described it as a developmental activity that led to important exchanges and networks.

Peer feedback often represented a triple learning opportunity for the supervisor. First, the supervisors examined their own challenges and developmental needs in their own practice and requested specific feedback that they wanted from the observers. Second, the observation triggered reflections, feedback, and discussions about shared experiences and change processes. Sometimes, exploration, planning, and trying out new roles and actions took place, to build competence and self-confidence. The observers from the supervisory teams reflected on the feedback the supervisor had asked them to pay special attention to. Then they provided more general comments on, for example, verbal and non-verbal conversations, structure and order of themes, ways of giving feedback, seeing, and understanding doctoral researchers' responses, and other aspects being shaped through the experience of authentic supervision. Third, the supervisor discussed and 'meta-reflected' on the feedback they received, both together with the observers (and sometimes also the doctoral researcher) and in the second assignment of the programme (where their experiences with peer observation and their challenges as supervisors were the main issue). Interestingly, both relatively new and experienced supervisors expressed insecurity and development needs. In the supervisory teams, those with 'fresh' experiences from being doctoral researchers themselves had critical reflections about supervision. Many found that different supervisor approaches to the same challenges sparked insightful discussions.

5b, Formation across distances—building a larger community of supervisors: The selected institution had 11 study sites, including four campuses geographically spread between huge distances. Meeting and building a larger community with other supervisors were crucial for the supervisors at the smaller sites. Diverse opportunities to learn, discuss, and collaborate with leaders and other supervisors from other communities provided potentially rich sources for self-reflection, dialogue, and further development as a supervisor (Huet & Casanova, 2021):

Just having the opportunity to focus on your practice and tell others about it. Telling and sharing with others and justifying what I do has been very valuable to me. I think it will be useful to get to know myself as a supervisor, to try out approaches, that I can use that feel authentic.

The opportunity to collaborate across campuses was significant especially for the supervisors from smaller study sites, with few doctoral supervisors in the local environment. Even though we do not know in detail how the assignments and team

collaboration triggered transformative experiences or changed how the supervisors “see the world”, perspectives, attitudes, and behaviours shifted. However, we do know that these communities enabled critical discussions that challenged the supervisors to re-examine their supervision. Those who created a trusting and open relationship also found a space to be honest about their insecurities and challenges. Some used the opportunity to discuss their uncertainty about not being good enough, struggles with understanding the doctoral researcher, knowing if their approaches were helpful, or handling a lack of confidence concerning aspects they had not mastered well, such as cultural differences. However, many queries and perspectives came up in the smaller cross-disciplinary workshop that opened avenues for further reflections and discussions: ‘It was interesting to get to know some of the challenges supervisors from different disciplines struggle with. This allowed me to contact them later or build a “trustful community” outside my daily workplace’. Some supervisors gained a kind of ‘anthropological’ experience where they both learned and developed their repertoire as supervisors, with an opportunity to ‘mirror’ their expectations with supervisors coming from totally different contexts.

Discussion

This paper provides a unique picture of a formal, large-scale, mandatory professional development programme covering 11 study sites for doctoral supervisors. In this section of the paper, the implications of the findings are discussed in two sections: (1) the supervisors’ professional development and learning; and (2) the future of professional development programmes for doctoral supervisors. Finally, the institutional recommendations, limitations, and conclusion are outlined.

What are the implications for professional development and doctoral supervisors' learning?

The results indicate that the professional development of supervision can be defined as an area of professional practice (Lee & Boud, 2009). Based on what the doctoral supervisors find important, crucial aspects concerning the doctoral supervisors' learning were revealed. The process of self-examination, critical reflection about their challenges, explorations, and planning how to solve their own and others' needs and challenges, were supported through three aspects: 1) dialogues with significant others (leaders, other supervisors, their supervisory team); 2) self-reflection; and 3) engagement with relevant high-quality content. This concurs with theories of adult learning. Supervisors could express and draw on their experience and prior learning to inspire and challenge each other across disciplinary differences to develop their praxis. In line with Mezirow (1985), this became a transformative learning experience for some doctoral supervisors, who referred to a profound structural shift in basic premises of thought, feelings, and actions. As expected, the supervisors who invested time and effort in their learning process got the most out of the programme. Peer observation and supervising others have also been found highly rewarding by other scholars (Amundsen & McAlpine, 2009; Halse, 2011).

