The Hidden Curriculum in Doctoral Education

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Overview of the Book

Abstract Are you curious as to what this book is about? Ascertaining who may benefit from this book is our starting point. We then offer our rationale for writing on a subject, that is, the hidden curriculum, that although less recognised is something we collectively regard to be crucial and fascinating. Our whole book reflects a conceptual journey—from investigating the hidden curriculum and how it is intertwined with the formal curriculum to sharing well-tested and effective ways of realising hidden curriculum ideas. The book ends with reflective questions addressed to those whom we regard as the hidden curriculum agents in doctoral education. May these questions serve as our invitation to examine the complex but rich doctoral learning landscape and, in turn, leverage what hidden curriculum offers.

Keywords Background information • Purpose of the book • Scope of the book

Whom Is This Book For?

If you are a doctoral researcher, a supervisor, a researcher developer, a mentor, a researcher in doctoral education, a PhD programme leader, a Graduate School manager, or anyone who works with, supports, or is simply interested in doctoral education, we would say that this book is for you. For clarity, providing a diagram helps illustrate the various audiences to whom we would like to communicate the messages concerning the nature and implications of the hidden curriculum for doctoral education,

starting with doctoral researchers themselves. By extension, we would like to contribute to the debate on improving the quality of research culture informed by both personal efforts and institutional communities.

Graduate School Leaders or Managers

Researcher Development Professionals

Doctoral programme administrators

Mentors, coaches, counsellors

Supervisors

Post-docs (with co-supervisory roles)

Doctoral researchers

Guardian supervisors

International community

Publishers, editors, translators proofreaders

Family

Friends

Clubs & societies

Professional networks & organisations

Significant others

Significant others

Main readers of this book

Starting with an enquiry into how the notion of the hidden curriculum is understood and enacted in various contexts, it progresses to a conceptual journey as we seek and offer research-based combined with experience-based perspectives on this subject. This leads to proposing fresh insights into the doctoral ecology with a view to realising the hidden curriculum while continually clarifying its connection with the formal doctoral curriculum.

Why Write a Book on the Hidden Curriculum?

One of the issues that contributed to the seemingly deliberate neglect in exploring this topic is the negative connotation originally attached to the hidden curriculum as depicted in all seminal books on this subject. As a case in point, Gair and Mullins (2001, p. 23) alluded to the hidden curriculum by 'suggest[ing] the intentional acts to obscure or conceal'. Other examples of conceptualisations from Jackson (1968), Martin (1994), and Snyder (1971) share this negativity—whether referring to unwanted classroom activities, learning environments, or social interactions—all of which have been recognised to exist although not originally intended to be part of the official curriculum. Additionally, the 'obscure and imprecise nature' of the term may also account for why this topic has essentially remained, marginalised, especially in doctoral education (Elliot et al. 2016, p. 740).

Our book is a move away from this early negative conceptualisation of the term. While retaining the 'hiddenness' of this type of curriculum, we instead pursue a conceptualisation of the term that by and large embraces the positive dimensions of this concealed curriculum (Elliot et al. 2016). This comes with an affirmative message that doctoral researchers (and those who support them) need to consider searching, harnessing, and even promoting what the hidden curriculum can offer. In response to the inherent vague nature of the hidden curriculum, it is also our collective aim to elucidate the meaning as well as the significance of the hidden curriculum by going beyond the definition, description, and a few examples.

Within the doctoral studies context, we have, therefore, endeavoured to expound the hidden curriculum in order to bring clarity to a few crucial questions:

- What does the hidden curriculum look like?
- Where is the hidden curriculum situated (in relation to the official curriculum)?
- Can we recognise the hidden curriculum if we encounter it?
- How can we maximise the benefits that the hidden curriculum offers?
- What difference can harnessing the hidden curriculum make in one's doctoral learning experience?
- What does a greater understanding of the term imply for hidden curriculum agents?

With this in mind, we then examine what the hidden curriculum is. What makes it a subject worth writing about in great detail? Drawing upon the various roles we (the four authors) serve in—as Graduate School leader, researcher developer, learning designer, mentor/coach, tutor, and/or doctoral supervisor, we have written this book with all the doctoral researchers in mind with whom we have had the privilege of working and interacting. Collectively, we have worked with numerous doctoral researchers over the last ten years. Our wealth of lived experience complemented by our shared interests as doctoral education researchers fuelled our passion to write a book on a fundamental topic that is often eclipsed by its more visible counterpart, that is, the official curriculum.

Against the current primary focus on the official curriculum, we argue throughout the book how the hidden curriculum, which consists of all unofficial channels of genuine and useful learning, can be acquired either within or outwith academia. This is not surprising given that the hidden curriculum tends to lie at the periphery of the formal structure, and in turn, it often remains unrecognised. Seemingly, this has been the case since the beginning of doctoral education. As we argue throughout the book, anyone can consciously (and strategically) search, find, and benefit from the hidden curriculum. Our own research findings strongly support that those who are able to tap into the resources of the hidden curriculum tend to gain considerably from the experience.

This extra learning from the hidden curriculum could be regarded as stand-alone or something that can reinforce learning obtained from the official curriculum and therefore enrich their overall doctoral studies. Knowing the great potential from the hidden curriculum has inspired us to raise greater awareness, or even expose its existence, and explain what it is like or how it can be found and, more importantly, how it could potentially make a qualitative difference to the experience of those who succeed in harnessing it.

How We Structured This Book

The overall structure of our book reflects a conceptual journey. This book has three parts, and each part comprises three chapters. In Part I, we explain where our preliminary ideas on the hidden curriculum came from and why, specifically, it is crucial for all doctoral researchers to comprehend this topic. With the four stages of competence serving as a framework, our initial conceptualisation of how the formal and hidden curricula are

interlinked is discussed and visually presented in Chap. 1. This then leads to a conceptual exploration of the hidden curriculum as experienced by doctoral researchers in general. Chapter 2 revisits the contemporary state of play in doctoral education, which further strengthens our rationale for examining this topic in depth. In Chap. 3, we discuss in greater detail a psychological explanation for how the hidden curriculum is conceived somewhat differently with respect to the international cohort's experience as we take into account their cross-cultural experience and how it is essentially embedded in their doctoral studies.

Part II is a detailed exploration of the hidden facets and players in both the formal and informal doctoral curriculum. After identifying the various key players in doctoral education in Chap. 4, we proceed to elaborate on the idea of navigating the rich tapestry of opportunity presented by the hidden curriculum, while not losing sight of doctoral researchers' ownership of how the hidden curriculum needs to be employed to align with their academic goals and professional objectives. Recognising the uniqueness of each doctoral researcher, Chap. 5 considers how their diverse past, ongoing lives, and personal and professional motivations for pursuing a PhD are important considerations when supporting them via the hidden curriculum, in their research development and beyond, that is, towards academic independence—stressing the value of personal and professional networks they develop along the way. Chapter 6 then offers a wealth of practical examples from observed practices in selected universities.

As for the final part, Part III brings forth new ways of thinking and new models for promoting, enacting, and harnessing the pedagogical rewards of the hidden curriculum in conjunction with the official curriculum. Chapter 7 discusses a 'doctoral learning ecology model', which contextualises the different ecological levels, in which hidden curriculum-based types of learning can take place and for which we offer exemplar scenarios. This theme continues in Chap. 8 as we present the expanded doctoral pedagogy. Capitalising on the key role of the supervisors, the 'doctoral support model' specifically offers both doctoral researchers and their supervisors a possible framework to work within. At the end of our conceptual journey, we offer in Chap. 9 a comprehensive definition of what the hidden curriculum means for all stakeholders. We stress in this chapter how the hidden curriculum is not merely instrumental for coping, but more importantly for thriving in the doctoral education experience. Harnessing the hidden curriculum is not simply aimed at reinforcing learning from the formal curriculum, but also at maintaining and sustaining

the psychological wellbeing of the doctoral researchers. Overall, we would like to communicate a strong message aimed at empowering doctoral researchers, their supervisors, researcher developers, and the rest of the staff members who work hard to support the entire doctoral community— a conscious and deliberate effort to harness what the hidden curriculum offers can help maximise the possibility of experiencing a more productive, meaningful, healthy, and even an enjoyable doctorate.

It does not come as a surprise that integral in our overall discourse, we propose the importance of having a shared vision and greater inter-reliance among key stakeholders to realise a successful integration of the formal and the hidden curricula. This, we argue, is key to accessing a more meaningful doctoral learning experience with supportive and empowering research environments and cultures from the doctoral community. Therefore, the final chapter ends with a few reflective questions and considerations addressed to those we regard to be the hidden curriculum agents in doctoral education, that is, doctoral researcher themselves, supervisors, researcher developers, and higher education institutions.

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The Hidden Curriculum in Doctoral Contexts

What Is the Hidden Curriculum?

Abstract Using one of our earlier papers entitled 'Hidden treasure: successful international doctoral researchers who found and harnessed the hidden curriculum' as a catalyst, we present a conceptual understanding of the hidden curriculum within the doctoral studies context. We also aim to crystallise and provide examples for the 'process' and the 'product' situated in both formal and hidden curricula in the doctoral studies context. We then offer a psychological framework using the four stages of competence leading to a discussion on harnessing the hidden curriculum. Overall, this chapter highlights practical insights into how doctoral researchers can take advantage of, be supported, and maximise what the hidden curriculum can offer. This is for them to achieve a truly transformative doctoral experience while staying physically and psychologically well.

Keywords Formal and hidden curriculum • Doctoral education • Process and product • Stages of competence • Transformative growth • Psychological wellbeing

> *Within a study sojourn, it is recognised that invisible learning opportunities abound.*
> (Elliot, Baumfield, Reid, & Makara, 2016, p. 745)

What Do 'Learning' and 'Hidden Curriculum' Mean in the Doctoral Studies Context?

Simply speaking, we regard the hidden curriculum in doctoral education as the unofficial (and informal) channels of genuine and useful learning that can be acquired within or outwith both the physical and metaphorical walls of academia. By contrast, the formal curriculum from which knowledge is specifically gained by study refers to activities where learning is typically acquired via the official (or structured) doctoral courses, seminars, workshops, and supervisory meetings—strictly within what we regard to be the academic setting. Although the hidden curriculum may also reinforce the more visible formal curriculum, doctoral researchers may reap the benefits of the hidden curriculum if it is found. Due to both the 'hiddenness' and prized characteristics of the hidden curriculum, we refer to these informally acquired skills or knowledge as doctoral 'treasure'!

In understanding the hidden curriculum, our preliminary ideas come from an earlier article, which examined frequently unrecognised 'treasure' encountered by those who pursue doctoral education in an international setting (Elliot, Baumfield, Reid, & Makara, 2016). This notion served as a useful starting point. Although the primary focus of that article was on international doctoral researchers, the idea of the hidden curriculum arguably applies to all doctoral researchers. With this in mind, we aim to present an in-depth exploration of 'the hidden curriculum', contextualised in the light of the general doctoral education journey, while taking into account the experiences of local and international doctoral researchers alike.

It seems that the best place to start when exploring the conceptualisation of the hidden curriculum is to consider what the term 'learning' entails. According to the Oxford Dictionary of Psychology (Colman, 2015), learning characterises 'the act or process of acquiring knowledge or skills, or knowledge gained by study' (p. 16). Such a definition appears to highlight at least two systems or modes: learning from informal experience and intended formal learning, in which 'knowledge' can be obtained. We will argue and discuss in greater depth how these modes are inseparable in doctoral researchers' day-to-day experiences of 'learning'.

Let us begin by picturing three doctoral learning scenarios….

Scenario 1

Two international doctoral researchers (Grace was about to commence while Hannah was in her second year) were informally introduced to each other by a staff member, with a view to providing assistance to Grace who was searching for accommodation. Email correspondence ensued but no formal meetings took place between them. Several months later, they actually met at one of the university events and realised how they were previously connected. Their face-to-face meeting helped renew an amiable connection and facilitated learning further about each other's topics, including their distinct research strengths. The conversation then led them to agreeing to share their knowledge and skills with each other—Grace taught Hannah the statistics program 'R' while Hannah demonstrated how to use NVivo software for qualitative research.

Scenario 2

It was a genuine struggle for Jon to identify the theoretical framework that suited his research. Even after broad and extensive reading that drew upon a few disciplines, for example, education, psychology, and philosophy, the task remained a huge challenge for him. Having raised this concern with his supervisor, it was agreed that he would converse informally with other scholars—doctoral researchers and staff members—in the department to inquire not about the theories per se that they previously used, but more about their journey of 'discovering' suitable theoretical framework(s) for their research. Such casual chats proved very productive in giving Jon nuggets of ideas and helpful 'cues' concerning practical strategies for 'looking for' and 'recognising' what might exist in the literature. More than that, these conversations unexpectedly led to an academic staff member lending Jon a seminal book on his research topic. Needless to say, it was gratefully received!

Scenario 3

A third scenario involves a group of eight doctoral researchers who ended up sharing the same office. The group's diverse composition was apparent, that is, a mixture of different year levels, research foci, supervisors, genders, and nationalities. Their proximity afforded generic opportunities for sharing and supporting each other. As an example, after attending a

subject-specific seminar, Carmi shared with her officemates her reflection on the core importance of research coherence. This inspired three third year doctoral researchers to offer advice based on their first-hand experience of how to strengthen coherence in both academic writing and research practice. In turn, the whole group informally benefited from this impromptu exchange of ideas, contributing to their mutual development as independent researchers.

WHAT MAKES UNOFFICIAL MECHANISMS FOR 'LEARNING' CRUCIAL AMONG DOCTORAL RESEARCHERS?

It can be argued that in each case, genuine learning did take place—whether through acquiring practical 'know-how' on research software use, well-tested strategies in finding a good match between the theory and the research study itself, or a broader insight into how the 'overall coherence' of research can be reinforced. At first glance, the type of 'learning' from each scenario appears to be purely serendipitous. After all, these examples of 'learning' occurred outwith what might be regarded as official or conventional doctoral learning contexts, for example, research method seminars, supervision meetings, and conference participation. Yet, we stress that informal interactions with fellow doctoral researchers, staff members and, at times, even with those from outside the doctoral community need neither be dismissed nor underestimated, as each could be a genuine channel for learning.

Linking to our two-pronged definition of 'learning' (Colman, 2015), whereas it recognises that 'knowledge gained by study' conveys the idea that learning occurs via official curricular activities, a wider definition of 'acquiring knowledge or skills' may refer to much broader and unofficial channels of learning. As shown in the three scenarios above, doctoral researchers can translate these informal interactions into mini-learning opportunities that may powerfully scaffold and form part of their wider learning experiences leading to meaningful and useful doctoral experiential learning. Such unintentional informal interactions then become not simply mechanisms for acquiring knowledge and skills, but equally, they greatly help in appreciating the strengths of their fellow scholars and, in turn, actively contribute to a vibrant scholarly community—where implicit support, whether academic, emotional, social, and/or psychological, is freely given and received. Together, informal interactions with co-doctoral

researchers and other scholars can help build a supportive research culture and mutually harness what their research learning community can offer. For example, this may include identifying and clarifying the threshold concepts in doctoral education (or the critical concepts that have been argued to be essential for learners to understand fully, enabling them to progress their learning) (Kiley, 2009, 2019; Kiley & Wisker, 2009), allaying some doubts and baseless fears and even revitalising their research confidence and sustaining their progress, en route to becoming independent researchers. The specific threshold concepts in doctoral studies contexts that Kiley (2009, 2019) has identified require a sound understanding of the argument/thesis, theory, framework, knowledge creation, analysis, and research paradigm.

Our shared views of the critical importance of harnessing these opportunities prompted us to revisit (and even expose) what we refer to as 'the hidden curriculum' that is typically characterised by 'the unintentionality and the often concealed learning processes that transpire' outwith the official or formal curriculum within the context of doctoral studies (Elliot et al., 2016, p. 740). We also include interactions that take place in such contexts as personal (with their family, close friends, fellow doctoral researchers), community (clubs, societies), even work-related (paid work, internships, or volunteering), as well as any form of meaningful interactions at the societal level, including those interactions that doctoral researchers seek for themselves.

How Are the Formal and the Hidden Curricula Interlinked in Doctoral Studies?

In the discussion of the formal (or the official) and the informal (or the hidden) components comprising the entire doctoral learning experience, the two curricular types can be likened to two sides of the same coin. Yet, there is a conceptual boundary that seemingly splits the two. Arguably, this boundary needs to be crossed for key stakeholders (e.g. doctoral researchers, supervisors, mentors, researcher developers, etc.) to appreciate the value of both curricula—formal and hidden—with a view to bridging them. Only by doing so can it open up a whole range of less investigated and more holistic experiences for doctoral researchers to use and maximise to their advantage.

Let us explain….

It is fair to suggest that all parties concerned, including doctoral researchers themselves, their supervisors and institutions, family members, and other staff members who play a role in the doctoral process, have a major shared objective. It is the ultimate acquisition of *the product*, that is, the doctoral qualification emanating from at least three years of hard work through rigorous study and intensive research that bestows upon doctoral researchers the right to earn the prestigious title thereafter to be attached permanently to their names.

Being the highest and most challenging journey in one's pursuit of academic qualifications, it is unsurprising that all available support from the institutions, supervisors, and other university staff members are concentrated on the various components. Two of these major components comprise *the process*—intended to lead incrementally to the major and final objective—*the product*. It makes perfect sense therefore that the utmost consideration is given to the formal curricular provision, for example, supervision meetings, research methods, seminars, conference participation, and others, as they are viewed to be the official mechanisms for facilitating *the process* that subsequently leads to *the product*.

So, what is the issue then? Although many programmes have an initial transition period including taught learning, the majority of the doctoral experience is not 'taught' in a classroom setting. In doctoral education regularly scheduled classroom learning is, by and large, no longer part of the learning routine. This is an indication that the processes of learning are, in fact, neither constrained to designated learning contexts nor restricted to conventional learning activities. Instead, learning may and arguably does manifest itself in much wider contexts, taking different forms. Nevertheless, they are still genuinely recognisable as forms of learning (exchange of skills via peer support, signposting to resources for self-directed study, casual chats to reinforce applying research coherence) as demonstrated in the featured doctoral learning scenarios.

In this respect, our argument is that in the same way that the formal 'process' comprising supervision meetings, research seminars, and conference participation is intended to guide doctoral researchers towards completion, that is, the 'product', there are parallel, often invisible, mechanisms (i.e. the hidden curriculum) that typically point to the informal 'process'. If given sufficient attention, their role is then better recognised—not to outshine but to complement, even reinforce, the formal curriculum provision and, in turn, bring together an enriched and strongly scaffolded doctoral learning experience.

What Framework Can Facilitate the Harnessing of the Hidden Curriculum?

With the formal curriculum, the doctoral structure and phases, planned learning mechanisms, length of study, rules and regulations for progression, and various support provisions within and beyond the university are by and large explicit. Supervisors often serve as the first port of call for all doctoral researchers. By contrast, the hidden curriculum lacks all of these—no structure or phases, no plan, no length of time involved. Needless to say, nothing is explicit. If discovered, the hidden curriculum can make a qualitative difference to doctoral researchers' experience—for both the 'process' and the final 'product'. Like an iceberg, however, the 'submerged' value of the hidden curriculum is very often overlooked, rather than appreciated.

If we were to accept the premise that harnessing the hidden curriculum is not only enriching and complementary to the formal curriculum, but also indispensable in experiencing a meaningful doctoral journey, it then raises an important point, that is, what are the considerations for understanding, recognising the value of, and eventually, harnessing the hidden curriculum? Interestingly, conversations over anything 'hidden' (e.g. hidden talent, hidden location, or hidden garden) tend to raise the enigmatic element that is associated with this term and, as a result, stir curiosity. Likewise, this can apply to the concept of the 'hidden curriculum' within the doctoral education setting. Curiosity is a good first step, but in an effort to deepen our understanding of the concept with a view to harnessing the hidden curriculum, we require a conceptual framework.

In crystallising the concept of the hiddenness embedded in the hidden curriculum, we employ a psychological concept. Borrowing from the principles popularised in the field of counselling psychology, with respect to the process and stages of counsellor development, we have chosen this particular concept for its inclusive applicability as well as simplicity. In turn, the concept can easily be applied by researcher developers, supervisors, and doctoral researchers themselves to reflect on and to frame examples of formal, informal, or hidden learning through these four stages of competence (Castle & Buckler, 2018, p. 54; Clarkson & Gilbert, 1988 cited in Donati & Watts, 2005, p. 478):

 (a) Unconscious incompetence
 (b) Conscious incompetence
 (c) Conscious competence
 (d) Unconscious competence

Unconscious Incompetence

Prior to discussing this concept, we (all authors) acknowledge the somewhat deficit model or ways of thinking conveyed through this concept but it nevertheless presents a powerful metaphor. It is also worth stressing that doctoral researchers commence their studies already equipped with a range of knowledge, skills, and distinct resources. We are not, in any way, calling new doctoral researchers 'incompetent'. Rather, this is simply a term to describe the various stages of learning as they progress in their doctoral learning journey. In the case of the 'unconscious incompetence' stage, it has been proposed that doctoral researchers are not only lacking in knowledge, skills, and practices for a particular task but are simultaneously unaware that they are deficient in these areas. As a case in point, although doctoral researchers expect the journey to be extremely challenging, they may not necessarily be cognisant of the extent or level of analytical, reflective, critical thinking and high level of reasoning that they are required to undertake in order to meet the required threshold concepts, leading to a healthy understanding of the doctoral standards, advanced understanding of the discipline, as well as effective research and writing practices. After all, as in other tasks, most learning comes from doing—or by actively participating in the process itself.

Conscious Incompetence

Concerning the 'conscious incompetence' stage, this is when there is a realisation by the learners about this doctoral requirement—the capacity to think in an analytical, reflective, and critical manner using a high level of reasoning. Yet, it is a stage where they may still lack the capability to embed these capacities into their work. Arguably, they refer to two different things, that is, having an awareness of these essential skills cannot simply be equated to possessing the required skills themselves. Potential absence of learner competence can be most felt during the initial stage when learners are still trying to learn the tricks of the trade, so to speak. This may also come in varying degrees for different learners. It is at this stage that several doctoral researchers may find themselves reasonably acknowledging their sound grasp or appreciation of the knowledge and skills that they need to possess and subsequently excel in, but at this stage, it is likely that they are still far from having the required proficiency. Although it is a stage that each doctoral researcher typically passes through,

it might also be the case that spending too much time in this phase can lead to having feelings that they are not developing over time or becoming conscious of having too many incompetences. Such feelings may then trigger imposter feelings, burnout, and dissatisfaction with the doctoral experience.

Conscious Competence

As learners steadily progress in their doctoral studies, this in turn enables them to acquire more knowledge, insights, skills, and understanding of the various facets of the doctorate, particularly the threshold concepts. When combined with constant scholarly reading, in-depth thinking, academic writing, conference presentations, and formal and informal conversations with tutors, mentors, supervisors, and peers, among others, their competences in relation to analytical, reflective, and critical thinking as well as use of a high level of reasoning, among others, tend to develop gradually until they reach a point where doctoral researchers have arguably become 'consciously competent'. We argue that becoming consciously competent is what researcher developers refer to when they talk about 'building confidence' among doctoral researchers. We stress that assisting doctoral researchers' developmental process equates to raising awareness of what they can do as well as what they cannot, as it is crucial in facilitating their progression from 'conscious incompetence' to 'conscious competence'.

Unconscious Competence

The final stage—described as 'unconscious competence'—often involves many years of continuous use of the desired skills leading to a type of proficiency that comes almost naturally and/or with much less effort. Again, using analytical and critical writing as an example, the person's level of competence possibly enables an expert-level writing skill to the point that the learner is also now capable of teaching others. Again, this may vary from one doctoral researcher to another. Whereas in some cases there may be a few exceptionally gifted doctoral researchers who become 'unconsciously competent' even prior to achieving their ultimate objective, that is, the *product*, there are also those for whom 'unconscious competence' may be a reality only after many years of working in academia.

When applied in the context of doctoral studies, these four stages of competence may serve as a useful guide to and for doctoral researchers as they reflect on and carry out an honest evaluation of their levels of competence, possibly starting with the critical learning goals required from every doctoral researcher (e.g. advanced disciplinary understanding, research competence, time management, project management, high level of reasoning, scholarly writing, workplace communication, etc.) discussed in relation to where they are in terms of the doctoral journey.

Initial evaluation of doctoral researchers' competence is intended to be diagnostic rather than judgemental of the person; the main aim is to empower the doctoral researcher by increasing their awareness of not only their individual strengths or 'competences' but also their personal weaknesses or 'incompetences'. For this reason, it is advisable that for it to be useful, a discussion of the learner's stages of competence requires carrying this out with either a supervisor or a trusted mentor who can help point out their areas of 'unconscious incompetence' in a constructive and supportive manner. We need to bear in mind that this potentially sensitive process is mainly intended to enable doctoral researchers' progression to the next three stages of competence.

WHAT ARE THE FINAL KEY MESSAGES?

In this chapter, we have discussed interconnected learning experience using various ideas surrounding doctoral education—from what learning entails through to specific examples of how doctoral researchers learn, as well as to the distinctions and connections between the formal and the hidden curricula and, finally, to a framework for understanding the stages of competence that are often inherently embedded in doctoral researchers' experience. Let us now connect these important points as illustrated in Fig. 1.1.

As the highest form of academic qualification, achieving a doctorate is like a barometer for one's intellectual strengths and competences that also brings with it its personal rewards. It may even open doors of opportunity either within academia or beyond. At the same time, anyone who decides to undertake a doctorate is bound to encounter both an extremely challenging and complex journey. It is not then a surprise that the doctoral journey leads to various forms of incidental outcomes, including imposter syndrome, attrition, delayed progression, and at times, any of these may become compounded and lead to physical exhaustion, chronic stress, psychological distress, or even mental health challenges.
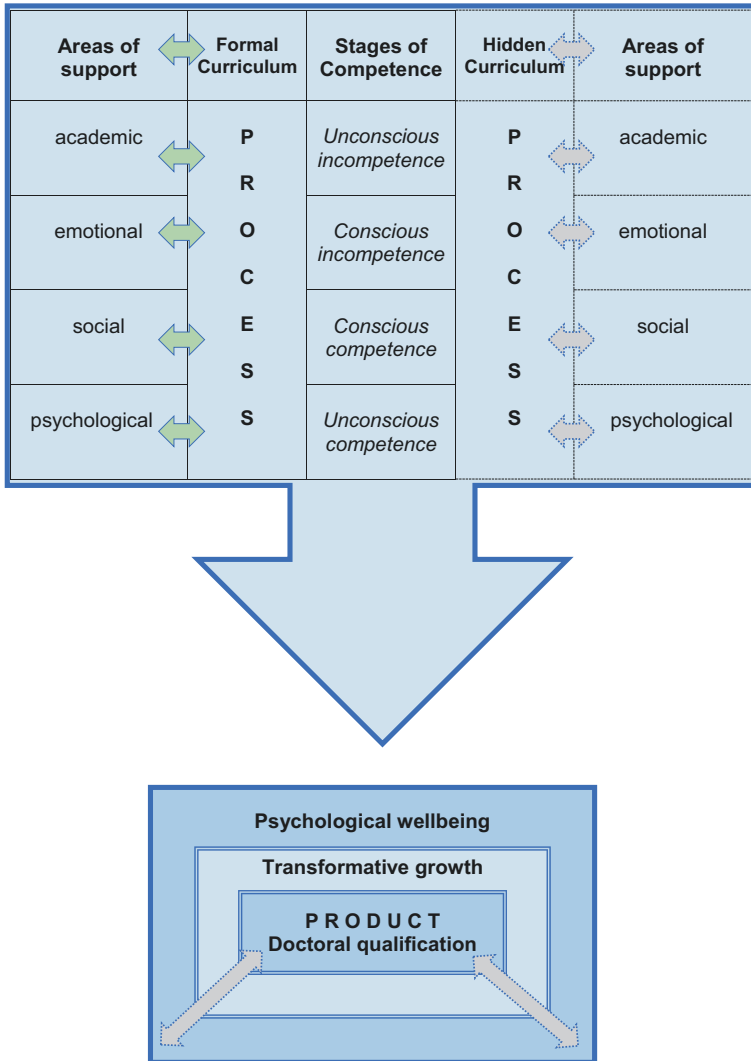
Fig. 1.1   A conceptual framework of the formal and the hidden curricula within doctoral education using the four stages of competence

In this regard, a precautionary measure when embarking on such an academically challenging endeavour requires harnessing all the support available to doctoral researchers—in order to strengthen their academic, emotional, social, and psychological wellbeing. In so doing, we argue the criticality of connecting the formal and the hidden curricula for the joint purpose of supporting the 'whole doctoral researcher' in their journey through recognition of their full individuality and appreciating that they have needs that are beyond doctoral-related knowledge and skills (Elliot & Kobayashi, 2019). This also stresses the idea that, essential as it may be, the doctoral journey has its own genre and, thus, necessitates *not just* academic support. Instead, an integration of academic, emotional, social, and psychological support is crucial as they settle into a 'foreign' learning culture and environment—endeavouring to meet new expectations while maintaining a healthy wellbeing fit for the challenges of doctoral education.

By drawing upon the four stages of competence, doctoral researchers (with the assistance of their supervisors and institutions) may prompt an honest evaluation of their readiness to undertake the doctoral challenge. The lack of certainty concerning the demands and requirements of a successful doctorate, when left unaddressed, tends to create, at times even exacerbate, their experience of anxiety, stress, and exhaustion. Using both the formal and the hidden curricula can then assist them to plan more strategically how they can equip themselves with the knowledge, skills, and even emotional, psychological, and other forms of support that can help sustain them in this rewarding but complex journey. Openness to both types of curricula during the doctoral journey also implies being open to all learning opportunities—large and small—or the necessity to respond appropriately, whether to learn, unlearn, re-learn, or even make new and unanticipated discoveries. Such openness is extended to whomever offers doctoral researchers useful learning.

An appreciation of the four stages of competence that doctoral researchers typically go through enables a sound understanding of the continuous development and refinement they gradually experience as part of the doctoral process. Understandably, it can at times be frustrating, especially at a point when they are not even certain of the competences that they require. Realising one's level of incompetence concerning what are regarded as mandatory skills is not helpful—not until they progress from being 'consciously incompetent' to 'consciously competent'. With their supervisors playing a vital role in supporting doctoral researchers' progression from one stage of competence to another, this could also explain the tension

that such a move, at times, inadvertently creates. Supervisory sessions may serve as channels for realising doctoral researchers' undeveloped areas of competence. Unsurprisingly, this could lead to them feeling threatened, which if not properly addressed might negatively affect the relationship between supervisee and supervisor.

It is also worth noting that in the same way that the formal curriculum is not always idyllic as we hear examples of 'bad' supervisors, subjectivity during assessment, or the inefficiency of a 'one-size-fits-all' provision, it is equally possible for doctoral researchers to receive unhelpful advice via the hidden curriculum. In the discourse pertaining to the hidden curriculum, it can, therefore, be argued that good discernment and judgement—plus a network of trusted colleagues and advisors who can provide verification and validation of ideas—remain vital as they harness either type of the curriculum.

In strategically bridging, leading to harnessing of both the formal and the hidden curricula, we propose that there needs to be an inherent, logical connection between the two curricula—with the formal curriculum in the foreground and the hidden curriculum in the background. Still, they can both be employed strategically to maximise doctoral education experience. This is not only for them to achieve their primary goal, that is, the product (or a doctoral qualification), but equally importantly, for them to attain transformative growth that is nurtured by a meaningfully enriched doctoral experience. We argue that the hidden curriculum can genuinely assist doctoral researchers as they navigate the formal curriculum, scaffolding their learning from the 'unconscious incompetence' through to the 'unconscious competence' stage. Invisibly embedded in this process is the complementary support and reinforcement that doctoral researchers receive along the way.

In summary, harnessing what the formal or official curriculum offers is good, but if doctoral researchers can make a conscious effort to harness what the hidden curriculum can also offer them, they can then take advantage of the wider 'doctoral learning ecology model' that arguably characterises doctoral study (this model is discussed in-depth in Chap. 7). By wider 'doctoral learning ecology', we refer to the non-academic elements and domains, which are also regarded to be vital parts of doctoral researchers' experience. In turn, they theoretically greatly increase their chances of achieving the final 'product' while also enhancing the positive components in the 'process' and therefore reinforcing its optimal impact. Any attempt to maximise the doctoral experience is likely to increase their

chances of making the journey itself more meaningful, enjoyable, and fulfilling, contributing to their own transformative growth—both on a personal and a professional level. Finally, it is worth stressing another benefit from the hidden curriculum, that is, the entwined academic, emotional, social, and psychological support that is essential to maintaining doctoral researchers' mental health and psychological wellbeing. The relaxation, enjoyment, and social company acquired outwith non-doctoral activities inherently address the pressure and sense of isolation that typically accompany doctoral research. Not only can the range of players in the doctoral researchers' personal and professional networks assist with the 'nurture' aspect, but they can also help avert potential wellbeing crises that are seemingly becoming more prevalent among doctoral researchers. We aim to 'expose' further the hidden curriculum in doctoral education in the next chapter.

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Exposing the Hidden Curriculum in the Context of Doctoral Education

Abstract Doctoral education carries with it its own rewards as well as a unique set of shared concerns arising from its challenging nature. Beyond the doctoral-specific challenges, there are added expectations (e.g. career, life post-PhD) that often greatly affect how the doctoral study experience is viewed. In this context, we take a closer look at prevailing concerns and challenges, which if left unaddressed can lead to delayed progression or attrition and/or possibly to physical exhaustion, psychological distress, or mental health challenges. Supervisory meetings and seminars formally underpin the development of research skills and subject expertise. Nevertheless, we need to appreciate the often overlooked value of the hidden curriculum, which can complement and reinforce the formal curriculum provision, leading to a more holistic doctoral experience.

What Is the Contemporary State of Play in Doctoral Education?

Doctoral education is arguably a fascinating and complex area of research, more so for the added intricacies as well as opportunities offered to those who decide to embark on this extraordinary intellectual endeavour. As the highest form of education, the journey to earning the special title as well as the title itself can bring their respective rewards, that is, the experiential knowledge acquired, the prestige that the title 'Dr' bestows as well as the professional networks and friendships created along the way (Bryan & Guccione, 2018).

For those who have the flair to pursue it, entwined knowledge acquisition and creation at the doctoral level can offer abundant opportunity to pursue meaningful and engaging dialogue with scholars and experts in one's chosen field of interest. After all, 'all research is a dialogue with other experts' (Wisker, Robinson, & Shacham, 2007, p. 304). Whether it is to advance one's disciplinary understanding, enhance research competence, demonstrate a high level of reasoning, or express oneself in scholarly writing, each of these activities requires a constant dialogue with other scholars, either face-to-face, by electronic medium, or simply by engaging and exchanging knowledge with them via academic reading and writing.

Such dialogue then progressively informs creation and communication of new ideas, new understanding of 'doctorateness', and insights leading to a genuine aspiration to contribute to knowledge. Taken together, a high level of motivation and perseverance are considered essential in doctoral success, that is, the importance of combined personal disposition, intellectual competence, distinct dexterity and healthy physical and psychological wellbeing are all considered valuable assets for such a challenging journey ahead.

What Are the Added Expectations Among Contemporary Doctoral Researchers?

Casual chats and observations with new and even with more established scholars suggest that apart from the widely recognised crucial learning goals for all doctoral researchers (advanced disciplinary understanding, research competence, time management, project management, high level of reasoning, scholarly writing, workplace communication, etc.), which implicitly bring their own pressures, there are extra challenges confronting

contemporary doctoral researchers. As pointed out by Schmidt and Hansson (2018), these additional challenges are not solely about the doctoral academic experience itself; many comprise concerns that are located outside the doctoral study period, including what awaits after doctoral studies are over, but nevertheless have a profound impact on how doctoral researchers spend their entire doctoral study period.

For example, doctoral researchers who are determined to pursue a career in academia tend to allocate a huge proportion of their time undertaking activities that are expected to give them the best chance to materialise their aspirations. Their career trajectory then becomes their anchor as they balance their time for their doctoral studies and their future agenda. In practice, this may mean aiming to meet two different paper deadlines—one for the draft chapter they promised to submit to their supervisors and a manuscript for publication. These two pieces of writing are likely to be interlinked and both lead to the same end, that is, production of knowledge. Yet, one may also argue that the second one is an example of unnecessary pressure that doctoral researchers subject themselves to, on top of all the pressure that they are already under. Interestingly, there is also a general perception that avoiding what is not strictly regarded as a doctoral study requirement is not an option either, particularly given ever-increasing competition among PhD holders, the more so for those who aspire to work in academia following doctoral studies completion, despite the full knowledge of the odds they face.

Likewise, there is extra pressure facing all doctoral researchers—even for those who do not aim to pursue academic careers. Whatever the career aimed for, progress towards completion requires gaining markers of esteem for any career (be it a project management qualification, research papers, public communication outputs, new experiences, e.g., events management). It also involves building a network of contacts in the right area of work (e.g. academics through conferences, non-academics through internships, shadowing, alumni mentoring). Another related factor is worth mentioning—doctoral researchers' financial situation (e.g. funding mode, fee-paying status, employment status, prior student debt, or family circumstances) is another important contextual factor as it is bound to affect decisions and considerations about how doctoral researchers will spend their time.

In the UK and Australian doctoral contexts, there is an observed push to increase employability outside academia to the extent that academic developers are prompted to start designing educational courses tailored to

leverage peer contact and harness the hidden curriculum. The move towards a portfolio of skills training to be submitted alongside the doctoral thesis or requiring doctoral researchers to obtain a Graduate Certificate in Researcher/Professional Development (or equivalent qualification) as part of the PhD is beginning to happen in some contexts. This is another example of how institutions' push for employability skill development can intensify the expectations among doctoral researchers. We will further link this contemporary emphasis on the employability dimension with our discussion in Chap. 4.

What Are the Implications of Differing Models in Doctoral Education?

And so, a comprehensive look at what the business of doctoral education is about, with a view to examining what the formal curriculum offers, and before examining what might lie at the periphery of the formal curriculum, could be a great place to start. Several auxiliary questions worth raising include: How do we cross the conceptual boundary between the formal and the hidden curricula? What can be gained from doing so? How can a blended approach be leveraged by individual researchers? Ultimately, what difference does it make to the doctoral education experience?

As we reflect on these questions, we need to consider (regional) differences among various existing models of doctoral education; in this variability, we find unique strengths and weaknesses embedded in each model. Whereas a typical PhD in the US means at least two years' worth of formal course provision, aimed to support research skill development and academic writing prior to undertaking the research component itself, that is not the model adopted in other major English-speaking universities.

> The PhD experience in the UK (also in Europe, Australia and New Zealand) is generally characterised by a professional and personal development process comprising an independent learning route in most cases without prescribed formal curricula. PhD candidates are instead given two or three supervisors who provide intellectual guidance, instructional and some pastoral support. (Elliot, Baumfield, & Reid, 2016, pp. 1180–1181)

Notably, in some Scandinavian models (e.g. Denmark), it is quite common for the doctoral researcher to be regarded as an employee, be treated as a colleague, and be part of a research team. Although this is not strictly

part of the formal doctoral curriculum provision, this model arguably offers layers of advantages for doctoral researchers who operate in this model. On the academic side, there are greater opportunities for working with other researchers in the same area leading to intellectual discussions, conference presentations, and collaborative writing for publication. Further, to work as a member of a research team entails a few practical benefits too, for example, a gradual induction into the research and academic culture and emotional and social support that may lessen the sense of isolation that is predominantly experienced by those who pursue a doctorate (Cotterall, 2013). On top of that, these doctoral researchers regularly receive a salary, which means that the financial aspect of their studies is taken care of, at least during the period in question.

Highlighting both academic and non-academic benefits is crucial because the Scandinavian model of doctoral education broadly addresses a number of academic needs and, equally, a few non-academic needs, too. For example, a track record of publication with one's team (duly supported by PhD by publication schemes) contributes to building the doctoral researchers' profile, which helps stand them in good stead if they were to pursue a career in academia. Their counterparts in the UK, on the other hand, are not always afforded the same advantage that arises from this Scandinavian model. Instead, this means that working and publishing with other scholars, and all the benefits that come from it, demand extra effort, and in turn, it could reasonably tilt the balance between their time for the formal and the hidden curricula. Nevertheless, there are exceptional cases here. In the Science, Technology, Engineering, and Mathematics (STEM) disciplines, for instance, it is very common for doctoral researchers to come to 'work' every day. They work full days in teams or in research groups and they also often work on different facets of the same issue. More than that, irrespective of the funding source for STEM doctoral researchers, the general expectations for engaging with the group or department are the same.

How Can the Formal and Hidden Curricula Address the Learning Goals in Doctoral Education?

Starting with the perceived learning goals in doctoral studies, that is, advanced disciplinary understanding, research competence, time management, project management, high level of reasoning, scholarly writing, workplace communication, and so on, it is easy to understand why almost

all of them are expected to be developed via formal courses, seminars, and workshops and reinforced via doctoral researchers' discussion with their respective supervisors and other scholars. After all, as discussed in Chap. 1, they directly support the materialisation of the ultimate objective or 'product' in pursuit of doctoral education, that is, the doctoral qualification.

Similarly, as per the scenarios presented in the previous chapter, doctoral researchers on a daily basis easily engage in casual or targeted conversations with other scholars or even non-scholars leading to impromptu discussions that can prove to be significant and beneficial to the researcher's growth and development as an independent researcher. As Wisker et al. (2007) have reminded us, a meaningful dialogue is central to undertaking research, and this is arguably irrespective of the form it takes. Perhaps, it is because dialogue directly satisfies the main premises of doctoral education, that is, both acquiring and creating knowledge in the process. An active dialogue between two (or more) individuals can be likened to an open door where exchange of ideas and insights flow freely enabling mutual benefit to all participants concerned.

Focusing on the most common concerns identified in the literature to be prevalent among doctoral researchers, let us examine some exemplars from both formal and hidden curricula (further in-depth discussion on this topic will follow in Chaps. 4, 5, and 6). In discussing how each curriculum might be able to address such concerns, we also bear in mind that different aspects of the curriculum tend to have overlapping purposes and, by extension, address multiple concerns facing doctoral researchers.

How Are Formal and Hidden Curricula Similar and Different?

Table 2.1 aims to make several distinctions in order to bring clarity to how the two curricula are characterised, how they are accessed, who the key and supporting stakeholders are, how they are realised, and what they are intended for. With selected examples, we aim to elucidate further the concept of the hidden curriculum by addressing some specific questions, including: 'What are the examples of the hidden curriculum?'; 'Who is behind this curriculum?'; or even, 'Why do we need to talk about this curriculum?'