Even though there is a need for further research that more closely follows different aspects of the supervisors' learning process in formal programmes, the findings of this study have critical implications for the professional development of supervisors' learning within higher education. The results express the importance of designing programmes in which doctoral supervisors can experience institutional support and tailor their learning processes in relation to a specific broader spectrum of themes. It is also crucial to be aware of the supervisor's limited time and that the combination of obligatory and voluntary requirements is directly relevant to their possible learning needs. In line with Mezirow (1985), it is clear that a developmental programme for supervisors should include the three types of learning described above: *instrumental*, *dialogic*, and *self-reflective*. These distinct types of learning also have their own dynamics that require further investigation. However, the findings demonstrate that this cross-disciplinarity provides a rich source of learning and gaining unique insights into other supervisory cultures that challenge the supervisors' perceptions of doctoral supervision and provide a broader view of the field and supervisors' practices. There should be flexibility for the supervisors to determine what resources they require to meet the developmental needs represented in their supervisory teams, which are the core units of the programme.

Even though professional development is framed within a national and institutional context that matters for the learning process, it can be argued that the findings reveal that the large-scale supervisory programmes studied represent a

kind of “supervisory microcosmos” with rich learning opportunities across institutional levels and sites. Supervisors from different academic fields gain the unique opportunity to challenge, re-think, and develop their praxis as supervisors within diverse learning spaces. Potential in-depth conversations and the possibility of being involved in each other’s learning process is a rare chance that is usually “out of reach” in their academic community. Following their developmental process in a close supervisor team also opened opportunities for the supervisors to share and discuss challenges in a “safe space” outside their educational environment.

Implications for the quality of professional development programmes for supervisors?

The five identified categories of what doctoral supervisors find essential for their professional development in a mandatory large-scale programme for doctoral supervisors have the potential to influence how higher educational institutions can think about professional development for doctoral supervisors in the future. The professional development of supervisors must be designed in line with doctoral supervisors’ actual and diverse learning needs, where their diversity and different disciplinary backgrounds are accounted for and seen as a resource. This has implications for the structure and planning of these kinds of development programmes in line with each institution’s resources and support.

It also seems important to map doctoral supervisors’ actual needs within each institution. This does not imply that supervisors always know precisely what their knowledge needs are. However, a thoughtful and constructive balance between obligatory and voluntary core elements should exist, so that the participants can meet their development needs. However, this is not enough, as the findings underline that institutional responsibility for the professional development of doctoral supervisors has a much broader scope. The institutional recommendations could be listed as follows:

1. Acknowledge that enhanced doctoral supervisors’ learning and development is seen and expressed as a core institutional responsibility with a potentially massive impact on supervising doctoral researchers’ and supervisors’ professional development.
2. Build high-quality resources with flexibility in workflow, requirements (both mandatory and voluntary), and learning formats (individual, supervisory teams, faculty, and cross-disciplinary), with solid organisational anchoring.
3. Address various practical aspects (knowledge-based techniques, strategies) as well as opportunities to challenge supervisor preconceptions and their process of “becoming” a supervisor across disciplinary differences and distances.

4. Include experience and prior learning as key notions in the professional development of supervisors' praxis, as well as strive to facilitate experiences of transformative learning—experienced across disciplinary contexts.
5. Acknowledge that developing supervisors' praxis refers to thoughtful, informed actions, attention to moral-social-political aspects, and a notion of public good within higher education.