Table 2.1 Common doctoral challenges vs formal and hidden curricula provision

Formal curriculum provision	Common challenges among doctoral researchers [a]	Hidden curriculum provision
• Induction day • PGR[b] code of practice • PGR handbook for researchers and supervisors • Supervisory meetings and research-focused discussions • PGR courses, seminars, and workshops organised by the university • PGR courses, seminars, and workshops from outside the university • Summer school participation • Conference participation • University scheme/initiative participation • Tailored academic writing support • Professional academic and career advice • Formal mentoring initiatives	• *Understanding the doctoral process (what the notion of 'doctorateness' entails)* • *Transition from unconscious incompetence through to unconscious competence* • *Supervisory relationship* • *Imposter syndrome—feeling like an imposter or a fraud despite clear evidence to the contrary* • *Doctoral journeys as channels for academic formation, identity development, and personal growth* • *Multiple pressure that the doctorate entails*	• Learning conversations with other scholars, for example, PGRs, PGR administrators, postdocs, and other academics • PGR-led learning spaces, for example, roundtables, societies, networks, similar initiatives • Informal writing groups • Innovative ways of learning, for example, reading groups • Friendly debates with family, friends, and acquaintances • PGR peer support network • Finding 'a third space' or a sense of community • Lunchtime walks • Community gardening • Exercise or sports participation • Bake-off social competition • Social and cultural events • PGR-initiated activities supported by the department • Volunteering activities

Further information on the different concepts presented in this table will be available on the companion online resources to this book

[a]This is not an exhaustive list but merely illustrative examples to clarify the points raised. Given the multiple dimensions of the hidden curriculum, selected examples in Table 2.1 focus only on activities initiated by doctoral researchers themselves or activities in which they tend to be actively involved

[b]PGR: Postgraduate Researcher

Academic- or Institution-Led vs Doctoral Researcher-Led

Within the formal curriculum, examples provided here focus on what the institutions generally offer to their doctoral researchers. All formal courses and activities, from commencement to completion, tend to be planned in advance to help ensure that the academic-related needs of doctoral researchers are met. Likewise, doctoral researchers are pre-assigned their supervisory team with whom they will work closely throughout the entire doctoral process. Predictably, they are all customarily academic- or institution-led.

By contrast, ideas underpinning the hidden curriculum activities in Table 2.1 often originate with the doctoral researchers themselves, as they are motivated by their own needs, curiosity, and interests leading to self-directed action. Doctoral researchers play a 'crucial role'—firstly, in harnessing and subsequently in maximising what is available from the hidden curriculum in order to thrive in this environment. This suggests that the onus is on every single doctoral researcher to determine the extent to which they can benefit from the hidden curriculum, for example, from simple and casual chats that contribute to enhanced understanding of a concept to organising PGR-led learning spaces. Even initiating a casual chat with a PGR administrator or another postdoc is considered a proactive action that is driven by a desire to seek an answer to a question or a resolution to a problem.

Likewise, those who pursue 'a third space'—a form of recreation that is neither family-, work-, or educational-orientated—are enthused by their own strong interest or passion. A third space could mean pursuit of a hobby, something novel, or of genuine interest to the doctoral researcher—including activities that are not necessarily within the confines of academic institutions (Elliot, Baumfield, Reid, & Makara, 2016). In whatever capacity doctoral researchers utilise the hidden curriculum, it can be argued that it normally originates as a response to their core interests or needs. On some occasions, activities are supported, for example, via funding allocations from a department, but similarly, the initial spark and continuing success of the initiative are very much dependent upon the enthusiasm sustained by the doctoral researchers themselves. Examples often include establishing activities prompted by a shared interest, for example, PGR societies, networks, and informal groups. At the University of Edinburgh, the latter led to a doctoral-led initiative called PhD Roundtable; with some financial support from the department, this initiative enabled a

moderator to organise structured but friendly debate sessions for a small group of doctoral researchers (Shan, 2019).

Academic Staff and Non-Academic Staff as Mediators of the Curriculum

The formal curriculum is likely to take place on the institution's premises and be delivered by those who have broad knowledge of the doctoral process, subject area, research methods, supervisory practices, and academic writing among others. Delivery is guided by the institution-approved learning objectives and intended outcomes. The formal curriculum is often dispensed by staff members within the doctoral education domain. Interestingly, as discussed in great detail in Chap. 4, the formal curriculum (led by academic or non-academic staff members) can equally and powerfully serve as a platform not only for harnessing the hidden curriculum but in strategically bridging it with the formal curriculum.

It is worth stressing that although mediators or conveyors of the hidden curriculum are conventionally far from being 'academic staff', they nevertheless prove to be instrumental in moulding a particular doctoral-related skill (e.g. clarity and/or strengths of one's arguments) or meeting a specific emotional, social, or psychological need. A concrete example is the case of a doctoral researcher for whom volunteering to work at a charity bookshop where regular social interactions occur was a way of alleviating her loneliness arising from the isolated doctoral research experience. Interestingly, her action also yielded an unintended consequence, that is, sustaining her psychological wellbeing (see Elliot, Baumfield, Reid, & Makara, 2016). On the other hand, informal writing groups where doctoral researchers and supervisors discuss and exchange ideas, co-review manuscripts, and/or critique unfinished papers as well as organise social activities together potentially bring benefits at various levels—academic, emotional, social, and psychological (see Cai et al., 2019). As discussed earlier, given that other doctoral researchers' needs necessitate *not just* academic support (Elliot & Kobayashi, 2019), it stands to reason that in addressing such needs, we can then expect the resolution to come from non-academic individuals.

Instrumental Roles and By-Products of Formal and Hidden Curricula

Our recent discussion of the originators and the 'promoters' behind the two curricula leads to the notion of ascertaining their value—What are they intended to do? Can every doctoral researcher harness both of these curricula as part of the wider doctoral ecology? Finally, is it worth doctoral researchers' precious time and effort?

With reference to Fig. 1.1 in Chap. 1, we surmise that the primary focus of the formal curriculum is to address the academic or scholarship needs among doctoral researchers. In turn, it can be argued that by simply relying on the intended scope of the formal curriculum, the relationships formed with other scholars and supervisors may imply a restricted impact on the researchers' emotional, social, and psychological domains. We do not infer that this is the fault of the formal curriculum at all, but we assert that such domains are rarely addressed, let alone raised during supervisory meetings, seminars, or workshops. Doctoral researchers' non-academic needs are not likely to be given space in the formal curriculum. Yet, these non-academic needs (e.g. wellbeing) also require attention and resolution. With the unstructured nature and unlimited time dimension of the hidden curriculum, however, this unequivocally presents an increased opportunity for supporting doctoral researchers' academic, emotional, social, and psychological domains during the doctoral journey.

Let us take, for example, the humble 'lunchtime walks'. Not only do walks, as a form of exercise often in large green spaces like parks, naturally promote physical, social, and by extension, psychological wellbeing, they are also a great way to get to know other scholars. Social interactions can open up further opportunities for 'dialogue' or socialisation, which is likely to generate a tacit form of learning. A new acquaintance may not necessarily lead to friendship, but good and healthy relationships with other people do contribute to one's emotional stability and consequently to one's overall psychological wellbeing.

Taken together, the differences between formal and hidden curricula imply variation in terms of foci, modes of access and delivery, and how they can enrich the 'process' to make the journey towards achieving the 'product' a lot more engaging, fun, supportive, and altogether meaningful. Arguably, it is the engaging, fun, supportive, and meaningful elements in the doctoral process (that the hidden curriculum can generate more easily) that are likely to support doctoral researchers in achieving the

doctoral qualification. Moreover, they tend to contribute to researchers' transformative growth and, equally importantly, in maintaining a healthy psychological wellbeing throughout the long and intense doctoral journey.

What Are the Final Key Messages?

Having considered the current state of doctoral education, comparing and contrasting both formal and hidden curricula support the premise that although the latter often lies at the periphery of the formal structure, its impact should not be underestimated. It is linked to the idea of recognising that 'human learning is situated within a much broader spectrum of learning, encompassing both formal and informal settings, where the latter enriches and complements the former' (Elliot, Baumfield, Reid, & Makara, 2016, p. 738). This final message takes us back to the aim of this chapter, that is, to expose the hidden curriculum, as it is critical for doctoral researchers to 'see the unseen'. By doing so, they can become better equipped to make informed decisions as they navigate doctoral education and avail themselves of what both formal and hidden curricula can offer. All this is geared towards seeking meaningful experiences during the journey towards successful doctoral completion and attaining transformative growth in the process while sustaining psychological health and wellbeing.

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Recognising the Hidden Curriculum Within International Doctoral Education

Abstract International learners' background, learning orientation, language, practices, and values can inform experience of studying abroad, making it more exciting as well as challenging. These experiences can be intensified by such factors as experiencing a dual sense of loneliness, enormous pressure to succeed, or physical distance from important social connections. Unsurprisingly, this group is seemingly more vulnerable to developing poor mental health. By contrast, multiple learning opportunities and support, albeit at times hidden, are also distinctively available to all educational sojourners. These learning opportunities enable distinct engagement that fosters development of scholarly knowledge and research skills—although not via the conventional route, that is, the formal curriculum. This chapter focuses on how educational sojourners can specifically maximise their experience and even turn missed opportunities into advantages.

Is There a Warrant for Focusing on International Doctoral Researchers?

Doctoral education studies acknowledge the diversity within its group of doctoral researchers—full- and part-time, first generation, distance learners, home and international doctoral researchers. Unsurprisingly, such diverse backgrounds combined with the distinct circumstances facing each cohort are influential in how they perceive and experience doctoral education. Such factors not only inform how they learn but also influence the extent of their participation in various activities. This chapter, therefore, considers these distinctive elements in focusing the discussion on what the hidden curriculum means for this cohort.

Since this chapter has international doctoral education at its core, we then would like to elaborate on our reasons for paying specific attention to this cohort. There is a twofold reason for this. Firstly, it is due to a special set of circumstances surrounding the 'educational sojourn' or the temporary nature of the educational experience in a foreign setting experienced by those who decide to undertake their doctoral education in another country. We argue here and elsewhere that this 'educational sojourn' experience has the tendency to lead to *novel* ways of understanding a different angle to the hidden curriculum. Secondly, it is acknowledged that this cohort of doctoral researchers is likely to experience multiple and complex issues during their doctoral studies, so much so that they are viewed as predisposed to experiencing poor mental health, as highlighted in a recent authoritative report (Metcalfe, Wilson, & Levecque, 2018). Ironically, one of these issues might easily concern their reluctance to investigate the hidden curriculum per se. What this means is that while accepting the importance and potential benefits of the hidden curriculum, there are also constraints imposed by their temporary stay, that is, visa and financial implications (Metcalfe et al., 2018). Some international doctoral researchers may then perceive their limited time as a barrier when using it for what might be considered 'non-academic' purposes. Such a mindset may lead some to misperceive that the explicit, structured, and formal type of curriculum is all international doctoral researchers require during their doctoral journey. As a result, some individuals from this particular group may regard activities outside the formal curriculum as 'irrelevant'. In this chapter, we clarify what the hidden curriculum is for international doctoral researchers and argue that there is a warrant for making a strong case for

understanding what could easily be a 'neglected' but 'crucial' resource for them.

Let us give you some conceptual background as we explore further how the 'educational sojourn' can powerfully affect international doctoral researchers' experience.

How Can the 'Educational Sojourn' Create a Novel Experience?

While this chapter is also set within doctoral education, the lessons are deemed more applicable to all international learners, that is, those who study outside their home country for a temporary period (e.g. one, three, five years). Our intention to clarify the idea behind the 'educational sojourn' experience is informed by Urie Bronfenbrenner's bio-ecological system's theory. Like other theories in developmental psychology, this theory originally aimed to offer a conceptual explanation for children's growth and development. With the wide scope offered by this theory (i.e. from the cradle to the grave), extending Bronfenbrenner's theory has enabled us to offer a psychological explanation for the complex experience of those who decided to leave their home country and study abroad for their doctoral education (see Elliot, Baumfield, & Reid, 2016; Elliot, Baumfield, Reid, & Makara, 2016; Elliot, Reid, & Baumfield, 2016).

According to Bronfenbrenner (1979, 1994, 2005), a person's development is governed by layered systems, that is, microsystem, through to mesosystem, exosystem, macrosystem, and chronosystem comprising the entire ecological system (from internal to external system). Whereas a child's/individual's direct interactions with one's family, school, and peers are mainly situated within the microsystem and the mesosystem (a system that is concerned with the quality of the interactions among family, school, and peers), other systems also facilitate other forms of social interactions generously offering various forms of learning, growth, and development at the community (exosystem) and societal level (macrosystem) while taking into account any critical milestones occurring during the life course (chronosystem). According to this theory, although external societal influences may impact the community, the school/institution, the family, and the individual, the influences are seemingly bi-directional. This implies that the person at the very core of the layered system can also strongly

influence the other systems (Bronfenbrenner, 2005). As we explained elsewhere,

> Each student on a sojourn constitutes their own multilevel ecological system—their accepted norm prior to contact with a new ecological system. The sojourn instigates disruption at all levels, as the sojourner becomes part of another ecological system, severely affecting the person's principal sources of support, for example, previously sustained relationships with significant others (microsystem, mesosystem). Likewise, the person's sense of identity achieved through relations with the macrosystem (e.g. national and cultural values, religious and political affiliation) and displayed through social behaviour (Bronfenbrenner 1994) is somewhat disturbed. The sojourn itself is a decontextualizing tool, facilitating reflection beyond what used to be the sojourners' norm. (Elliot, Reid, & Baumfield, 2016, pp. 2214–2215)

Prior to the 'educational sojourn', there was only one ecological system. It is the 'educational sojourn' itself that then leads to the co-existence of two ecological systems for international doctoral researchers. Why is this important to understand, you may ask? Interestingly, despite now being in the host country, the powerful influences from the original ecological system remain. As a result, they can at times cause tension to international doctoral researchers' experience. Sometimes, the two ecological systems may even clash and lead to feelings of confusion, fear, or discomfort.

On a positive note, the same 'sojourn' also does offer novel and positively unusual experiences that can offer meaningful, unconventional, but nevertheless 'authentic' learning experiences. Such experiences come from their simultaneous experience of two ecological systems following the 'educational sojourn'. We explain elsewhere that these unique and novel experiences for these international doctoral researchers tend to lurk within the hidden curriculum. (For further explanation of Bronfenbrenner's extended framework, see Elliot, Baumfield, & Reid, 2016; Elliot, Baumfield, Reid, & Makara, 2016.)

What Can the Hidden Curriculum Arising from the Co-Existing Ecological Systems Offer?

If we agree that meaningful dialogue via interaction and learning are synonymous (see Chap. 2), the idea behind the 'educational sojourn' allows us to appreciate how exposure to not one but two ecological systems can greatly increase available opportunities for learning. Learning can occur at every layer in either of the two ecological systems—home or host. Unsurprisingly, opportunities for cross-over learning also abound. For example, meaningful discussions with the locals in the community (e.g. at the pub, in the church, at the local salon) on expressions such as 'hospitality to guests' or characteristics of an 'excellent student' can lead to a clearer understanding of how some ideas are understood and practised in the host country. Such discussion often triggers more questions, reflection, or further discussion on how an idea (e.g. 'hospitality to guests') is conceptualised in the host country, leading to a deeper understanding of its meaning and practical use in the home country. This comparison and contrast of ideas may also lead to different reactions, for example, amusement, surprise, disappointment, and anxiety, which can prompt further learning, re-learning, or even unlearning in the new ecological system.

Another example may involve a conversation with a local person (e.g. a next-door neighbour) on the perception of 'excellent student' (twinned with 'ideal teaching'). This can easily lead to useful insights regarding the host country's practices, for example, supervisors' and lecturers' professional behaviour and attitudes, supervisory (and teaching) styles, teaching principles behind class activities, and formative and summative assessments. Insights into how supervision normally operates in the new context can also offer useful clues around expectations from doctoral researchers. Such insights are more crucial in gaining a deeper understanding of accepted practices in the host country, especially if they are regarded as 'standards', and yet, this very issue is not openly discussed in classes or meetings.

When compared with the formal curriculum, these informal but meaningful interactions may easily fall within the scope of the hidden curriculum. It is not to say, however, that the lessons gained do not contribute to how international doctoral researchers may experience the formal curriculum. For any doctoral researcher who has had little or no experience of a particular type of learning orientation, informal insights are helpful in

understanding their supervisors' approach to supervision, for example, formative feedback that is aimed to challenge and scaffold learners' thinking to help broaden knowledge, understanding, and skills rather than merely providing advice concerning the next steps of the process. Yet, the means of acquiring this learning can take place outside the formal mechanisms within doctoral education. Naturally, learning what formative feedback is for can be gained via the formal curriculum, too. If that were the case, then any further learning via casual and relaxed discussion can be seen as extra reinforcement.

Taken together, what we aim to explain is that there are tacit and interlinked ways of learning within the informal, non-academic, and/or societal contexts that contribute to the overall doctoral learning experience. Such informal learning is arguably enriching among educational sojourners, particularly if there is a large difference between academic systems in their home and host countries. Interestingly, while a journey to a new ecological system may pose challenges, it also offers multiple opportunities for new learning. Various 'lessons' then take place in any system, for example, with the significant people in the new microsystem, interactions with the 'local' community, or general participation in larger societal activities.

How Can International Doctoral Researchers Harness the Hidden Curriculum?

Unlike the explicit structure and nature of the formal curriculum, the often 'unintentional' and 'concealed' learning experience that makes learning 'hidden' in the hidden curriculum is often a challenge. A question likely to be asked by international doctoral researchers is—'Where do I start?'—a valid question not having a single definitive answer. Instead, it can be answered in multiple ways—some of which we are going to explore in this section.

Prior to that, we briefly go back to an element in Bronfenbrenner's bioecological system's framework. The role of the 'bio' component, which stresses the role of the person as an active agent in the process of one's growth and development, is behind the decision to add the term 'bio' to what was only previously referred to as an 'ecological system'. This is an important point to highlight because in encouraging international doctoral researchers to reap the benefits of the hidden curriculum, we believe

that their active role is paramount, and equally, it is often the starting point. Although the hidden curriculum is theoretically all around international doctoral researchers, its nature means that finding it requires not just international doctoral researchers having the intention but also the determination to do so. But first, they need to be convinced of the value of the hidden curriculum and its concrete benefits. It is only then that we can strengthen international doctoral researchers' motivation to search for it, subsequently leading to harnessing what the hidden curriculum can possibly offer (Elliot, Baumfield, & Reid, 2016; Elliot, Reid, & Baumfield, 2016).

Drawing from our earlier research on how international doctoral researchers proactively searched for the hidden curriculum, we observe some shared considerations as they pursue their own experience of the hidden curriculum. As we highlighted earlier, although the educational sojourn may inherently cause disruption, it is arguably likewise imbued with various mechanisms for addressing such disruption, assisting sojourners' transition to the new ecological system, and enabling them to enrich their entire educational experience. In the doctoral context, we argue that the hidden curriculum creates extra platforms for learning among the international cohort so that they can make the most out of their doctoral studies eventually leading to successful completion.

The REPAIRS Model

The hidden curriculum first needs to be found! To do so, we advocate a conceptual model, which we refer to as 'REPAIRS'—suggesting that it is instrumental in *repairing* the disruption from the created co-existence of both home and host ecological systems.

Receptivity

Being presented at once with unfamiliar people, language, weather, or ideas can be overwhelming. Yet, having an 'open' disposition—the courage to step out of one's comfort zone by not dismissing new ideas (because they are 'different' or 'untried')—is suggested to be a key step to experiencing what the hidden curriculum can bring.

Embrace

Even with openness to new experiences, not everything from the new ecological system will be to one's taste or lifestyle. There is, therefore, no pressure to accommodate everything, especially since it is simply not possible to do so. Instead, there is space for exercising wisdom as to what one can embrace.

Passion

In deciding what to pursue, international doctoral researchers in our study followed their passion—what they are genuinely interested in. Consequently, doing so is not only likely to stimulate genuine enjoyment but also tends to create an upward spiral of positive feelings and experiences (Fredrickson, 2003).

Active Engagement

Passion and enjoyment from one's participation in the hidden curriculum are bound to promote active engagement. Retaining one's childlike curiosity can encourage 'ongoing learning' while also sustaining 'enjoyment' via engagement.

Innovation

Active participation in innovative or creative hidden curriculum tasks and activities satisfies one's passion, engagement, and curiosity. In finding such tasks and activities, matching them with how the learners' strengths can be applied or even stretched is more advantageous for all concerned.

Routine

As in any type of learning, regularity is important. Active engagement and regular participation in a selected activity facilitate the creation of a secure personal network—a strong source of support. Such a network is indispensable, during the entire sojourn when international doctoral researchers are away from their major sources of support and, especially, during what might turn out to be a difficult period in a foreign setting.

Self-Reflection

Finally, routine rather than one-off participation is more likely to lead to personal self-reflection, which may also prompt such critical questions:

(a) How do lessons from the hidden curriculum impact my overall doctoral journey?
(b) Are there non-doctoral lessons that are directly transferable to my doctoral experience?
(c) Am I tapping into any elements of the hidden curriculum that can possibly assist my doctoral experience, transformation, or maintenance of my psychological wellbeing?
(d) Are there any missed opportunities where a redirection of the hidden curriculum focus would be more beneficial?
(e) Are there instances where I accidentally stymie what the hidden curriculum offers me?

What Might Be Examples of Opportunities and Pitfalls When International Doctoral Researchers Draw Upon the Lessons of the Hidden Curriculum?

Our previous research, which investigated the overall experience of international doctoral researchers, highlighted three issues among a small group of participants (Elliot, Baumfield, & Reid, 2016). They include (a) a dual sense of loneliness, (b) linguistic challenges and differing academic traditions, and (c) challenges related to social connections and relationships. As for the first one, it starts from the idea that the doctoral study is regarded a lonely process by default. On top of that, international doctoral researchers undertake this 'lonely' study while being away from their family, friends, and significant others—even from everything they are familiar with including food, spoken language, weather, and environment. It has been suggested that this then creates an extra layer of loneliness for them. Secondly, with the prevalence of academic-related challenges among international doctoral researchers, the seriousness of this concern often depends on the disparity between the original and the new ecological systems (i.e. the home and the host country's academic cultures and learning

orientations, general traditions, and practices). The third common challenge can be explained within the context of separation from significant others back home and forming new relationships in the host country to sustain needs for emotional, social, and psychological support. In response to these challenges, we will illustrate an example from our research, which can help clarify how the hidden curriculum 'REPAIRS' the disruption triggered by the sojourn and enables international doctoral researchers to thrive in their new environment.

One of the research participants, whom we referred to as Oscar, related his experience as a doctoral researcher in neuroscience. Oscar stressed how visiting the local pub on a daily basis was integral to his experience—primarily as his way of relaxing after a day's work. With poor confidence because of his lack of English fluency, he admitted initially being shy. Through his visits, Oscar managed to get to know the locals (*not* university staff or students) and unpredictably developed a strong emotional bond with them, to the extent that one of them became a 'British father'—on whom he relied during times of need. Their regular casual chats also proved to be a lot more than just conversation. It is easy to see how these chats were instrumental in assisting Oscar to understand British idioms and jokes, which increased his confidence and encouraged him to express his ideas better. These informal group discussions then served as platforms for articulating his voice, even challenging other people's views and ideas—all in a non-threatening and friendly environment. Although Oscar was not intentionally focusing on any potential 'academic' benefits when engaging in these friendly conversations, they also arguably facilitated lessons that have clear academic benefits for Oscar. These, in turn, led to learning transferable lessons including capacity to express ideas, articulate one's voice, respond to opposing ideas, follow the emerging arguments, defend one's stance on a particular subject, critique other people's points of view, and most of all, enjoy participation in discourse—intellectual or otherwise—although on the surface, he may think, 'I'm only here for the beer!'

As an international doctoral researcher, the way in which Oscar harnessed the hidden curriculum served a number of different purposes that helped address three common issues that this cohort typically faces—doctoral loneliness, linguistic challenges, and social connections. Linking Oscar's experience to the 'REPAIRS' model, his decision to

visit the pub came exclusively from his *receptivity* to relax and mingle with the locals. Despite intense shyness and his major language-related challenge, he *embraced* the initial awkwardness and plucked up his courage to speak to the locals over a glass of beer. Going to the pub for a drink is not categorically a hobby, but it is an activity that Oscar was *passionate* about, which led to both *active* and *regular engagement* (or *routine*). As it is personal to Oscar, we can only surmise that there were nuggets in those conversations that he found *innovative* and creative, stimulating his curiosity throughout his whole doctoral period. As Oscar attested, his regular visits to the local pub became an integral element in his journey. So much so that he continued these special relationships that he formed with the locals long after he completed his doctoral journey—visiting them regularly at the weekends even after securing a postdoc position in another city.

This story, however, could have also easily led to a different narrative and ended up negatively. It might not even have started if Oscar (or any international doctoral researcher in our study) went against the idea of receptivity or embracing unfamiliar and untried ideas in a new environment. Bearing in mind that participation in a drinking session is not something that everyone is comfortable with, due to personal, health, or religious reasons, they need to exercise wisdom about what they can practise. On the other hand, not being open *at all* to pursuing the hidden curriculum could also easily result in missed opportunities and forfeited benefits.

What Are the Final Key Messages?

As we have taken into account how the hidden curriculum arises in educational sojourns, we strongly support the notion that international doctoral researchers (or other groups of international students) are surrounded by endless opportunities and possibilities. As a direct result of the educational sojourn, the layered systems in the new ecological system can generously offer various opportunities for addressing the existing gaps—whether cultural, social, or academic related. In other words, while gaps have been created by the sojourn, the opportunities offered by the hidden curriculum also (somewhat strategically) help address these gaps first and foremost, but also promote a flourishing doctoral experience that enables a

more meaningful and highly positive, transformative experience while sustaining their need to look after their psychological wellbeing.

As we stressed in Chap. 2, harnessing the hidden curriculum necessitates searching for it. Restressing Martin's (1994, p. 158) argument, 'a hidden curriculum is not something one just finds; one must go hunting for it'. This chapter explains the rationale and benefits of proactively hunting for the hidden curriculum—not simply because it exists, but because finding and harnessing it can make a qualitative difference to international doctoral researchers' educational, social, and psychological life experience—with great potential to contributing to their ultimate goal of achieving a doctoral qualification. By pondering on the suggested REPAIRS model for an appropriate level of the ecological system, international doctoral researchers can equip themselves with practical and useful resources for a hugely challenging endeavour. But first, they need to remember that it all starts with awareness of the hidden curriculum and a genuinely receptive attitude to embrace it.

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The Hidden Facets and Players in the Formal and Informal Doctoral Curriculum

CHAPTER 4

Navigating the Hidden Curriculum: A Person-Centred Approach to Developing Doctoral Researchers

Abstract Responsibility for doctoral researcher development is a shared endeavour across different roles and functions among higher education (HE) staff. Avoiding conflicting messages or competition for students' time requires these players (supervisors, researcher developers, convenors, administrators) to work in tandem towards coherent and aligned goals. While being responsible for designing and delivering taught content on academic and employability skills, researcher developers play another important role since many doctoral researchers regard workshops as shared spaces for meeting, comparing stories, making sense of their experiences, and/or receiving non-judgemental support from other scholars. Such spaces enable a hidden curriculum of listening, coaching, offering support, and guidance. This practice led to recent shifts in researcher developers' roles—with mentoring, coaching, dialogic, and relational approaches taking centre stage and taking over 'skills training'.

Keywords Doctoral researcher development • Navigating the hidden curriculum • Shared spaces • Researcher developers' roles • Relational approaches

> *The course was packed with exercises that forced us to take a fresh look at ourselves, map whatever skills and competences we had and make an analysis of what competences we wanted to build during the PhD … so it forced me to think of my PhD in a different way. More as a learning process, I believe.*
>
> (Wendi, Germany, Soil Science)

A Collaborative Framework for Doctoral Development

Doctoral education involves a complex mesh of learning including gaining disciplinary research approaches, academic competencies and conventions, and employability-based 'skills training' rationalised through learning the arts of reflective practice, self-governance, and project management. The comprehensive UK-sector document *The Researcher Development Framework* (Vitae, 2011), which was delivered following the Roberts (2002) report on UK STEM PhD graduate skills, lists a large number of skills across four domains of doctoral learning; this framework, despite existing criticisms (Hancock & Walsh, 2016), has been adopted throughout the UK, and beyond, by the European and Australian HE sectors.

Understandably then, the responsibility for meaningful doctoral researcher learning is a shared endeavour (Portsmouth, 2017). In the first part of the book, we dived deeply into the responsibility of the individual doctoral researcher in becoming aware of, accessing, and deriving learning from the formal and hidden curricula. This part of the book introduces other key players in doctoral learning by looking across the many roles and functions of higher education (HE) staff members, for example, supervisors, PGR tutors or convenors or directors of studies, researcher development professionals, doctoral programme administrators, and course coordinators. Each takes defined roles in the formal doctoral curriculum and in the shaping of the doctoral learning environment. There are far more university staff who have the potential to contribute to the development of doctoral learning too, and these could include public engagement specialists, research impact managers, research librarians and those accountable for the responsible use and open reporting of research data, English language support centres, academic skills and academic writing facilitators, disability advisors, counsellors and wellbeing staff, and digital learning technologists. Taken together, the landscape for doctoral learning is indeed rich and complex.

Navigating a Rich Tapestry of Opportunity

Within this dynamic intertwined mesh of players in the researcher development space, each with their own agendas and targets for engaging professional learners across the organisation, there is a huge potential for doctoral researchers to receive conflicting messages about what the most important, and more urgent, aspects of the doctoral learning experience are. It is a well-voiced concern in a number of institutions that doctoral researchers can experience learning fatigue, and so, they feel they are stressfully overloaded with opportunities. In turn, they do not know which opportunities to choose. It may be hard within such a collaborative framework for learning for them to discern which of these opportunities are part of the expected formal curriculum, which belong to the hidden curriculum, and even which are irrelevant. This is an important consideration; if we are not careful to define and communicate a framework for seeking and engaging with learning, with the doctoral researcher at the centre who is in control of the experience, we set up the potential for each university function to be in competition for doctoral researchers' time, energy, and focus. As a fundamental example of this, a widely experienced and well-documented phenomenon and source of doctoral stress occurs when supervisory teams have misaligned expectations of the doctoral researcher and of each other. The competing and conflicting agendas caused by the spatial, temporal, and disciplinary separation of a researcher's individual supervisors have been documented; this then impacts upon both the doctoral experience and the researcher's ability to reconcile and manage the competing messages while making positive progress in their writing (Guerin & Green, 2013).

Access to meaningful development activities, opportunities to meet peers and build personal and professional networks, and the quality of supervisory relationships are key factors that contribute to the perceived value that researchers derive from their doctoral degree. In an earlier study, Bryan and Guccione (2018) found that regardless of whether they had had an overall positive or overall negative experience in their doctorate, graduates derived many benefits from their time studying. These benefits then impacted on their career, long-term friendships, skills, and attributes. Additionally, they had a positive impact on how they viewed themselves and their place in a globally connected world. It is worth noting that the doctoral graduates in our study remarked that it was the 'extracurricular' opportunities, that is, learning that lies outside the formal curriculum of research work, that they valued the most—both personally and professionally. The importance given to these opportunities outside the formal

curriculum means that from the start of the doctorate, navigating the formal and the hidden curricula, and the intersection between the two, can be argued to be of the utmost importance. We will also take a deeper dive into this model for navigating and maximising the value of the doctorate in Chap. 5.

NEGOTIATING LEARNING FROM THE OUTSET: TRANSITION TO DOCTORAL STUDY

There has been a tendency to assume that the transition to doctoral study is taking place in a similar educational environment as undergraduate study, and so, it will not be problematic (Tobbell & O'Donnell, 2013). However, the doctorate is arguably distinctive as it is associated with transition from a taught system of learning into one driven by independent study (Laudel & Gläser, 2007). This, therefore, suggests that the thinking, planning, and relational strategies that they developed through their prior experience of a more structured and conventional university study need to be re-examined for the doctoral level. It is because not knowing 'the rules' of academia or being overwhelmed by multiple 'development opportunities' and having never experienced the researcher-supervisor relationship, doctoral researchers may find it difficult to transition to the demands of doctoral study. This may lead researchers to experience feelings of insecurity and vulnerability related to intense learning (both formal and hidden) involved in the doctorate, and particularly with the challenges of reshaping their prior learning strategies to doctoral study (Guccione, 2018).

One way to go about such a re-examination of strategies and the rationalisation of which development activities to engage with, and one which any of us with an interest in supporting meaningful learning can make use of, is to take a learner 'needs-driven' approach. This approach also intends to help individual doctoral researchers to navigate the formal and informal curricula, rather than feeling like an overwhelmed victim of the competing systems, or operating in survival mode (Kobayashi, 2014). Rationalising the offers, opportunities, pressuring messages, and tacit expectations with a view to constructing *their own* coherent and aligned goals for *their own* development is arguably an empowering act. In this chapter we will present examples of university initiatives led by researcher development professionals. Such initiatives strategically aim to give the researchers a sense of control by placing them at the centre of their doctoral learning experience.

A Person-Centred Approach for Navigating the Formal and the Hidden Curricula

A common approach to supporting researchers to navigate and access the interweaving formal and hidden curricula is via a new researcher introduction or induction course—offered at the department, school, faculty, or institutional level. Our example, a four-day residential course, is perhaps very similar in its aims to many similar endeavours across different universities. Its main aim is to assist doctoral researchers to take ownership of and responsibility for managing their research projects and, indeed, their broader educational experience. The post-course reflections that these participants willingly shared as part of an explorative study have provided rich insights into how such courses can powerfully challenge doctoral researchers' thinking. Not only can they change the way doctoral researchers view what the doctorate is about, they are also likely to influence their own actions, particularly how they navigate their respective doctoral journeys. In this chapter, we present illustrative examples of these course participants' reflections.

We start with a comment from a (now graduated) doctoral researcher who faced difficulties with her supervisors, who were separately based in Ghana and Denmark, and each pulling her project in different directions. She encapsulates the most important aim of the introduction course, that is, to take charge: 'I finally got my supervisors to agree between themselves and I am on track! As we were taught, I took hold of the situation and focused on the fact that it is MY PhD!'

This course was designed to help researchers understand, seek, and leverage the formal and the hidden curricula by discussing all the 'grey areas' of the research environment as well as various interpretations of the 'rules' (both written and unwritten), with a clear aim of reconciling the two sides of the coin. Doctoral researchers are supported in an integrated way, that is, to interpret concepts such as supervision, literature review, and project planning, in light of the wider implicit expectations placed upon them. Interestingly, they come to this shared space to gain this taught insight (or the formal curriculum), and in doing so, they meet others like them, they compare stories, and together, they make sense of their experiences so far (or the hidden curriculum). Through the processes of reflective learning and peer dialogue, they are able to unpick their role and identity in the departments and in the university, and their relationships with others close to them.

The major focus of this course is to consider the person before the research project. In doing so, the aim is to equip these novice (doctoral) researchers to manage their educational journeys in a way they find

personally meaningful. The course convenors carry this person-centred concept through the four days and support the course participants in their efforts to view themselves as the managers of their own learning and development, transitioning into a new role. One participant expressed her experience of this approach in an interview (see Kobayashi, 2014):

> These guys [the course convenors] are lecturers and they supervise PhD students, so if they know that I am not just a PhD student, but that I am a person, then that actually makes it better for you as a student … then I also see myself as a person. (Sally, Botswana, Food Science)

The course design, its duration, immersive nature, and remote location allow for open discussions where doctoral researchers can share their worries without the fear of being judged. It transports participants out of their departmental context in which they are viewed merely as 'PhD students'. They are then provided a safe space where they are encouraged to take a fresh look at their goals and ambitions, and the new learning they need to achieve these. Viewing them as whole human beings each with their individual hopes, aims, and aspirations is core and allows them to step back and appraise themselves, by almost taking a 'look at themselves from outside', so to speak. In this process, they are asked to think of themselves as *actors* in their own developmental process, which is somewhat embedded in their whole lives. This idea of nested contexts chimes with Bronfenbrenner's bio-ecological system's theory, which we discussed in Chap. 3. This theory provides a useful framing when considering further the following ideas in relation to the meshing of the formal and hidden curricula, within the 'researcher development' space.

Embedding Personal Development Within Professional Development

A pedagogical device we employ to achieve detailed self-evaluation is called personal development planning (PDP), which is widespread in higher education institutions in the UK (cf. Strivens & Ward, 2010) and also draws upon a learner-centred philosophy of education (Jones, 2007). The PDP format and the process through which the plan is completed can utilise different platforms, as well as one-to-one, and peer group activities (in our case we designed a simple Word document template for participants to populate according to their own needs) which will be discussed further in Chaps. 5 and 6. Throughout the four-day course, participants actively worked with the PDP, evaluating their position, what strategies and ways of

being they would like to leave behind, and what new learning could support them to move towards their goals (Bridges, 2003). Their own reflective learning is supplemented by group discussions, structured learning exercises such as photo-elicitation (Harper, 2002), and peer feedback.

Course convenors or facilitators took great care to bridge this personal transitional identity work with planning for the development of core researcher competencies, linking the plans where each new researcher is being introduced into the formal curriculum of supervision, project planning, and the delivery of the required writing. After this deep dive into reflective learning, the resulting personal development plan is paired with a framework for aligning expectations with the supervisor. Researchers were asked to present their plans for discussion and agreement with their academic contacts. This served a special purpose of ensuring that the learning outcomes from the course could be later embedded in the local study environment as part of the formal curriculum. It also then ensures that supervisors understand the researcher's position, their motivations, and their future intentions.

We give Wendi's (Germany, Soil Science) case greater space as it is an illuminating example of bridging the formal and hidden curricula through discussion. Further, Wendi has clarified how personal learning from the course can be embedded within the supervisory context.

> I found it quite difficult to start on a PhD in life science, myself having a background in engineering. I kept comparing myself to my fellow PhD students in the group, and it always seemed like they were much ahead of me, more data, good results, manuscripts submitted for publication, and all very knowledgeable in the field. It's a good little research group, but I felt very small, so to speak. I signed up for the Introduction course that people around me recommended. Not for any specific reason, just that it was a good course!
>
> This was surely a good course for me, but not for the reasons I envisaged. I thought we would be introduced to the rules and organization and get some level of training in transferable skills. It wasn't really about that. The course started out with a presentation from this guy from the PhD office, but then the discussions were twisted into how to interpret the rules, the grey zones, how much we may bend the rules, which was quite a relief! They are humans after all, behind the ticking boxes at the progress assessment reporting.
>
> We were asked to pick a photo among many photos displayed. A photo that could represent our expectations to the course. I picked one with railway tracks intertwined, because that's how I felt about my PhD and about the course. Maybe the course could help me straighten out some of the tracks and pick the right one?

Unsure of what to expect, Wendi came with feelings of being 'very small', not on a par with other doctoral researchers who were seemingly 'much ahead' of the game. Surprisingly, she found the course to be very useful, an eye-opener. It offered information beyond what most doctoral researchers are expected to know, that is, the official and formal components of the doctorate. Instead, it provided a holistic view of the doctorate, including understanding the 'grey zones', interpreting the rules and regulations, even bending the rules to an extent. This introduction course gave Wendi a clearer appreciation of what a doctorate truly entails and what her distinctive role is in leveraging her overall doctoral learning experience.

At the end of the course, Wendi's new understanding, leading to a changed attitude that is characteristically much more positive towards the doctorate, is clearly conveyed by the photographs that she selected (see Figs. 4.1 and 4.2).

> The course was packed with exercises that forced us to take a fresh look at ourselves, map whatever skills and competences we had and make an analysis of what competences we wanted to build during the PhD. We had this document, a PDP, where we could state whatever problems we had, what
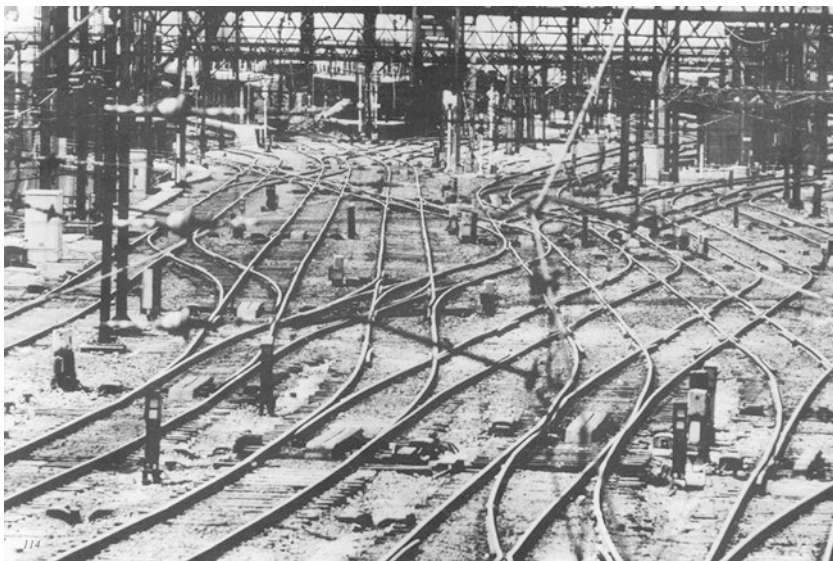
Fig. 4.1 Photo-elicitation exercise 1. Chosen to represent feelings about the doctorate on incoming into the introduction course. (Photo reproduced with kind permission from the Catholic Education Office, Sydney)

Fig. 4.2 Photo-elicitation exercise 2. Chosen to represent the concept of applying personal learning from the introduction course back into the departmental context. (Photo reproduced with kind permission from the Catholic Education Office, Sydney)

we were missing, where we could find it … so it forced me to think of my PhD in a different way. More as a learning process, I believe. Then, at the end of the course we [did] this picture game again. I picked a photo to represent my feelings about going back to the university: I was ready to take off!

It's a paraglider, ready to take off, but he is not alone. There are people around him to support him, and that's how I felt. I had met a lot of other PhD students with similar problems like me, and I no longer felt alone. The course didn't make the PhD study easy, but it helped me take charge of the process. Another part of the course was to set up a meeting with my supervisor, to discuss the PDP and to align expectations for the supervisory process. This meeting was an icebreaker for me! The discussion of my PDP was a starting point of a much closer relationship to my supervisor than it had been before the meeting. We got to know each other better, and this enabled me to bring up complicated topics in the following supervision meetings.