Based on the above list, a mandatory, large-scale professional development of supervisors might be the answer for higher educational institutions that want to emphasise that supervisors' professional development might be important for all doctoral researchers and supervisors across distances and campuses. Even though such a professional development programme might be mandatory or not (which can have both advantages and disadvantages), it seems significant that it is of high quality, supports the actual development processes that supervisors need, and is reinforced as important by institutional leadership. This indicates that the institution takes this kind of professional development seriously, as the supervision of doctoral researchers is an international challenge. Even though substantial national and institutional differences exist and must be considered, an increasing number of doctoral researchers and supervisors face similar challenges that each institution must address. However, in countries where professionalisation is not widely adopted by the higher education sector, large-scale formal development programmes for doctoral supervisors might be more difficult to organise as they might be imagined as “useless” or time-consuming. Even though doctoral supervisors' formal training and professional development often require institutional engagement over time, one core aspect is that doctoral supervisor development must be seen as rewarding and useful for both supervisors and the institution. However, to become transformative learning experiences for doctoral supervisors, it seems crucial to include what supervisors themselves think matters when developing their own professional development.

Limitations

One limitation of this paper is that it only includes the five most prominent findings of the analysis. Future exploration of the less prominent findings might also be fruitful. The professional development of doctoral supervisors occurs in many forms, shapes, and institutional contexts. This study only reports on one mandatory large-scale case, in one national context in which large-scale programmes are not very common. There is a need for further research on multiple formats of formal development programmes for doctoral supervisors, as well as studies that explore the supervisors' learning process and institutional responsibility for doctoral supervisory development in much more detail. We also need more research on

supervisors' learning and professional development outside, around, and beyond large-scale formal development programmes to know in more detail how and why formats differ. There is also a need to know more about the supervisors who do not attend such programmes, as this study only mapped those who voluntarily enrolled, which might have affected the findings.

There was no systematic mapping of each participant's actual investment of time and detailed questions concerning their learning process from the beginning to the end. As the surveys were anonymous, each participant could not be tracked to ask for more details. It could be argued that the fact that the questionnaires were bound to a mandatory programme might be a source of confirmation bias. However, the construction of multiple data sources constructed a more complex picture of the case. The supervisors could also speak out more freely about their challenges, as no one would identify them.

Conclusion

This paper has explored what doctoral supervisors find important for their own professional development when developing their own supervisory praxis in a mandatory large-scale professional development programme for doctoral supervisors. Although the needs are different and a certain degree of flexibility is crucial in such a program, the findings revealed that developing doctoral supervisors' praxis should be seen as a complex pedagogical responsibility with implications both for institutions and the development of individual doctoral supervisor's praxis. Professional development of doctoral supervisors that accounts for quality depends on (1) institutional responsibility and support, (2) transformational learning, (3) building a broader repertoire of approaches to supervision, (4) learning to manage complexity, and (5) interaction and identity formation within supervisory communities.

There is no "one-size-fits-all-formula" for becoming a professional doctoral supervisor. Moreover, national, and institutional frames represent different contexts for learning and professional development. However, a case representing a research-intensive university with several broad-ranging disciplines and contexts sends a strong message about what matters for supervisors' learning and development across academic territories and geographical distances. To conclude, becoming a professional doctoral supervisor means developing knowledge, skills, and general competencies essential for supervisors to perform their jobs well. This does not mean that supervisors cannot be talented without some form of formal training or that competence cannot be built through several approaches or communities. However, as we know that the quality of supervision has a huge

impact on doctoral researchers' process and that supervising doctoral researchers have significant personal, institutional, and societal costs when doctoral researchers do not complete their studies, the paper sends a strong message that higher educational institutions need to take responsibility for supporting professional supervisory development. Establishing such programs and taking such institutional responsibility means seriously building on relevant research and practices, as well as thoughtful and informed actions and reflexivity related to the moral-social-political aspects of doctoral supervision. Facilitating professional supervisory development therefore means building on a notion of the public good within higher education, as well as providing a transformative learning experience for doctoral supervisors. Finally, it means including what matters for doctoral supervisors themselves when professionally developing their doctoral supervisory praxis.

Acknowledgments

I would like to thank the reviewers of the paper and JPHE editors, as well as Gina Wisker, who commented on one version of the paper.