Wendi explained how the course-required 'meeting' that aimed to discuss expectations with her supervisor has also paved the way for a stronger
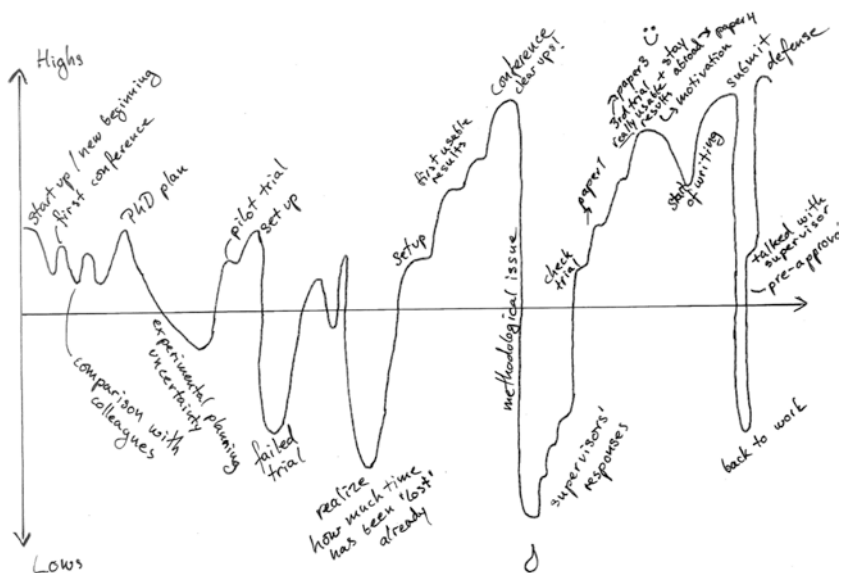
Fig. 4.3 Journey plot exercise showing the emotional highs and lows of doctoral candidacy over time. This is accompanied (below) by a retrospective look on how the supervisory relationship, developed through discussion of the PDP, was enhanced during a challenging time in the research trajectory

relationship between them. Looking back, when she encountered 'trouble with [her] experiments', the healthy relationship that they developed encouraged Wendi to approach and seek support from her supervisor. Using a 'journey plot exercise', Wendi visually presented a 'timeline' that 'depicted' [her] journey through doctoral studies (see Fig. 4.3).

> The worst point in time is shown here with a tear drop. I realized a methodological issue in my experiments, and I thought that the data I had collected was useless. Having a trustful relationship with your PhD supervisors is fundamental to sharing difficulties and getting things back on track. One by one, my three supervisors responded in the middle of their summer vacation, and we figured out how the data could still be used.

Wendi's story illustrates some of the functions that an introduction or induction course can provide in bridging the formal and the hidden curricula, and in mapping learning about the self, into the research supervisory relationship. McPhail and Erwee (2000) point to three critical aspects

for establishing a robust working relationship between a doctoral researcher and their supervisor(s): 'setting mutual goals and objectives', 'the emergence of social bonding', and 'development of trust'. The personal development planning activity sets out to facilitate just this, through including purposeful elements that doctoral researchers are prompted to reflect on, as detailed below.

To use the template in Box 4.1 as a personal reflective evaluation, try to be honest about your situation, understanding, and skills. You can refer to

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Box 4.1   Elements of the Personal Development Plan

1. Personal profile: This planning tool starts with your personal profile, who are you, why did you choose to embark on doctoral studies, what might your career goals be five years from now? Do you have one goal, or a range of options?

2. Record: Explore your current competences, skills, and capabilities—What are you good at? What can you do, how well, and what evidence or proof do you have to back up your claims? This record is meant to grow through your doctoral education and beyond.

3. Plan: Next follows your plan for developing new competencies. What do you want to learn, what skills, practices, and competences do you want to develop further? And how, specifically, will you do that? When will you do it? What do you aim to achieve in the short term and in the long term? Think of this part as an action plan and a possibility for you to take charge of your own personal development.

4. Balancing work life and personal life: Doing a doctorate can involve a lot of pressure and therefore the temptation to work very intensively. This section is meant to get you to consider and plan how you will keep a good balance between work and leisure time and to stay healthy throughout your doctorate (and beyond).

5. Network: The following section concerns your network. Who can help you achieve your plan? Who is in your professional and personal networks? Assess your current network, are there gaps? How you will sustain and develop your network? Who would you like to meet?

6. Supervision: The last section in this planning tool asks you to reflect in your collaboration with your supervisors—they are key players

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the UK's Researcher Development Framework (RDF) (Vitae, 2011) to support you with this. The RDF lists the common skills and competencies researchers need to succeed. In your reflection try to be as detailed and specific as you can about identifying development activities, actions to take to balance work and personal life, and working with others. Add a time-frame to your plan, and balance your development throughout the coming year, and beyond. To use this template with a group, why not try photo-elicitation (choosing from images that represent your situation or taking your own images as presented in this chapter). Comparing your journey mapping activities can stimulate new thinking and help identify ways around challenges that have arisen.

We offer our ideas (Box 4.2) as conversational prompts that can enable doctoral researchers and their supervisors to open up discussion about the modes and conventions of doctoral study and, in doing so, address the unwritten and unspoken rules of the hidden curriculum. Discussing these issues openly, firstly, supports the co-creation of a plan that addresses tensions and areas of shared interest. Secondly, it helps the doctoral researcher (and/or their supervisor) operating from a position of assumption about the best or the right way forward.

Sharing the reflections, motivations, and future plans inherent in the PDP with the supervisor provides an opportunity to talk about mutual goals and objectives and how the aims and aspirations can be fitted into the doctorate. It also demonstrates a willingness on the part of the doctoral researcher to own and manage their personal development. The section on balancing work life and personal life also opens up an opportunity to get to know each other as people, enriching the partnership by sharing and comparing ideas beyond strictly academic topics. The relationship can be of professional nature, but the respect and integrity involved in seeing the doctoral researcher as whole person adds a new dimension. We stress

Box 4.2   Clarifying Expectations Discussion Prompts

These six areas of the formal curriculum can be considered by researcher and supervisor together, with topics for conversation selected as needed. Discussing the practicalities and preferences of these key milestones and responsibilities supports doctoral learning that reaches beyond the formal curriculum and into the hidden.

Communication: How do you each prefer to communicate? How frequently will you have face-to-face supervision meetings? Who takes responsibility for organising meetings? Who prepares the materials and agenda for supervision meetings? Who takes the notes, how are they used, and where are they stored?

Boundaries and confidentiality: What are each of your boundaries around communication modes and reasonable working hours? What personal issues should you share between you? Can you each share confidential things, and trust that they remain confidential? Who takes initiative to raise the issue if they feel something is wrong?

Project management: Where should you keep a shared project plan? Who is responsible for updating the plan? Who needs to be consulted if the plan changes significantly? Who controls the project funds? To whom do we report on progress, and how often? Who is responsible for overseeing good research practice and good ethical conduct? What do you need from each other in terms of staying 'on track'?

Writing: What types of writing will the doctorate involve? Who decides when it's time to write? What are the essential starter articles that will begin the literature review? How often and how much should a researcher be reading? What's the best way to keep records or notes of reading? When is the right time to seek feedback, and how long will it take to get feedback? How many times should you receive feedback on the same piece of writing? How often and when should a researcher go to conferences? If publishing together, will your supervisor contribute to articles as a co-author? How will you decide on co-authorship (e.g. Vancouver rules)?

Monitoring progress: What are the goals and standards that must be met to award a doctorate? What are each of your goals for the doctorate, what would enable you both to say it was a success? How often will you check in and monitor the progress being made?

Box 4.2   (continued)
How will you measure if the quality of the work is good enough?
How will you learn to judge the quality of your own work? How will
you each know when the doctoral researcher has become the expert,
and exceeded the supervisor's expertise?

Supervisory practice: What different supervisory roles or styles
may be needed over the course of the doctorate? How will you com-
municate about what you need from each other? Who can the doc-
toral researcher contact if problems arise in the supervisory process
which cannot be solved between you?

**And finally, when and how will you revisit this agreement
and assess if changes are needed?**

*This was developed by one of the authors and colleagues as teaching/
learning material.*

that being viewed as a whole person is not necessarily the same as 'being
close' or being friends, and yet, it is still possible to retain a professional
boundary. Operating within a personal but comfortable boundary creates
social bonding, appreciation of each other's preferences and styles, and
professional respect. We need to remember that supervisors are whole
people too, and learning will take place on both sides of the partnership.
It is then worth remembering that meta-communication about the super-
visory process is the first step in building a trustful relationship. Trust on
both sides is built over time, in response to each encounter (Guccione, 2018).

As once referred to in PhD comics (www.phdcomics.com), the student
is not just a 'brain on a stick' to be utilised for knowledge production and
publication records. A doctoral researcher from India expressed it this way:

> But I was actually surprised that it was this informal here. You call the super-
> visors by their first name and they ask you about your personal self, like,
> 'How are you doing, are you adjusting to the weather?' and during the first
> few months … 'Is everything okay with the accommodation?' (Simrit, India,
> Agricultural Science)

What Are the Final Key Messages?

In this chapter, we have demonstrated the importance of supporting new
doctoral learners to interpret and navigate the formal and hidden curricula
to their advantage. We have given a detailed example of a person-centred

approach and accompanying facilitative mechanisms to assist doctoral researchers to examine their position consciously and their overlapping bio-ecological systems for learning. We have provided primers that can support doctoral learners to evaluate their areas of competency, areas that have already been developed and those areas still needing to be developed so that they may move from being unaware of what is required of them towards gaining the self-confidence that comes through becoming consciously competent. Finally, we have demonstrated how the hidden curriculum and the formal curriculum can and should be bridged and mediated through the key relationship(s) with the doctoral supervisor(s). In conclusion, we invite those who design events that serve as doctoral researcher induction, introduction, or orientation sessions (and any researcher development activity) to reconsider doctoral researchers' positioning.

Accrued sector insight into the doctoral experience, and the challenges of developing PGRs, has led to recent shifts in the understanding of the role of Researcher Development Professionals, with mentoring, coaching, dialogic and relational approaches taking over 'skills training' spaces. Therefore, we ask researcher developers, in particular, to invite the hidden curriculum into your events and workshops and classrooms and to harness it as added value. By making this recommendation, we also highlight a crucial question for development professionals, convenors, and facilitators and all those who seek to harness the hidden curriculum. As parts of the hidden curriculum become revealed, harnessed, and given explicit spaces, objectives, outcomes, and shared as best practice, did it gradually morph and become part of the formal curriculum? In Chap. 5, we will present a series of further ideas, and examples, that can be adopted and adapted by anyone with an interest in employing and/or 'blending' the formal and hidden curricula. We will also then take a deeper dive into the aspects of personal choice, and control, as we further navigate the formal and hidden curricula within doctoral education.

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Personal Pursuit of the Hidden Curriculum, Value, Choice, and Ownership

Abstract A doctorate is an individual endeavour into deep learning about the self and one's subject of choice. Doctoral researchers have diverse past and ongoing lives, personal and professional motivations for embarking on a doctoral journey, and different aspirations for post-PhD careers. Recognising these preferences, priorities, and time pressures will influence how individuals construct and navigate their journeys. As supervisors and researcher developers support doctoral researchers towards 'independence', instituting informed choices within their learning framework is paramount. Their support involves encouraging doctoral researchers to cultivate reflective planning and take ownership of their choices as they navigate opportunities via formal and informal learning experiences while stressing that tailored learning is a fluid and personal process, both within and beyond the walls of the university.

Keywords Doctoral values • A personal pursuit • Aspirations post-PhD • Reflective planning • Ownership of choices • Tailored doctorate learning

How those years of life included conferences and friends, emails, tickets, stickers, how the PhD included much thinking not gathered in the thesis, notebooks, ideas, scribbles, doodles and showing also how the process was made through reflection—the notes from the drawer, the drawings from the margins.
(Kara, UK, doctoral researcher)

Exploring Doctoral Values

In this chapter, we continue with our discussion in Chap. 4 with a view to enabling researchers themselves, individuals who supervise researchers, and those who design doctoral learning programmes to consider the different ways that valuable experiences, information, and relationships can be cultivated within the doctorate—eventually leading to a doctoral learning ecology model (see Chap. 7). Let us begin with the model of 'doctoral value' created by Bryan and Guccione (2018) based on their research with doctoral graduates. In Fig. 5.1, this interview-based model strongly suggests that what constitutes 'value' is personal to each individual; this may take the form of new information, understanding or insight received, abilities or skills acquired, and relationships, friendships,
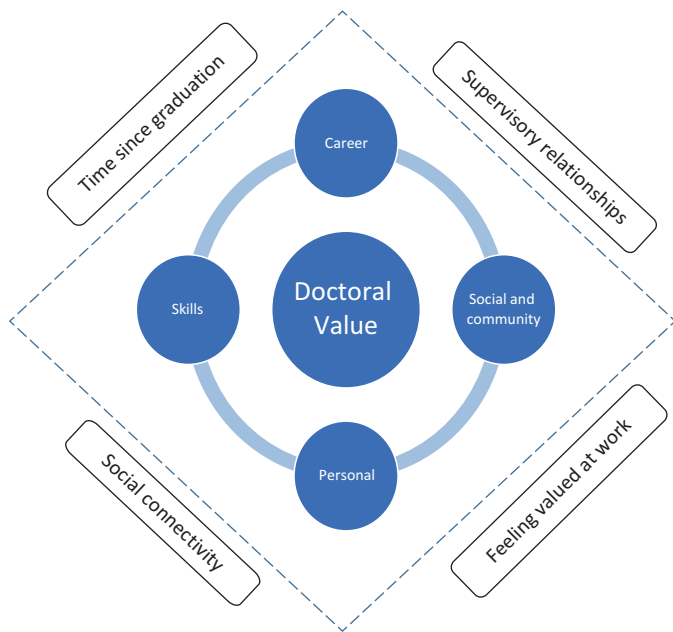
Fig. 5.1 The central tenets of doctoral value: skills value, career value, social value, and personal value. These domains are influenced by the surrounding four main influencers of value judgement. All components were common to all but experienced differently by individuals

or social support developed. Value, according to each doctoral researcher, draws upon what they need based on their personal preferences as well as their responsiveness to the opportunities afforded to them.

The doctoral graduates from Bryan and Guccione's (2018) study reported that they had proactively sought and engaged with opportunities comprising both the formal curriculum of research experiences and through the hidden curriculum, which they accessed through building personal and professional networks. The benefits they gained impacted on their career, long-term interpersonal connections, and skills and attributes within their chosen employment paths. Likewise, it had positive impact on how they viewed themselves and their ability to navigate and engage with information, for example, using high-level doctoral critical thinking skills to discern between credible and 'fake news' in an informed, relevant way.

As predicted, the derived benefits that individual graduates reported they gained from their doctoral study are weighted and utilised in different ways by different people. For example, whilst one researcher may value their sharply honed critical thinking skills as their most valuable asset, another may place the highest value on the lasting networks of friends and colleagues worldwide. This implies that whether and how much we see value in something depends on our uniquely individual situation. Nonetheless, all study participants identified four main influencing factors in making judgements about the value of their experiences. These were time since graduation, experiences of supervision and disciplinary/departmental relationships, how easy it was to socialise and become connected within the doctoral experience and the networks they were able to join or build, and how positively their postgraduation employer valued their doctorate.

These four variables in Fig. 5.1 offer an indication how doctoral researchers can access and utilise formal and hidden opportunities to learn and grow. For example, a researcher in a shared research office and surrounded by a supportive and open department culture has plenty of opportunities to access the 'tea room news' and the 'corridor conversations' that contribute to their understanding of the 'norms' and conventions of the research discipline and/or the department's ways of working.

> So, that PhD office, it was full of all of us doing our own thing, but all needing to know the same things, could be, where's the papers I need? What conference is good? Sharing what you learned, good or bad, stops everyone reinventing the wheel over and again, you know? Because if you just go across and say to your mate, 'hey, what was that paper where they showed

that X protein is expressed in Y conditions?' and they can tell you … that's time you save for a start, and you share it back the next time. Even just listening in to other conversations, yes, ok, it's sometimes annoying if people are chatting, but, so, you do learn and think, 'OK I didn't know that'. People who, ah, work at the library, or at home all the time, they're doing all the brain work themselves. (Miguel, Spain, Biomedical Science Graduate)

Graduates in this study (as well as other doctoral researchers) reported the tendency to feel enriched by and being grateful for the support and camaraderie of other doctoral researchers and postdoctoral research staff during their studies. Although learning is originally based on formal curriculum's cohort-based activities, it also informally taps into hidden curriculum learning acquired via shared spaces, for example, communal break rooms, shared offices, and after-hours social events such as sports teams or regular visits to a pub quiz. Many even attributed their successful doctorate to their peer group—valuing peer support above other formal curriculum relationships with supervisor(s). Interestingly, peer group support and support from postdoctoral researchers have even been suggested to have mitigated some of the negative effects of low-quality supervision or poor supervision relationships (Devenish et al., 2009).

I certainly feel like the peer network was more valuable, and I got more in terms of academic support for my PhD from my peers than I got from [my supervisor]. (Karen, UK, Humanities Graduate)

These various exemplars strongly suggest that succeeding with the doctorate is personal and is fulfilled by the combined learning gained through both formal and hidden curricula, particularly via peer networks and relationships developed. More importantly, doctoral graduates perceive that learning via the hidden curriculum is indeed a *valuable* source of learning—one that is worth seeking out and engaging with.

'TOUR GUIDES' ON THE ROUTE TO RESEARCH INDEPENDENCE

In a related study, Guccione (2016) enquired into early career researcher experiences of gaining a research fellowship award (their first experience of gaining research funding) within the UK higher education academic career pathway. Twenty-five 'fellowship stories' resulted in in-depth personal narratives of how they navigated the hidden curriculum in gaining their

research independence. Developing a profile as an independent researcher postdoctorate can be a process of constant self-awareness, critical evaluation, and changing priorities, and there is no prescribed 'right way' to go about it. Albeit postdoctorate, the task is similar to the navigation and 'value-seeking' processes during the doctorate. There was neither an obligation to succeed nor a formal structured pathway to follow. Instead, this active self-evaluation, information gathering and re-positioning, arguably relies almost exclusively on accessing learning from the hidden curriculum.

> There was [a] small group of people who I met with periodically as I came up with ideas of things to do. I have in my documents on my folder on my computer versions of things I might like to study … initial project ideas. I would sort of go and discuss them with people and they would say, no that's not very good, or that's got potential. You could do something with that, go away and work on it again … it was definitely a process of changing things in response to what other people said. (Sylvia, UK, Sociology)

The ability to access this learning and 'create your own pathway where there was none' was strongly reflected throughout all the successful fellows' narratives; this had required them to access the hidden curriculum by 'activating' the people around them, so to speak. This means identifying and interacting with contacts from their networks, for example, in order to garner support for their funding application. It was impressed on them that the process of gaining independence requires drawing upon both the formal curriculum of supportive relationships (supervisors, head of department) and valuable hidden players (mentors, current fellowship award holders, even peer applicants). These participants who have succeeded in gaining their independent status all emphasised the importance of being proactive through the use of such expressions as 'making things happen', 'don't ask, don't get', or 'going out and making sure things get done'.

> There were a couple of people there who had gone through the process and they passed their applications my way. I got a lot of feedback and it went through quite a lot of iterations. (Elsa, UK, Engineering)

Let us pause here to step back and look at the 'big picture'. McAlpine, Amundsen, and Turner (2014) offer us a valuable conceptualisation that is widely used in researcher development, which they term 'identity-trajectory'. This perspective considers the influence of personal lives, past and present, and career hopes and aspirations as being central to the decision-making process related to investment in different activities and experiences

during the doctorate and afterwards. We can see this playing out in Bryan and Guccione's (2018) study, for example, what is 'valued' from the doctorate is influenced by the individual's personal situation and values. In the case of the successful fellowship winners, their aspiration to succeed with the fellowship determined how they prepared for it. Notably, this transpired within a system that neither required nor expected a fellowship application. Central to the 'identity-trajectory' concept is the idea of 'agency', as McAlpine and Amundsen (2016) put it, our 'efforts to be intentional', or as the successful fellows describe it, 'making things happen'.

ENABLING 'AGENTS' TO CHOOSE THEIR OWN ADVENTURE

The landscape in Fig. 5.2 illustrates the distributed learning opportunities that are likely to be present within doctoral studies. As we have argued earlier, every doctoral researcher will have different opportunities available to them, combined with different preferences, priorities, and pressures. In turn, they then perceive and navigate the landscape differently. Yet, the

Fig. 5.2 The doctorate seen as a landscape. (This image was created by Jesper Rasmussen)

traditional but persistent viewpoint is that the doctorate is a study programme with the supervisor(s) as the guide and where the doctoral researcher learns to walk the route as laid out by their supervisor. This view positions the doctoral researcher as a passive follower and leaves them with little agency to decide for themselves what they need, what is of value to them, and how and when to act upon it. Instead, we draw upon Boud and Lee (2005) in framing our further discussion of the ideas based on distributed learning 'in which learners take up opportunities in a variety of ways without necessary involvement from teachers or supervisors' (p. 503).

Boud and Lee clarify what personal learning is like by showing how researchers, when presented with similar opportunities, perceive and use the learning environment very differently—depending on whether they position themselves as 'student' or as 'becoming academic'. They highlight the difference between these two positions—the 'student' and the 'becoming academic'—and how the position selected can affect perceptions of what the inherent doctoral learning processes involve. If we imagine doing the doctorate as a 'student' experience that involves the same learning processes that served us well in our prior student life, we will then adopt a similar set of strategies for thinking, planning, and behaving that previously worked for us. Positioning themselves as a student worked well for the doctoral researcher who has situated their learning strategy within his own planned trajectory for work and careers:

> I came in knowing that I wanted to use my three years' time to continue enjoying my student life and the flexibility it brings, and stretch myself and become a doctor, working at that level. At a careers fair I heard about working in Patenting as a lawyer and that a PhD was a good step towards that. My approach was to think of the outcomes I needed to show to pass and move on. I need to get a certain amount of data, write a thesis, and then defend it, and not get distracted on the way. I was thinking right, for Patenting really don't need public engagement experience, or to publish many papers, and I didn't need to review papers, be writing off to get more money, spend time getting into running conferences or sitting on committees. I got my head down and got the thesis done. (Keith, UK, Medical Sciences Graduate)

Conversely, another example illustrates a different take on the 'student' position and the frustration belying the approaches created by that position. Subsequently, it led to greater frustration of 'waiting for the rules to

be communicated' and eventually leading to wasting of invaluable doctoral time and perception of her doctorate taking 'forever' to complete.

> The move to PhD level was hard … It took me a really long time to get my mindset right for taking on the PhD and making it move forward. Because I had been a student for years, I thought I knew how to do it. OK great, I'm a student again, more of the same. So I waited and waited for the PhD version of the 'course aims', the 'marking criteria', the 'timetable of classes'. I knew those things didn't exist in the same way, but I felt that my supervisor would have a different way of communicating these things to me, and I'd understand eventually. I listened to her so attentively, took notes, completed tasks, I made more notes, filed them, and revised them. But no end of module 'test' came. Instead I could see I wasn't doing it right, but I didn't know why. I could see others around me, behaving differently and I tried to know from them what they were doing differently, why they seemed more in control. (Alison, UK, Biological Sciences Graduate)

While clarifying the importance of 'positions' adopted, we also do not want to lead our readers into thinking that either the 'student' or the 'becoming academic' are the only two options for navigating the doctoral processes. Since most doctoral researchers will not 'become an academic', it is perhaps a better idea to think of the researcher, in the doctoral learning process, as the 'becoming professional'. The strategies outlined here are mere examples of possibilities for personalisation of the doctoral learning process. Perhaps your own strategy could be one of many possible positions, as discussed in the work of Sally Hancock (2019) who interviewed doctoral scientists as they engaged in their own highly individualised trajectories. Participants in this study spoke of how they negotiated the 'academic game'—its rules, successors, and transgressors—and of how doctoral scientists weighed up the risks and benefits of their personal learning strategy. These examples and the countless others may draw and derive value from both the formal and the hidden curricula. The discussion here is linked to Chap. 4 where we discuss ways by which institutions can bridge the formal and the hidden curricula by creating opportunities for distributed learning and supporting doctoral researchers as they become 'self-organising agents', as Boud and Lee (2005, p. 514) put it.

Approach to Personal Development Planning

The approach to personal development planning we advocate for intends to ensure that the doctoral researchers have ownership over this very personal process. It is worth advising caution at this point, that is, that simply providing 'menus' of formal and distributed learning opportunities for doctoral researchers to select from will not suffice when engaging them with meaningful learning. Even if a metaphorical road map (or alternatively, a website, timeline, handbook, or a graphical representation of the doctoral journey) is offered, it could only be helpful to those who have the agency to use it. Hence, any value-adding introduction or induction activities for new doctoral researchers must include support for personal introspection, and collaborative learning and planning, which is enabled through distributed peer learning. Although our own institutions are not unique in offering such depth of support for personal development planning, a great number of universities include some of the elements we have detailed through Chaps. 4 and 5 as well as in Chap. 6. Whilst we hold firmly to our own preferential stance—advocating for face-to-face peer learning, coaching conversations, and distributed support—other institutions also address the challenges they face in reaching and including doctoral researchers by creatively devising apps, online platforms, and e-portfolio approaches, which offer the benefits of being inclusive, particularly to researchers who cannot easily, logistically, or affordably access frequent face-to-face sessions.

We note however that the tendency to use e-portfolios as a tool to support personal development planning is working its way into university policies. For example, this is becoming as commonplace in the UK (QAA, 2009; Strivens & Ward, 2010). We once again advise caution in viewing technology as a substitute for learning design, rather than a complement to a person-centred learning approach. The overall purpose of any formal curriculum learning device or tool associated with personal development planning (be it a purpose-built app, and e-portfolio, a Word document, or a humble Post-it note) is to help doctoral researchers to make sense of their needs and to capture and own what they have learned. (At times, the purpose of the app, or e-portfolio, Word document, or Post-it note, is not to support learning, but merely to create evidence of learning activities to demonstrate that the institution has complied with policy. Therefore, we need to be wary of creating an institutional process that demands time and money but does not deliver results that enhance doctoral researchers' experience.)

Instead, the formal process of self-review and development planning requires us to open the doors to the notion of expanded hidden curriculum and hence maximise the learning experience. The first aim of intertwining of the formal and hidden curricula is to *illustrate in practical first-hand terms,* not just theoretically, how doctoral researchers can learn from one another and the wider environments around them—they experience this way of learning with others in a 'micro-context', and they then apply this strategy to their own macro-contexts (McAlpine & Norton, 2006). Secondly, peer learning is a strategy employed *to build accountability for taking action.* Making an agreement with a coach, a peer mentor, or a colleague encourages doctoral researchers to take ownership, build their understanding *and practices* of 'being agentive', and then test out various opportunities gained from both the formal and hidden curricula back in the 'real world' of the research environment, so to speak.

An interview study conducted with a cohort of doctoral researchers one and a half years after they participated in the introduction course has illuminated the different ways of and extent to which researchers have taken ownership of and accountability for their development (Grumløse, Kobayashi, & Grout, 2010). Most respondents specifically recognised the personal development plan as a functional part of the empowerment process, regarding it as a 'tool to help structure their PhD studies'. Exemplars below illustrate the agentive actions taken in blending the formal and hidden curricula together to create positive learning experiences and relationships.

> Whatever problems I had I could put into that PDP. First column: What are your problems? What are you missing? Second column: The solution. Third column: Where do you find it? So I started to fill in. … I was forced to think and look for ideas. Who should I meet? What do I do? So then I got to know my problems and at the same time I got to know the sources where I can get the answers. (Dev, India, Agricultural Science)

> The communication was really highly improved. Because suddenly he knew at what state I was. … Actually, that was the outcome of that course. After that we made the plan and I discussed it with my supervisor … it's really flexible. (Ibraheem, Tanzania, Agricultural Science)

As illustrated by Dev and Ibraheem, the introduction course for new doctoral researchers serves to bridge the formal and the hidden curricula by setting up exercises that are meaningful and supportive in exploring each participant's individual situation. They take into account all the issues

that are otherwise hidden and unspoken, facilitating a discussion with the supervisor, aimed to empower not only the doctoral researchers but also their supervisors, due to their increased personal understanding of the context in which the doctoral researcher operates.

Nevertheless, there were cases where such efforts at ownership and agency were effectively dismissed by the supervisor and subsequently shelved by the doctoral researcher, too:

> I had a talk with him … but I actually think that it became a very brief talk because he said 'I do not know you well enough. You need to take that out to [company's name]. They know you better', I think. (Kyler, Denmark, Industrial PhD, Plant Science)

The last quotation illustrates the importance of the supervisor recognising the value of knowing their supervisees 'beyond the academic' aspect and, then, subsequently using this knowledge beyond the formal and into the hidden curriculum. If supervisors do not value such discussions, then instead of being encouraged to plan more proactively, ideas are often shelved by the doctoral researcher themselves. When asked in retrospect about meeting their supervisor, the majority of doctoral researchers regard their meeting to be important. At times, they are also able to use the meeting as an icebreaker to broach sensitive topics. In situations where there is a strained or non-functional relationship between researcher and supervisor, however, such one-off meetings are not deemed sufficient for repairing the relationship.

When accessing the hidden curriculum and forming a relationship with doctoral supervisor(s), we argue that this need not be in competition for the researcher's attention or time; the 'additional-to-supervisor' players are just that, they add a new kind of value. This is where a network of players, all harnessing different aspects of the formal or hidden curriculum, can potentially make an enriched contribution to learning. Sometimes, they are adding something to the doctoral experience that the supervisor cannot or is perhaps not in the best position to act upon. That may be specialist guidance or educational support, for example, for those requiring a specific methodological or analytical technique or those with English as an additional language. In Chap. 6, we will also cover several practical examples in relation to this activated network of players. Then, in Chap. 7, we will take a more detailed look at the roles of the key players in doctoral networks.

We advocate that learning from the hidden curriculum can powerfully support learning in the formal curriculum. Nevertheless, we recognise that it can be exceptionally difficult to navigate various contexts in the doctoral learning ecology. For example, it can be difficult to be agentive and take ownership of doctoral researchers' time and space if that control and ownership is not given willingly by the supervisor(s), or if the research culture or physical environment is not conducive to allowing this. To some extent, we cannot 'agency' ourselves out of structural disparities, and the responsibility for this must not lie with the individual who is being disempowered by the system or structure. When we encounter situations like this, we advise doctoral researchers of three agentive things they can consider:

1. To ensure they are not operating based on assumptions by checking out the facts with the person involved, supervisor, or otherwise.
2. To connect to more people, not less. Be reminded of the confidence and courage researchers can gain by interacting with their wider networks. It might be worth making other staff in your department and university aware of your situation.
3. To raise their concerns with an open and direct conversation with your supervisor(s) although it may involve delivering unwelcome news, difficult feedback, or unexpected messages.

If you were a doctoral researcher and you notice a lack of progression with your personal development plan, consider that the fear of not being good enough may mean that you have been in a hiding mode. Perhaps, it has been a good while since the last check in and you want to reconnect, or your email requests for feedback being ignored. Maybe, you have been glossing over that fact you have not really made any progress or perhaps even over-promising on what you can achieve or have achieved. You are certainly not alone in this! And the sooner you address the issue, the better for everyone, most importantly, you.

A Doctoral Researcher's Personal Reflection

We close this chapter with a researcher's detailed account of her doctoral story of transition, formation, and becoming. Di Ponti (a pseudonym), who is a philosopher, describes the developmental processes involved in journeying towards her PhD award.

Meta-PhD Offence *by Di Ponti (Philosophy of Science Graduate)*
This piece has been written by Di Ponti for the purpose of sharing her story in this book.

I spent four years writing a PhD. The visible outcome was to be a thesis and a public defence. I couldn't bear the reduction of so much life and learning to an academic document and a formatted lecture. Many stories, many hopes, and many processes get buried under a project. So I started a parallel project 'the Meta-PhD', where I could reflect deeply about the process, try to savage those stories and hopes, and give them the place they deserve, as essential parts of my path where no one could interfere further with my learning, as so many years in school already had. Each time I had to write strictly, references in place, no feelings, I would compensate with writing colourful and insightful notes that I kept in a drawer. The hidden curriculum was far too hidden, unacknowledged, suppressed and the visible curriculum was pushing my limits. The first time I seriously thought of giving up the PhD, as life seemed to lie elsewhere, and the struggles of the institution were becoming exasperating, I looked at the Meta-PhD and thought, 'if I stop here, I would lose the Meta-PhD as well, and I just can't do that.' So, the Meta-PhD kept me going, is even responsible for me having finished the PhD.

The Meta-PhD became 'the Meta-PhD Offence', where I performed, made an installation and an exhibition that happened after the PhD defence, an hour or so later, after a break, receiving the statement and some reception-soup. The exhibition stayed for two weeks at the library.

The Offence had a number of elements:

It started with a performance which was an explosion of life and a space for expression where I could let out what had been contained—starting with a ritual—giving a 'brain' to Fred, the skeleton I had wished and received as the gift for having finished my education in Physics and Philosophy at Harvard, followed by telling the untold stories, from a pile of meaningful notes, and finished with a critical-rebellious act, folding paper planes out of diplomas and official letters making them finally useful.

(continued)

From the performance, we walked with the remaining public, two of the defendants had left in dismay, the third had stayed in admiration (with a comment that this was a cleverer way to deal with one's frustration, as in his time, he only came up with writing angry letters to his professors which he didn't send), we went to the installation 'Tank' at Heisenberg's bathtub on the second floor of the building, next to my office—while the Institute had been Niels Bohr's residency, the second floor had hosted his guests, including Heisenberg, and the original bathroom with the bathtub was still there. The installation 'Tank' pointed out some of the limitations of academic scholarship for the endeavour of learning and thinking when words such as love, intelligence, and cognition are highly praised concepts that stay afloat no matter what gets to be found or discussed—bottles with those 'holy' keywords would float no matter what other pieces they got attached to.

And lastly we went to my exhibition at the library which showed the less visible traces of the learning process—how those years of life included conferences and friends, emails, tickets, stickers, how the PhD included much thinking not gathered in the thesis, notebooks, ideas, scribbles, doodles, and showing also how the process was made through reflection—the notes from the drawer, the drawings from the margins.

It was very meaningful to unfold so much life in this creative manner, perhaps only possible as my adviser saw me and supported me. I had tried to stretch the limits of the thesis seeping in it an artistic chapter, summaries in four languages including Esperanto, witty comments, games, and thoughts in the appendices, including two pages in the end on the Meta-PhD Offence. I had also defended without a PowerPoint using instead colourful pictures of networks and ideas stuck on moving boards. I am though proud of having taken my life more seriously by having taken the courage to make the day whole, accepting that I had to 'defend' and then daring to 'offend'.

The Meta-PhD Offence empowered me and had an impact on what happened afterwards. I never stopped questioning. I've stuck to this way of doubting and challenging and creating new worlds.

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(continued)

I've done some unorthodox choices—it was the beginning of a new life, as I've understood myself as an artist and activist since and moved to the Freetown Christiania the day after. Later, I created a PhD course to provide a space for those who needed to meta-reflect about what they were doing while doing a PhD. 'Originality in Science' brought together researchers, artists, and facilitators. In the end of intense, diverse, and deep exchanges for a week, everyone was asked (no distinction in the process of learning) to make their own diploma (instead of one that could end up as a paper plane).

What has been your journey of learning? What is it that you should be acknowledged for?

At first glance, it seems to be her way of 'coping' with the doctorate and escape by finding alternative way to spend doctoral time. Actually, this doctoral researcher has nurtured creativity throughout her doctoral studies. Doing so has helped her beyond completing; it has helped her acquire valuable lessons that she then took back and applied to her doctoral learning. For example, her reflection has been instrumental in her becoming more aware of the formal scientific requirements of the doctorate, which is against the philosophical and creative processes involved in doing research. Her metacognitive learning experience has contributed to her becoming more consciously competent in judging the required doctoral requirements. We have chosen this detailed personal account in tandem with the examples we have used throughout the chapter in order to illustrate our key messages.

In summary, the key message is—the 'value' that is derived from the doctorate typically comes from an individual's personal intertwining of the formal and hidden curricula. We stress that the person-centred nature of *how* this is achieved is important and will depend on several factors, including the researcher's identity and how they position themselves within doctoral learning. Similarly, their expected outcomes from the doctorate, the structure and quality of the learning experiences on offer (including the micro-contexts they create within formal learning opportunities and the macro-contexts of their department life), and their disciplinary and personal life are equally important considerations.

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Harnessing the Hidden Curriculum, Adopting and Adapting

Abstract This chapter discusses development initiatives that leverage the hidden curriculum via a peer dialogue approach. In response to student-centred learning and development tailored to individual contexts, researcher developers increasingly consider new ways of development experiences by using spaces they create. The outcome is a reduction of deficit-model 'skills training' programmes and instead emphasises learning via collaboration, peer networks, mentoring, and other network-based approaches. By using a more facilitative, coaching style (one-to-one time or classroom-based), researcher developers highlight the value of personal reflection, planning, and goal setting. While broadening the sites and modes of learning has expanded the support and development provision for doctoral researchers, it also creates concerns around reconciling timely project completion and freedom to engage more widely in the available rich learning opportunities.

Keywords A peer dialogue approach • Student-centred learning • Development experiences using spaces • Network-based approaches • Broadening modes of learning • Reflection, planning, goal setting

Training and Development for Doctoral Researchers

In addition to conceptual models for researcher identity development, the 'research into practice' and action research literature has offered us multiple perspectives and insight into the doctoral experience. This includes the successes and limitations of engaging all doctoral researchers with 'skills training' and the challenges of developing researchers for a range of possible future professional selves. Not surprisingly, given our earlier discussions about personalised learning, and the need for development that is relevant to individual situations, we have not seen the emergence of a training programme that works for every doctoral researcher, every time. These recent shifts in the understanding of the experiences of researchers have moved researcher developers into a new way of thinking about the development experiences and spaces they create and command.

One question that is worthy of attention is—how the identity-trajectory model can be useful in researcher development instead of merely assuming that all doctoral researchers are apprentice academics. Thinking pragmatically, this involves asking how to make personalised learning work at scale and in a way that is inclusive to every doctoral researcher. And so, as researcher developers tune in to the value of the hidden curriculum, they enjoy a reduction in the deficit-model skills training ideas initiated by the Roberts report and associated funding (2002). Researcher development professionals instead place a greater emphasis on learning designs that utilise groups and clubs, peer networks, mentoring and coaching, and other relationship-based and network-based approaches that tap into hidden curriculum learning. In this connection, we will present a series of ideas and examples that align with these blended approaches—many of them can be adopted and adapted for working with doctoral researchers' development.

We offer the following ideas and invite the readers to recognise the value of the hidden curriculum when designing or implementing the learning experiences for doctoral researchers. Since you are likely to be reading this as a doctoral researcher yourself (or perhaps as a helpful post-doc, a keen supervisor, a postgraduate research or doctoral tutor, or anyone else who would like to be able to help support doctoral researchers), we offer ideas that do not require a budget or institutional decision-making power before you can get started with them. The list is neither exhaustive nor prescriptive, so feel free to use these ideas as starting points for your own creative approaches.

The Hidden Curriculum of Attending 'Training and Development'

As we pointed out in Chap. 5, accessing the hidden curriculum and engaging with other learning and development spaces need not be seen as something that is antagonistic or oppositional to the guidance of the supervisor or supervisory team, or to the expected progress and milestones of the doctorate. Through the detailed examples and researcher voices we have shared, we endeavoured to illustrate how doctoral researchers can draw on and combine sources of formal and hidden learning to great effect—increasing productivity as well as wellbeing and making use of peer conversations as a catalyst for improving the supervisory relationship.

Perhaps, it is also via using a peer coaching session to understand the unwritten rules or the grey areas of their disciplinary conventions, through seeking specialist input from a colleague with a specific skill set or prior experience, or even using their yoga sessions to reflect on being mindful of the difference between pain and discomfort when trying out new things. Used in tandem, the hidden curriculum complements the formal, and vice versa. The knack is to help doctoral researchers to see the learning they can use in every experience and avoid the comfort zone of familiarity where no new learning is taking place.

We fully understand the difficulty doctoral researchers face in trying to reconcile timely completion of the research project with enjoying the freedom to explore and engage more widely in the rich opportunities available. Recent changes for research council-funded doctorates in the UK and in Australia mean that several funders now expect submission of the doctoral thesis within the funded period, usually three and a half years. The possibility of funding sanctions being imposed at the university level for non-compliance with this new stipulation means that top-down policies and processes are likely to cause more concern for doctoral researchers about finishing within the time limit.

Reflecting on development activities that are needed and/or relevant, it is therefore wise to understand what is really on offer in the training room, community garden, or even online spaces. Four points drawn from Guccione and Bryan's (2018) blog post are presented here as an illustration of how doctoral researchers can view the value of the hidden curriculum and manage expectations with supervisor(s):

- Agree what's reasonable so assumptions are not being made about how much is too much or what type of activity constitutes the 'right

type' of learning. Discuss what time proportion should be spent on developing you as a person beyond the immediate needs of your project.

- Define your actual learning needs and choose opportunities to match them, rather than simply collecting courses or certificates. In all universities there is too much on offer for one person to do. Doctoral researchers are not expected to engage with everything, just what they need. Using the personal development plan in Chap. 4 is a good starting point.
- Does the learning you need have to be delivered through a course? Throughout this book, we advocate that much of professional learning occurs outside training courses or classroom-based events. It is then worth reflecting:
  – What are the informal learning opportunities you have around you in your group? Department or Graduate School?
  – Who are your role models?
  – Which of your peers could offer you some advice or guidance? For example, can a colleague recommend an online resource?
  – And if you do need to take time out to engage with formal learning, who is likely to give you a recommendation so you do not waste your time, energy, or money?
- Remember that doctoral researchers, like all of us, attend professional development events to meet new people as well as to learn about the subject itself, or to discuss the items on the agenda. In coming together with new people, we gain the opportunity to compare our experiences with others. As a result, we come to a better understanding of the 'norms' of the research culture—whether our experiences fit or are exceptional.

Sometimes we attend workshops, networks, clubs, or events because that is where we feel listened to and valued. If so, how can the value of building these new networks be maximised by keeping in touch and keeping the conversation going?

Coaching and Mentoring Doctoral Researchers

Many universities and researcher developers have realised the value of offering coaching sessions, or a mentor, to doctoral researchers who run into doubts and difficulties. Developers in general are using a more facilitative, coaching style through both one-to-one time with researchers and in classroom-based sessions, where plenty of time is built in for personal

reflection, planning, and goal setting. As an example, refer back to the introduction session in Chap. 4. Programmes of coaching and mentoring are being creatively built and deployed by researcher developers across the sector, effecting great personal learning for researchers. Even the most dry and didactic subject matter, traditionally delivered as lecture-style 'training', can be enhanced by enabling researchers to take part in the session, to discuss and make sense of the new information received—encouraging them to find the best way of applying what they learned.

It is worth noting that both mentoring and coaching are specialist educational practices, set within the context of particular relationship dynamics. A key pillar of coaching is that the coach has no stake in the coachee's decision-making and instead acts as a relatively neutral sounding board. Buying in coaching, from a professional practitioner can be costly and so, many universities argue that this is unnecessary and unwise use of funds. An alternative viewpoint is for supervisors to cover that need as they themselves are likely to have the skills to encourage reflection and sense-making in their researchers. However, while supervisors are encouraged to take 'a mentoring approach' or to be 'coach-like' in what they do and say within the supervision partnership, due to their close (and not neutral) relationship with the doctoral researchers, they are not best placed to provide coaching. Both the hierarchical relationship between supervisors and their doctoral researchers and the power dynamic inherent in that relationship limit the effectiveness of a coaching conversation.