Author biography

Trine Fosslund's current role is Professor of Higher Education at UiT, The Arctic University of Norway, Centre for Teaching, Learning, and Technology, and Professor II at BI Norwegian Business School's Resource Centre for Teaching, Learning, and Technology. At both institutions, she is involved in supervisor development. At UiT, she has responsibility for the professional development programme for doctoral supervisors. She teaches and supervises diverse courses on teaching and learning in higher education and is the head of the research group researching higher education at UiT. She also leads a national group responsible for evaluating the institutional responsibility for the professional development of research supervisors in Norway.

References

- Alvesson, M., & Sköldberg, K. (2017). *Reflexive methodology: New vistas for qualitative research*. SAGE.
- Amundsen, C., & McAlpine, L. (2009). 'Learning supervision': Trial by fire. *Innovations in Education and Teaching International*, 46(3), 331–342.
- Bitzer, E. M., & Albertyn, R. M. (2011). Late entrants into the academic profession: Conceptual constructions of hope in a faculty of education. *South African Journal of Higher Education*, 25(1), 70–84.
<https://doi.org/10.10520/EJC37670>
- Bitzer, E. M., Trafford, V. N., & Leshem, S. (2013). 'Love it when you speak foreign': A trans-national perspective on the professional development of doctoral supervisors in South Africa. *South African Journal of Higher Education*, 27(4), 781–796.
<https://journals.co.za/doi/pdf/10.10520/EJC150427>
- Buirski, N. (2022). 'Ways of being': A model for supportive doctoral supervisory relationships and supervision. *Higher Education Research & Development*, 41(5), 1387–1401.
<https://doi.org/10.1080/07294360.2021.1910209>
- Emilsson, U. M., & Johnsson, E. (2007). Supervision of supervisors: On developing supervision in postgraduate education. *Higher Education Research & Development*, 26(2), 163–179.
<https://doi.org/10.1080/07294360701310797>
- Evans, L. (2019). Implicit and informal professional development: What it 'looks like', how it occurs, and why we must research it. *Professional Development in Education*, 45(1), 3–16. <https://doi.org/10.1080/19415257.2018.1441172>
- Halse, C. (2011). 'Becoming a supervisor': The impact of doctoral supervision on supervisors' learning. *Studies in Higher Education*, 36(5), 557–570.
<https://doi.org/10.1080/03075079.2011.594593>
- Halse, C., & Malfroy, J. (2010). Retheorizing doctoral supervision as professional work. *Studies in Higher Education*, 35(1), 79–92.
<https://doi.org/10.1080/03075070902906798>
- Hammond, J., Ryland, K., Tennant, M. C., & Boud, D. J. (2010). Building research supervision and training across Australian universities. University of Technology, Sydney: Australian Learning and Teaching Council.
<http://www.altc.edu.au>
- Huet, I., & Casanova, D. (2021). Exploring the professional development of online and distance doctoral supervisors. *Innovations in Education and Teaching International*, 58(4), 430–440.
<https://doi.org/10.1080/14703297.2020.1742764>

- Huet, I., & Casanova, D. (2022). Exploring the professional development of doctoral supervisors through workplace learning: A literature review. *Higher Education Research & Development*, 41(3), 774–788. <https://doi.org/10.1080/07294360.2021.1877629>
- Ives, G., & Rowley, G. (2005). Supervisor selection or allocation and continuity of supervision: Ph.D. students' progress and outcomes. *Studies in Higher Education*, 30(5), 535–555. <https://doi.org/10.1080/03075070500249161>
- Kandlbinder, P., & Peseta, T. (2009). Key concepts in postgraduate certificates in higher education teaching and learning in Australasia and the United Kingdom. *International Journal for Academic Development*, 14(1), 19–31. <https://doi.org/10.1080/13601440802659247>
- Kiley, M. (2011). Developments in research supervisor training: Causes and responses. *Studies in Higher Education*, 36(5), 585–599. <https://doi.org/10.1080/03075079.2011.594595>
- Kitchenham, A. (2008). The evolution of John Mezirow's transformative learning theory. *Journal of Transformative Education*, 6(2), 104–123. <https://doi.org/10.1177/1541344608322678>
- Kobayashi, S., Berge, M., Grout, B. W. W., & Rump, C. Ø. (2017). Experiencing variation: Learning opportunities in doctoral supervision. *Instructional Science*, 45(6), 805–826. <https://doi.org/10.1007/s11251-017-9422-4>
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.
- Lee, A. (2018). How can we develop supervisors for the modern doctorate? *Studies in Higher Education*, 43(5), 878–890. <https://doi.org/10.1080/03075079.2018.1438116>
- Lee, A., & Boud, D. (2009). Framing doctoral education as practice. In D. Boud & A. Lee (Eds.), *Changing practices of doctoral education* (pp. 10–25). Routledge.
- Lee, A., & Green, B. (2009). Supervision as metaphor. *Studies in Higher Education*, 34(6), 615–630. <https://doi.org/10.1080/03075070802597168>
- Manathunga, C., Peseta, T., & McCormack, C. (2010). Supervisor development through creative approaches to writing. *International Journal for Academic Development*, 15(1), 33–46. <https://doi.org/10.1080/03075079.2011.594595>
- Marginson, S. (2007). The public/private divide in higher education: A global revision. *Higher Education*, 53(3), 307–333. <https://doi.org/10.1007/s10734-005-8230-y>
- McAlpine, L., & Amundsen, C. (2011). Challenging the taken-for-granted: How research can inform doctoral education policy and practice. In L. McAlpine