When Godskesen and Kobayashi (2016) examined the impact of up to eight individual coaching sessions for doctoral researchers' professional lives, the findings suggest that coaching helps doctoral researchers in getting 'back on track'. Participants gained a sense that they were making progress, and more importantly, some even aborted their thoughts about quitting their doctorates. They also reported how doctoral researchers tend to use their supervisors and a coach for different things. Whereas doctoral researchers tend to discuss matters related to the academic subject or discipline with the supervisor, they often use the coaching sessions for discussing such issues as time management or personal, emotional, or relational matters, including relationship with their supervisor.

This study endorses how coaching sessions can improve supervisory relationships. For example, an independently positioned coach or mentor provides tools for evaluating supervisory relationships and planning for improvement. Arguably, the mere creation of a reflective space, free from power relations, can immensely help doctoral researchers to take a fresh look at their supervisory relationship. This technique is seemingly effective

because taking a meta-view of oneself and the context, and realising one's own share in the problems, is the first step in addressing and acting on problems to productively move forward. What is demonstrated here is not that coaching and supervision are in tension, but complementary approaches do work, as each provides what the other cannot, and in turn, strengthen relationships, as intended.

Based on their study, Godskesen and Kobayashi (2016) raise the importance of having a coach who is external to the university for various reasons. They do not have an agenda in the decisions that the doctoral researchers make. They have no particular interest in the research or the results, and likewise, they have no vested interest in whether the doctoral researcher decides to complete or to quit. While this external arrangement is not feasible for all universities as it is unlikely to be affordable on a large scale, there is something to be learned about the power of different partnerships for different purposes.

What might be possible is to support researchers by enabling learning using relationships with a flattened power differential—something that can be applied through more scalable in-house initiatives. What follows is a number of creative initiatives that take dialogic, discursive, mentoring, or coach-like approaches. Linking this to the ideas inherent in the hidden curriculum, we begin seeing the richness to be gained through mentoring relationships with others in the university environment. Coaching or mentoring practices can be an effective mechanism for facilitating the flow of learning from the wider community to the developing doctoral researcher, enhancing the gains to be made from accessing the hidden curriculum.

Harnessing the Hidden Curriculum Through Dialogic Initiatives

Below are a number of well-tested examples of creative ways in promoting a learning dialogue via the hidden curriculum towards building doctoral researchers' 'conscious competence' in research practices and navigating research cultures. These examples have been specifically selected for six reasons:

(a) They do not require any specialist training to get started with.
(b) They can be offered without requiring funding.
(c) They do not require the hire or purchase of specialist equipment or software.
(d) They can be led by any interested person and in any role.

(e) They can be easily adapted for off campus or remotely located doctoral researchers using video-conferencing tools or online platforms.

(f) They are of value to researchers from any discipline.

Although the primary focus is on doctoral researchers, there is no reason why the offer cannot be extended to postdoctoral researcher or other staff members as these initiatives are likely to bring considerable value to the learning dialogue that consequently occurs. These initiatives, and many more, are being gathered from doctoral learning communities across the world and are posted in more detail on our designated Hidden Curriculum blog: drhiddencurriculum.wordpress.com.

Visual Expression of Transitions to Doctoral Studies

Photo-elicitation, using photographs to prompt self-evaluation and creative thinking (Harper, 2002), can be used as a way to pictorially represent and reflect on transitions to doctoral study. General use of images and photos (see Chap. 4) can stimulate deep reflection. As most people will have access to a smartphone or digital camera, photos snapped on a portable device can support reflection on the doctoral journey in a way that is reflective, accessible, and engaging. A free community space such as a social media group or page, a WhatsApp group, or a free app such as Slack, Trello, or Padlet can support sharing, commenting, replies, and other forms of feedback that enable learning through the hidden curriculum. Over a set period of, for example, a week, a month, or several months, doctoral researchers can post photos to a shared pace, titling or captioning them. To encourage sustained participation, pre-set transitionally relevant themes can be issues, for example, 'sticking point', 'expectations', or 'misunderstood'. By supporting each other to explain their choices of image, this encourages sense-making for our doctoral researchers, in a way that externalises issues or struggles. One idea is to enhance this offer by providing training in photographic techniques; it is important to note though that the artistic quality of the photo is not as important as the quality of the reflection, the latter matters much more (Fig. 6.1).

Doctoral Peer Mentoring

Much of the community support and shared learning ideas on the different educational concepts covered through Chaps. 4, 5, and 6 can be delivered on a one-to-one basis as well as in small or large groups or through
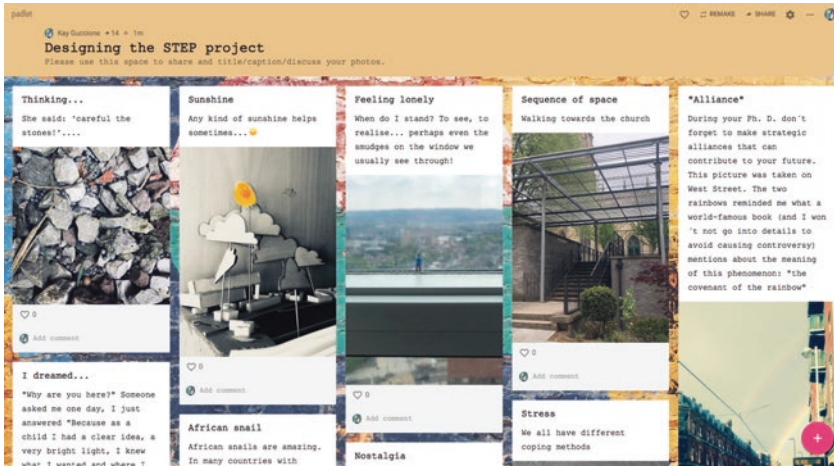
Fig. 6.1 The Student Transitions through Engaging with Photography (STEP) project (Blackmore & Guccione, 2018). (*This is a screenshot of a Padlet.com board showing week one of a photo-elicitation project supporting transitions to doctoral study.*)

cohorts, clubs, or teams. Peer-to-peer mentoring models can provide good longitudinal support for engaged researchers (Gregoric & Wilson, 2015), and peer mentoring is often an obvious choice for those seeking to broaden the support base for new doctoral researchers. Pairing up new researchers with second or third years, or even postdocs, seems simple, but an important note of caution is to agree the expectations of what peer mentoring can and cannot achieve up front. It is always wise to avoid the role of peer mentor becoming inappropriately burdening or being seen as a substitute supervisor. Mentoring is flexible, personalised learning and can be accessed face-to-face or via Skype, phone, or even by email or text.

Thesis Mentoring

A thesis mentor is any neutral third party who is prepared to spend some focused time with a doctoral thesis writer to offer specific forms of support, including:

  (a) helping doctoral researchers to unpick what needs to be done;
  (b) to track how they are doing;

(c) to identify when they have become stuck and how to move forward again;

(d) how to start writing;

(e) how to keep writing; and

(f) how to stop writing.

While some universities have organised programmes that facilitate mentor-mentee matching, not all offer this service. Although it may take a bit more effort, it is possible to recruit one's own mentor and to support doctoral researchers in approaching a potential mentor. A good choice for a thesis mentor is a postdoctoral researcher, who is not too close to the doctoral researcher's own discipline area. Choosing someone who is a step removed from the field helps mentoring pairs to resist the temptation to talk about their mutual love (or hate) of the research topic, rather than sticking firmly to discussing writing habits, patterns, and progress. Having support for both research project work (i.e. supervisor) and for writing habits and rhythm (i.e. mentor) creates a complementary approach and weaving formal and hidden curricula together effectively, so to speak. This also helps avoid any conflicting research project advice from mentor and supervisor. Since department doctoral administrators or researcher developers tend to know a lot of research staff members, they may be able to help recommend potential mentors. See Box 6.1 for an email template that can be adapted to support researchers to approach a mentor, if this practice is encouraged and supported in your institution.

Shared Experience Networks

Pulling together networks of researchers who share a common research or methodological interest is good and commonplace practice, and there is a great amount of value coursing through networks, mailing lists, and groups that support research work. A complementary addition is to consider forming networks for researchers who have shared experiences as well as shared interests. Some examples of this are networks for LGBTQ+ STEM https://lgbtstem.wordpress.com, PhD Women @PhDWomenScot on Twitter, disabled and chronically ill doctoral researchers, researchers who are parents, and researchers working on sensitive, upsetting, or traumatic research topics or materials (which requires significant emotional work to navigate). The last three examples are drawn from ongoing network-building initiatives as exemplified here: https://thinkaheadsheffield.wordpress.com/2018/05/10/launching-the-parent-pgr-network/.

Box 6.1   A Template Email for Recruiting a Thesis Mentor
Dear [mentor of choice],

My name is [name], I am a doctoral researcher supervised by [supervisor] and I am writing my thesis currently, my deadline is [deadline].

Our colleague [name] has suggested you as I thought you might be a person who would be good at, and could be interested in, doing some 'thesis mentoring' work with me over the next few weeks. I thought I'd approach you to see if you are interested and tell you a bit more about what I am looking for.

I foresee mentoring being for about an hour every fortnight, and giving me the benefit of checking in, being accountable for my progress, and setting myself some targets for my writing.

I am *not* looking for any specialist advice, or for you to know all the answers, or for a replacement supervisor. I would like a mentor who simply listens to me talk through what I am planning to do, so I can put together a plan of action that works for me. Of course sharing any tips you have from your own experience would be welcome. I would not expect you to proofread my work or guide me on the content of my thesis.

What do you think? Could we meet in [a public place]/chat on the phone/Skype and see if this is something that we'd like to do?

With thanks

[your name]

∗Please be respectful if your chosen mentor says no. Early career staff, particularly women, are often asked to contribute this type of teaching as 'gift labour' which is unpaid extra work.

Through the lenses of shared experiences, researchers come together to support each other as they navigate their doctoral programmes and the challenges that may arise. This may take the form of face-to-face, online, and email conversations sharing knowledge, resources, and ideas, requesting information, producing shared guidance, or collectively pressing for change. To set up a similar network, it starts by deciding on a theme and openly and inclusively (giving the option to comment anonymously in the first instance) consulting researchers about their experiences in order to co-design the network. Some prompt questions to consider are:

(a) What are the issues?
(b) What is working well?
(c) What needs to change?
(d) Whose help do you need?
(e) How would the ideal network help you to thrive?

This information can be used to set the 'Terms of Reference' for your doctoral group to help ensure its remit and ways of working are agreed. An ideal way to begin to gather support and resources is to communicate your Terms of Reference to university teams and services (e.g. student services, counselling, and disability services) who may have a shared interest and partner with them to share information and/or ask further questions. You may also consider connecting to any staff support networks who have similar interests, for example, staff who are parents and staff who are disabled.

Writing Retreats

Whether you favour the Pomodoro Technique, the Shut Up and Write mode, Thesis Boot Camp (Freestone, Firth, & Connell, 2014), the Murray and Newton (2009) Writing Retreat model, or Silvia's (2007) Writing Club approach, writing together in a social space is regarded as beneficial for productivity as well as social support. All that is needed is to form a group and book a room. A 'retreat' in this context just means a space away from your normal workplace. It could be a lecture theatre or seminar room, a library, or café. Equally, it is possible to run this model via webinar. As participants write together, they also set and review writing goals together, and they take breaks together. More importantly, they keep each other on track by being accountable and learning from each other. Although often unrecognised, these social writing spaces strongly promote hidden curriculum-based lessons about persistence, avoiding distractions, self-motivation, and how to build up effective writing practices. Ensuring that breaks are part of the planning is crucial because it is easy to end up doing a long and tiring session, which then lead to participants taking a recovery day (even week) rather than building effective writing habits. Secondly, it is good to leave writing on a roll. It simply means that we want to come back to the work sooner rather than later, and enjoyment is the biggest motivator! Engaging writers by having a theme can add some fun, for example, running a 'Corrections Club' for anyone working on supervisor's feedback, thesis examiner corrections, or peer review to deal with.

Creative Writing and the Journal of Imaginary Research

The open access online 'Journal of Imaginary Research' publishes fictional abstracts and fictional researcher biographies. The journal started out as a way to encourage doctoral researchers to write simply for enjoyment. We spend a lot of time trying to reduce our and our fellow researchers' anxiety about writing, so writing just for fun is a good way to reshape our relationship with writing into something enjoyable. Secondly, writing fiction in a familiar academic format helps us to reflect on how we can creatively communicate real research projects and how we can find the joy of creativity within the grind of productivity. Any researcher can submit their imagined research piece, and to accompany the journal, the series editors (Dr Matt Cheeseman and Dr Kay Guccione) have created an open access, video workshop to help researchers to develop their creativity (see https://journalofimaginaryresearch.home.blog/workshop-writing-without-discipline/). This video workshop and accompanying Facilitator Pack can be downloaded. The resources are Creative Commons licenced, and so may be adapted for use on- and offline, as per the needs of the participants.

Backstage Seminars

A departmental series of 'backstage seminars', delivered by senior faculty members, can create opportunities for doctoral researchers to interact with the academic staff members of their department who are not part of their supervisory or advisory team. The faculty presentations focus on particular situations from their own work—methods, data, dilemmas, analysis, and so on—and are used as an introduction to their research field. The presentations avoid a smooth 'front of stage' presentation of research where doubts, obstacles, and mistakes are often removed. Instead, they offer the participants a backstage view of the research practice with all its messiness, its ambiguities, and decision-making. In this way, doctoral researchers are introduced to the difficulties of different research practices within the fields represented. They also gain the opportunity to discuss the difficulties of their own doctoral research projects with these senior staff and/or with other doctoral researchers.

Amateur Journal Club

A journal club is a group of individuals who meet regularly to evaluate critically recent articles in their research field. Typically, each participant

reads the journal in detail and then shares an expert view on the validity or limitations of the article. This can prove difficult to engage with for doctoral researchers who are still learning the conventions of doing and reporting research in their field. While recognising the considerable learning to be gained via the hidden curriculum through hearing others' critiques, being part of a club itself supports the development of researchers' more active approach to participation. An *Amateur* journal club only needs a small group of researchers, who share an interest in a broadly similar research field. It focuses not on detailed critique, but on cascading literature searches between peers, and sharing their growing understanding of the literature, and the thought processes behind that.

Researchers prepare for the Amateur journal club first by reading an article, perhaps a recently published article they are all keen to read, or a seminal paper that they all need to understand in the course of their research. They then take turns giving a five-minute informal summary of the paper, including the primary 'take home message' that applies to their own project. The emphasis here is that they do not need to explain or critique the article from a position of expertise, they just share their own understanding. After comparing and noting their interpretations, similarities, and differences, they each individually choose a follow-up article, related to the first, and usually cited by the author(s) from the first paper. They each read their chosen article and collaborate on a shared document (online or email), providing summaries of each of their chosen articles in which they must recommend or not recommend it to the other individual group members. This provides effective platforms for applying criticality, based on their peer's research areas of interest, and the 'take home messages' they identified from the original paper.

'Coffee and Cake' Mentoring

This initiative aims to address the hidden curriculum of 'becoming an academic', enabling career conversations informally in a social setting. Choosing an off-campus, inclusive setting, for example, over coffee and cake (only one of many options), aims to diminish the relative power differential between academic staff and doctoral researcher. This approach works better when employed with some mentoring principles, for example, asking questions in preference to giving advice and allowing doctoral researchers to find their own best way forward. As such the choice of mentors should be selective, preferring academic staff who have good

mentoring skills and are willing to forego control of the outcomes of the conversations and/or of the researchers' career plans. In our model a small group mentoring is favoured as it can easily encourage cross-sharing of experiences and support development, for example, two academics to three doctoral researchers in groups that rotate every 20 minutes (see Ellis & Guccione, 2018).

Three principles are to be borne in mind when arranging groups and supporting discussions:

(a) The academic should not be part of the supervisory team.
(b) The conversation remains confidential (participants sign up to this shared understanding).
(c) Topics can cover personal and professional elements, within the comfort limits of the groups.

Doctoral researchers who took part in the scheme value the opportunity to discuss subjects that they would not necessarily feel comfortable talking about with their supervisor(s), for example:

• How long does it take to get a permanent job?
• How do you get your first book contract?
• What happens if I cannot or do not want to turn my thesis into a book?
• How do academics juggle teaching, research, and administration?
• How many conferences should you go to per year?
• Does writing ever get easier?

A Doctoral Blog

There are many individual blogs in existence that give voice to the doctoral experience. Digital blogging technologies have the capacity to support an individual's varied modes of reflexivity and sense-making (Rainford, 2016) and can support the 'low-pressure' writing out of ideas and interpretations, and the development of the researcher's authorial voice. With hidden curriculum in mind, we advocate here for a community blog, a multi-authored informal, creative, and supportive initiative that is written by and for doctoral researchers. This example of good practice primarily intends to support doctoral researchers as they share information, insight, and strategies openly, as well as learn from each other as they navigate their personal and academic life.

On this example, https://uofgpgrblog.com/ blog topics may fall within: 'Getting Started' concerning transition into doctoral level study, 'PGR Admin' to help others to understand the various mandatory doctoral tasks, or 'PGR Experiences', which features doctoral researchers' first-hand experience on a variety of topics (offering unique insights to inspire, sharing ideas and views including their fears and doubts, or simply encouraging others who might be in a similar situation). As well as being a source of learning in itself, the blog signposts other ways to access further the hidden curriculum. Particularly of value to doctoral researchers who may be located on the periphery of university life, either blog reading or blog writing enables them to participate digitally in an academic space and, in turn, engage with both formal and hidden curricula. It has been argued that even microblogging forms such as Twitter can help part-time doctoral researchers be part of the research community within their university and the wider community (Vigurs, 2016).

Post-PhD Profiles

Most doctoral graduates move happily into roles across varied employers and sectors, with only around 10% of UK graduates in the sciences (up to 40% in the arts) remaining in academic positions (Mellors-Bourne, Metcalfe, & Pollard, 2013; Royal Society, 2010). Enabling doctoral researchers to develop professional understanding and repertoires can help them make an informed choice as well as increase their chances of achieving their career aspirations across a range of options. A blog (or web) series of career profiles, written by doctoral graduates (e.g. accessible via alumni networks) who successfully navigated their way into varied roles and sectors, can provide a lasting and growing resource that enables current doctoral researchers to learn via the hidden curriculum concerning career transitions. Translating doctoral skills into new contexts is then achieved through reading in-depth career stories which share the first-hand, often emotional, experiences of transitioning into new workplace structures and cultures. An example of such a collection is here: https://thinkaheadsheffield.wordpress.com/category/careers-beyond-academia-sheffvista/.

Community Gardening

This is a shared growing space that brings together a group of 'green-fingered' doctoral researchers and which can be placed anywhere conveniently located for the group who want to plan, manage, and maintain it. The researchers must work together to share the work as well as the highs and lows as growing projects are seeded, tended, and finally, very literally come to fruition. Being involved also means getting to know and lunching with other gardeners, pursuing areas of interest, and enhancing a shared interest. While the doctoral gardeners enjoy the bountiful produce—from apples to lettuces, to basil, in a space where they can relax and step away from their work and experience a bit of fun and relaxation—they are also sharing their stories and experiences, developing and sharing a hidden curriculum that might also draw upon metaphors of growth, patient nurturing, unpredictable weather, and seasonal change. A brilliant example of this scheme is featured in this video: https://www.youtube.com/watch?v=U14R0RxbvVk.

Worry Club: Getting Fears Out in the Open

Those who develop doctoral researchers will be aware that issues are commonly brought up during the supportive and reflective safety of research workshops and training sessions. The matters that arise often concern the hidden side of the curriculum, for example, time constraints, requirements for publishing and what constitutes publishable data, supervisory relationships, stress concerns, losing motivation, and being 'off track'. In an attempt to address these common concerns, space has been created for these researchers enabling them to share and talk about their worries in a space camouflaged as a workshop. Participants are invited to write two worries related to their doctorate on separate Post-its, one to two words: visible and anonymous. They then collate the group's worries and collectively group the worries according to themes. Small groups work together to find ways to solve, manage, or allay the issues. Just sharing their worries and realising that they are not alone is part of dissolving tension. Participants report that this exercise is of great value in supporting them to take charge of their own doctoral journeys. Figure 6.2 illustrates major and minor themes over five years and can be used as a discussion tool to support doctoral researchers.

Fig. 6.2 Illustration of the worries that doctoral researchers express in the beginning of their studies. After collecting 'worries' over a four-year period, 21 themes were found and are illustrated in this tree graphic, with the personal worries in the roots and the more tangible, professional worries in branches and leaves

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The Hidden Curriculum and Wider Doctoral Learning Ecology

A 'Doctoral Learning Ecology Model'

Abstract Formal, informal, and non-formal domains of doctoral researchers' learning journeys are interlinked, but often institutionally unacknowledged and pedagogically unrecognised. Given the PhD's nature, various opportunities arise, for which a selective pursuit leads to unique experiential trajectories. A travel grant allows doctoral researchers to conduct research internationally, with subsequent impact on the disciplinary guidance received and by becoming part of a wider academic community. Likewise, changes in private life, for example, having a child, can affect their energy, focus, and momentum. Our proposed 'doctoral learning ecology model' helps illustrate interrelations among institutional, professional, societal, and doctoral researchers' private domains. We also discuss implications for supervisors, mentors, and Graduate Schools leaders as they provide effective support to maintain balance and creative synergy between these interlinked ecological domains.

Keywords Doctoral learning ecology • Interlinked learning domains • Unique experiential trajectory • (Un)conscious incompetence, competence • Implications, balance, synergy

What Is a Doctoral Learning Ecology?

The main idea behind the notion of doctoral ecologies is that the doctoral journey takes place within and across several domains of learning simultaneously. The main theoretical and conceptual inspiration comes from the work of Ronald Barnett (2018) on the ecological university. This concept on ecological university explains the ways knowledge creation, learning, and higher education curricula and institutions are typically embedded within a wider range of disciplinary, institutional, societal, political, and existential contexts. Parallel to this and in relation to doctoral education, we draw from the understanding of the doctorate as embedded within a range of 'nested contexts' and that the identity-trajectory of doctoral researchers needs to be understood as simultaneously belonging to several zones or domains of learning (McAlpine & Amundsen, 2016, 2018). In this chapter, our aim is to make these four main learning domains in doctoral education visible and tangible.