- & C. Amundsen (Eds.), *Doctoral education research-based strategies for doctoral students, supervisors and administrators*. (pp. 185–202). Springer.
- McCormack, C. (2009). Stories return personal narrative ways of knowing to the professional development of doctoral supervisors. *Studies in Continuing Education*, 31(2), 141–156.
<https://doi.org/10.1080/01580370902927485>
- McCormack, C., & Pamphilon, B. (2004). More than a confessional: Postmodern groupwork to support postgraduate supervisors' professional development. *Innovations in Education and Teaching International*, 41(1), 23–37.
<https://doi.org/10.1080/1470329032000172694>
- McCulloch, A., & Loeser, C. (2016). Does research degree supervisor training work? The impact of a professional development induction workshop on supervision practice. *Higher Education Research & Development*, 35(5), 968–982. <https://doi.org/10.1080/07294360.2016.1139547>
- Mezirow, J. (1978). Perspective transformation. *Adult Education Quarterly*, 28(2), 100–110. <https://doi.org/10.1177/074171367802800202>
- Mezirow, J. (1985). A critical theory of self-directed learning. In S. Brookfield (Ed.), *Self-directed learning: From theory to practice* (pp. 135–150). Jossey-Bass.
- Motshoane, P., & McKenna, S. (2021). Crossing the border from candidate to supervisor: The need for appropriate development. *Teaching in Higher Education*, 26(3), 387–403.
<https://doi.org/10.1080/13562517.2021.1900814>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533–544. <https://doi.org/10.1007/s10488-013-0528-y>
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*, 2nd ed. SAGE.
- Pearson, M., & Brew, A. (2002). Research training and supervision development. *Studies in Higher Education*, 27(2), 135–150.
<https://doi.org/10.1080/03075070220119986c>
- Vehviläinen, S., & Löfström, E. (2016). 'I wish I had a crystal ball': Discourses and potentials for developing academic supervising. *Studies in Higher Education*, 41(3), 508–524.
<https://doi.org/10.1080/03075079.2014.942272>
- Wichmann-Hansen, G., Godskesen, M., & Kiley, M. (2020). Successful development programs for experienced doctoral supervisors: What does it take? *International Journal for Academic Development*, 25(2), 176–188.
<https://doi.org/10.1080/1360144X.2019.1663352>

- Wisker, G., & Kiley, M. (2014). Professional learning: Lessons for supervision from doctoral examining. *International Journal for Academic Development*, 19(2), 125–138. <https://doi.org/10.1080/1360144X.2012.727762>
- Wisker, G., & Robinson, G. (2013). Doctoral ‘orphans’: Nurturing and supporting the success of postgraduates who have lost their supervisors. *Higher Education Research & Development*, 32(2), 300–313. <https://doi.org/10.1080/07294360.2012.657160>
- Yin, R. K. (2002). *Case study research: Design and methods*. Thousand Oaks, CA: SAGE.