Firstly, the doctorate takes place within *the learning domain of the discipline*. Here, the doctoral researchers strive to acquire, let alone master, the fundamental and key theories and methods relevant to the field and research project more specifically. Learning within the disciplinary domain also includes developing and mastering one's own research practices and being able to present such practices through the genres, craftsmanship, and literacies of writing. Within the disciplinary domain, doctoral researchers generally find support in the disciplinary expertise and researcher experience of their senior colleagues as well as from peers. As the most typical 'port of call' for support is via doctoral supervision, the supervisory team provides feedback, raises ideas, and engages doctoral researchers in a constructive and critical learning dialogue around their research projects (Wisker, 2012).

Secondly, the doctorate takes place within *the learning domain of the institutional system and infrastructure*. Here, the doctoral researcher tries to become aware of the accepted rules and regulations of the local Graduate School. This commonly includes thesis formats (e.g. monograph, article-based thesis), lengths, range, and scope. There may also be a requirement from the Graduate School for doctoral researchers to undertake a certain number of training courses in research methodology and/or courses for developing transferable research skills and competences; this often depends on the host institution and country. Within this domain, doctoral researchers also become aware of various rules, for

example, when to apply for extra funding when participating in conferences, how much leave is available during and outside holiday periods, and regulations surrounding paternity and maternity leave, or sick leave. Typically, the go-to persons are doctoral administrators, PhD programme leaders, or postgraduate research directors.

Thirdly, the doctorate takes place within *the learning domain of the workplace culture*, sometimes referred to as the process of enculturation (Lee, 2012). In contrast to the progression of the formal learning in the two first domains, this domain covers the progression in the informal learning of doctoral students. Becoming part of a research team, programme, department, and faculty means becoming aware of certain, often tacit and implicit, social norms for how to behave, as well as cultural values concerning proper and improper collegial conduct. By becoming an active member of the community of practice (Wenger, 2008) for a group, unit, or department, doctoral researchers gain access to important networks, resources, and even mentors who could help them not only with respect to enhancing their knowledge of research but in furthering their career as well.

Finally, the doctorate takes place within *the learning domain of the personal and wider societal lifeworld* (Elliot, Baumfield, Reid, & Makara, 2016; Wisker, Robinson, & Bengtsen, 2017). Here, the doctoral researchers' concern is not necessarily directed towards the quality of the thesis and the rules and regulations of the Graduate School. It could be that some of their questions pertain to the personal (existential) meaning offered by the doctoral journey itself, and/or how to cope with and tackle the inevitable uncertainties and pressure following independent and demanding research processes. Within this domain, the doctoral researcher may strive to maintain a sustainable work-life balance and even sometimes manage to work part- or full-time on the side in another professional context. This domain circles around maintaining the personal integrity and authenticity when going through the doctorate and to be able to face challenges in the private and perhaps also societal life at the same time. This learning domain is also linked to doctoral researchers finding support and help from professional networks beyond the institution, for example, voluntary work contexts and interactions with family and friends.

The doctoral learning ecology can be modelled in a way presented in Fig. 7.1. In order to understand further how the concept of doctoral learning ecology may play out in practice, we will consider the following four short narratives as viewed from the doctoral researchers' perspectives.
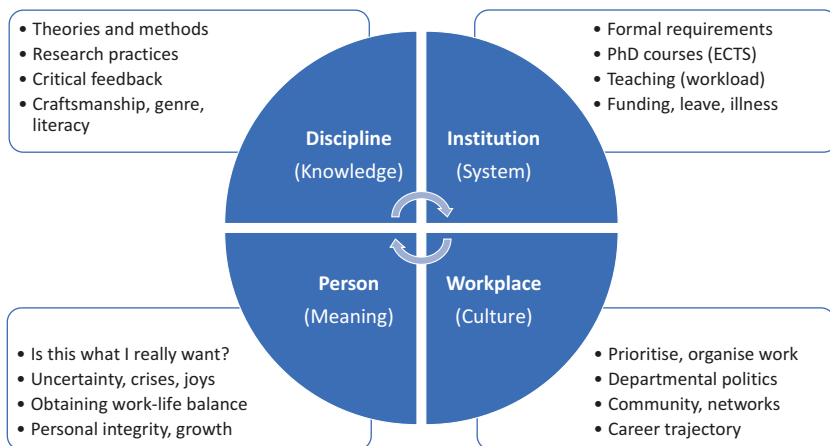
• Theories and methods
• Research practices
• Critical feedback
• Craftsmanship, genre, literacy

Discipline (Knowledge)

Institution (System)

• Formal requirements
• PhD courses (ECTS)
• Teaching (workload)
• Funding, leave, illness

Person (Meaning)

Workplace (Culture)

• Is this what I really want?
• Uncertainty, crises, joys
• Obtaining work-life balance
• Personal integrity, growth

• Prioritise, organise work
• Departmental politics
• Community, networks
• Career trajectory

Fig. 7.1   The doctoral learning ecology model

Scenario 1: The Disciplinary/Knowledge Context

Elizabeth was almost a year into her PhD but was still struggling with acquiring an in-depth understanding of some of the core concepts from the central theories she drew from. Despite reading widely and thoroughly into a comprehensive corpus of literature, she felt that the more she read, the harder it was for her to find her way into the theoretical landscape and to describe the concepts using her own voice. She kept saying to herself that if she could just read the texts one more time, all the pieces in the intellectual puzzle would fall into place. Both her supervisors had on many occasions suggested that she pause in her reading and start writing up instead; through the writing process, she may discover her way into theoretical semantics. However, it was not until her main supervisor set her the task of writing a short essay on two of the main concepts for the next supervision meeting that things changed. Elizabeth initially found writing her thoughts down in an academic form very hard and she came close to giving up the idea. After following her supervisor's advice to write 500 words every day for a week, to her delight she experienced a breakthrough on the third day. As she was writing, she suddenly found that her focus had been sharpened leading her to find her own words and enabled her to present her insight from the theories using her own voice. She started

spending more time writing than reading, formally and informally; slowly, and with certainty, she gradually developed her own, independent voice within the discipline.

Scenario 2: The Institutional/Systemic Context

John was planning his mandatory research stay abroad, which he had agreed with his supervisors would be well placed in the beginning of the second year of his PhD. However, he had also discovered (by chance) that apart from the travel expenses and the fee to the host institution, the Graduate School did not provide enough funding to pay for his accommodation during this period. Further, he had hoped that he could join one of the training programmes offered to the doctoral researchers at the host institution in order to meet the course credits (e.g. European Credit Transfer and Accumulation System) required by his own university. However, since it did not seem feasible that his own university would accept the training programmes offered by the foreign university, it meant that he would have to rearrange his plans concerning when to obtain the credits needed. This series of events had implications for his timeline as it would alter his plans for completing his data collection. John's supervisors were generally very supportive around disciplinary matters and were glad to help. However, the rules of the Graduate School had changed a lot since they did their own PhDs, and it was difficult for them to remember all the new procedures and technical steps. John decided to take ownership of the process himself by setting up meetings with the PhD Administration unit. He had always tried to avoid getting too entangled with them, as he could not see how they could assist him in his research. During these meetings, however, he realised that many doctoral researchers before him had gone through similar challenges. To his surprise, he received a lot of good advice from these very helpful administrative staff.

Scenario 3: The Workplace/Cultural Context

Henry was halfway through his doctorate but started to lose steam and interest in his own research into political cultures and identities. Despite being a talented researcher, jobs within academia were extremely limited and the few available jobs were either short-term or project-bound positions, often working for senior researchers outside his core interest. Also, he felt more and more distant from his surrounding workplace community

and almost none of his colleagues, previous professional networks, friends, or family seemed especially swayed or caught in by his main argument (which, he thought, was quite original and bold). Speaking to another doctoral researcher at a conference, however, changed his view on how to communicate and find new energy for his research. A fellow doctoral researcher related how she kept communicating her own research in political ontologies in various media ever since she started. She had written newspaper columns, online blog posts, open access journals and essays, and social media posts, and over the last two years, she managed to build up strong and greatly diverse professional networks. She then received several job offers from companies and organisations she never thought would be interested in political philosophy. Now, she is convinced that her highly specialised research really touched people and could change societal and political agendas in the future.

Scenario 4: The Person/Lifeworld Context

Lea gave birth to a son, Jonas, two years into her doctorate. She has now been on maternity leave for ten months and is about to start up on her doctoral project again. Jonas has started going to a nursery four to five hours a day but he is often ill with the typical illnesses very young children get when starting in nurseries or day care institutions. Her partner is very supportive, and they share parenting responsibilities by taking turns staying at home when Jonas is ill. However, the situation made it difficult for Lea to maintain focus and momentum in her research. Her fellow doctoral researchers from the peer group she was a part of before going on leave have now all completed or are in the very final phase of writing up and have little opportunity to meet up. She feels a bit distant with a slight alienation towards her own research project after having been away for so long. Her supervisors seem to struggle as well with getting back into the loop of her thinking, even though they do what they can to support and help Lea with regaining a firm grasp on the structure and focus of the thesis. Fortunately, while she has been away on leave, a new postdoc, Sandra, has been employed at the same department—someone who has recently gone through a very similar situation a year ago, during the time she herself was completing her own thesis following maternity leave. Sandra was able, in ways her own supervisors and peers have not, to provide Lea with very specific advice on how to pick up the research focus and common thread of the main argument little by little. Additionally, Sandra

was able to offer suggestions how Lea could possibly balance completing her doctoral research against maintaining work-life balance for her family's sake.

How Do the Four Domains of the Doctoral Ecology Model Intersect and Influence Each Other in Doctoral Education Practice?

In the learning journeys of doctoral researchers, the four ecological domains are experienced as separate, but overlapping, with no direct causalities, but with a high degree of interference. This means that the four domains are not necessarily aligned or speak directly into each other; nevertheless, they are likely to influence each other's operation and function. In relation to supervision practice, this has been cast in the terminology of a 'professional work' (Halse & Malfroy, 2010), 'nested contexts' (McAlpine & Norton, 2006), and 'embedded pedagogy' (Bengtsen, 2016). To illustrate, when a doctoral researcher plans to go on a research stay abroad as part of the requirements of the local Graduate School (*institutional domain*), it affects the researcher's family (partner, especially with small children) and professional workplace, if also working (*personal domain*). Finding accommodation for not just yourself but for your family as well may be difficult (and expensive!). Likewise, your partner may not be able to take leave for several months from the workplace. On top of this, the practicalities and demands in a foreign institutional, national, and cultural setting may mean that during the research stay, the doctoral researcher could lose contact, alignment, and important feedback from the supervisors, peer group, and research team back home for several months (*disciplinary domain*).

In a similar way, the interference between the domains may also work in reverse. As Hopwood and his research team argue (Hopwood, Alexander, Harris-Huemmert, McAlpine, & Wagstaff, 2011), many doctoral researchers undertake the PhD in a period of their life where they also form long-lasting relationships, perhaps having small children of their own, and where some get married, others get divorced, and perhaps have elderly parents to care for. These 'hidden lives' (ibid.) of doctoral researchers are not always visible and known to supervisors and programme directors, but they can certainly explain some of the exhaustion, anxiety, and stress that many doctoral researchers experience. Not to say that difficulties and challenges in the research can be explained away by the wider

lifeworld contexts, but the research process (*disciplinary domain*) certainly is vulnerable to impairment, stagnation, and loss of momentum through the researcher's personal circumstances (*personal domain*).

Mentoring by senior academics (*cultural domain*) or by more experienced doctoral researchers or postdocs may influence the doctoral researcher's engagement in the educational programmes in her department (*institutional domain*) as well as access to job opportunities after the doctorate (*personal domain*). Increasingly, to get a postdoc position, a lectureship, or an assistant professorship, it is deemed advantageous to have published journal articles during the course of doctoral education, just as it is beneficial to have developed a solid teaching profile by teaching Bachelor- and Master-level courses. Many supervisors, or 'guardian supervisors' who become mentors to doctoral researchers (Wisker et al., 2017), advise them to build up a robust academic profile in addition to working specifically on the doctoral research project. Although guiding and supporting the doctoral researcher on career-related opportunities and other related decisions is not specifically related to the research project or focus (*disciplinary domain*) and is not a Graduate School requirement (*institutional domain*) either, it often becomes part of the academic workplace culture and community of practice (*cultural domain*). This explains the argument that being a doctoral researcher also means 'becoming an academic' (McAlpine & Åkerlind, 2010) in a wider sense and developing a professional profile that may match what might be tacit and implicit expectations and requirements of universities in many countries, or of the employers in professional contexts outside the university.

(Un)Conscious (In)Competences as a Framework for Conceptualising Support Within the Doctoral Ecology

In the following section, we will endeavour to connect the doctoral ecology model to the overarching framework relating to the (un)conscious (in)competences presented in Chap. 1 of the book. Doing so enables us to see that all four strands of (un)conscious (in)competences are potentially at work within each ecological domain. First, we describe possible and generic forms of unconscious and conscious incompetence; this is then followed by a description of possible generic forms of unconscious and conscious competence within the four ecological domains of the doctoral learning journey.

(Un)Conscious Incompetence

In the *disciplinary/knowledge domain*, unconscious incompetence may include the often tacit and implicit assessment criteria interwoven into the fabric of disciplinary practices and assessment genres. Often, doctoral supervisors and Graduate Schools do not, and maybe cannot or perhaps even should not, make such criteria explicit, and so, many doctoral researchers tend to be unsure of what their thesis is measured against. Once this becomes a conscious incompetence, doctoral researchers may address and discuss this with their supervisors and peers and may try and navigate using role model examples, for example, earlier successful theses within their field or discipline. Conscious incompetence within the disciplinary domain may include the research and genre competences and requirements that doctoral researchers typically face and discuss with their supervisors. Doctoral researchers usually become aware of the challenges related to literature searches, writing a literature review, designing a research study, structuring the thesis process, and understanding and operating core theories and concepts, among other things. In relation to the disciplinary context, receiving help and support on the conscious incompetence during the doctorate is usually possible to a relatively large extent, via supervision as it is the main formalised form of support and feedback integrated into doctoral studies. As we discussed in Chap. 1, this may also explain why the move from unconscious to conscious incompetence can cause potential tension between supervisor and supervisee.

In the *institutional/systemic domain*, unconscious incompetence may include doctoral researchers (and their supervisors) being unaware of Graduate School rules and regulations pertaining to technical matters about word length and preferred referencing style for the doctoral thesis or required level of acceptance for papers included into an article-based thesis. It may also include knowledge of required obligatory courses or training modules, or the requirements of the assessment panel members or assessment procedures during the entire doctoral study. In the institutional domain, conscious incompetence may likewise include uncertainty and insecurity about procedures for application for further funding, for example, study stays abroad and conference participation. Often, doctoral researchers realise their lack of knowledge of the institutional procedures when they find themselves needing to organise maternity and paternity leaves, or how to receive salary or financial support from their union during sickness and sabbatical leave. It may even be hard to identify the right

persons in the department or Graduate School who can assist in these matters to get a timely and comprehensive response; completing such forms with the right guidelines may sometimes be a challenge in itself.

In the *workplace/cultural domain*, unconscious incompetence may include doctoral researchers (and their supervisors) being unaware of the importance of developing a career track and strong networks parallel to carrying out the research project while writing up the thesis. Such activities may include publishing papers beyond the thesis, presenting papers and building (inter)national networks at conferences and research seminars, participating in peer groups and journal clubs, and developing and sustaining important contacts and collaboration with external partners both in professional and societal domains. Despite increased awareness of mentoring schemes and career guidance offered in universities, such initiatives are typically not formally integrated into the doctoral curriculum or institutional requirements. In the cultural domain, conscious incompetence may overlap with difficulties with writing into the academic, and specific disciplinary, genre, together with writing in one's second, or sometimes third, language. It may also include experiencing challenges in conference presentation and in teaching, which for many doctoral researchers is a new experience for which they are not always trained and supported.

In the *personal/lifeworld domain*, unconscious incompetence may include challenges in creating and maintaining a healthy work-life balance, so that the research project, stress, and uncertainties do not eat their way too much into the private sphere. It is not to say that doing a doctorate is similar to an average office job, where you leave your work in the afternoon and do not return to it until the next day. However, we see many reports of doctoral researchers having difficulties maintaining a constructive balance between research work, free time, and family time. Doctoral researchers' work can threaten to colonise other domains of the wider lifeworld arena and hinder a fuller development of significant other social and cultural identities. Such challenges may very well become conscious incompetence if partners, children, friends, or colleagues start confronting the doctoral researchers with issues of the research project consuming too much of their time outside the academic context. Many doctoral researchers certainly do become acutely aware of the difficulties of time and work management and may experience stress and anxiety. They may even be in need of support on coping strategies.

(Un)Conscious Competence

In the *disciplinary/knowledge domain*, unconscious competence may include the ability demonstrated by doctoral researchers very early on in their doctoral studies to organise research and doctoral work in general. This is not only about making plans and charts and following them, but also being able to demonstrate flexibility in reorganising parts of the research process or curricular activities, if needed. This ability involves thinking ahead and looking ahead and having the awareness that other factors in the research team, department, or wider institutional infrastructure, and even events and activities in their private life sphere, are impossible to predict fully, but this, nevertheless, requires to be taken into account in order to maintain momentum and motivation in the research. Other crucial competences include developed and highly proficient writing skills and an ability for critical and independent thinking. Such competences may become more apparent to already competent doctoral researchers, when they notice their peers experiencing difficulties in getting papers accepted for conferences and journals or receiving repetitious supervisor feedback to improve their writing, when they themselves managed to succeed on their first or second attempt. Doctoral researchers could enhance these competences as a result of the repetitive reminders received from supervisors, teachers, or fellow doctoral researchers. For some, their experience of undertaking a Master-level thesis was considered invaluable for developing these core doctoral competences.

In the *institutional/systemic domain*, unconscious competence may include doctoral researchers not only focusing on their individual research project, but those who simultaneously have an awareness of the institutional infrastructure enveloping parts of their doctoral studies. For example, this may include doctoral researchers planning their research work and activities around the doctoral courses, seminars, and workshops offered while also taking into account specific rules and regulations from the Graduate School. This assists these doctoral researchers in navigating more smoothly the wider institutional set-up. Additionally, this helps them access conference funding for research abroad or conference participation that other researchers may not be aware of. In addition to the practical and financial support, their knowledge of institutional infrastructure comes in very helpful in enabling these doctoral researchers to locate and access emotional or moral support provided by professional coaches, mentors, and counsellors who are employed in the organisation. Doctoral

researchers may become conscious of this competence when confronted by their supervisors or fellow doctoral researchers who may express irritation with the institutional complexities affecting overall research activities within the departments and/or research programmes. Similarly, as they listen to other doctoral researchers' difficulties in getting funding for their travels or experiencing a need for support that extends beyond supervision, such competences become conscious to the doctoral researcher.

In the *workplace/cultural domain*, unconscious competence may be described by some doctoral researchers, for example, who find teaching activity and/or supervising undergraduate or Master's students somewhat easy, fun, and inspiring. For these doctoral researchers, they do not consider teaching as a tedious task but another opportunity to learn and grow. Some doctoral researchers may even find themselves taking the initiative to organise research seminars, peer group meetings, academic writing sessions or events at the department—getting people to come, engage, and participate. Often, such activities and events are not mandatory to the doctoral requirements, but these doctoral researchers find it natural to extend their presence and energy into more informal and collegial spaces as well. Some of them may also have a similar ability in building networks not only at the home institution, in turn, they are rewarded with greater visibility on their academic endeavours—both at national and international levels. With increased knowledge, abilities, and networks, these doctoral researchers then continually draw from wider academic networks, which tend to generate more, varied, and diverse feedback on their research, including good advice on core conferences in their fields as well as academic journals to navigate. Their international networks may even lead to invitations to participation in research meetings or special interest groups abroad. Again, such competences typically become conscious to the doctoral researchers when their supervisors, peers, or other academics at their own department and/or from another university ask them to lead in organising academic activities and fora for knowledge sharing.

In the *personal/lifeworld domain*, unconscious competence may include doctoral researchers being able to balance and manage the intensity, time, and energy demands of the doctorate—and still having some time to pursue other interests and hobbies while maintaining important, formational contacts and relationships with professional partners, friends, and family. Some doctoral researchers are able to move between lifeworld domains without too much unwanted entanglement and complexity; they capably prioritise very sharply between such domains in a balanced and sustainable

manner. Further, some doctoral researchers have competences in communicating and sharing their insights, knowledge, and acquired practices with professional networks, on social media, and in wider societal and cultural contexts. In this way, the doctoral researcher experiences a deeper sense of existential meaning in undertaking the doctorate and in experiencing the wider connection and contribution among academic, professional, societal, and cultural contexts. Doctoral researchers may become conscious of these competences as they hear fellow doctoral researchers who relate symptoms of stress, conflicts with their colleagues in a professional context, or even conflicts with friends, partners, or families. In connection to the wider societal and cultural contexts, doctoral researchers also become conscious of these competences when meeting other doctoral researchers who feel demotivated and fatigued doing research. Demotivation comes from their perception that apart from themselves, no one cares about their research leading to not being able to see how conducting their doctoral research may propel them into new or more promising careers, particularly where pursuit of academic careers gets increasingly hard.

WHAT ARE THE FINAL KEY MESSAGES?

In this chapter, we discuss in great depth how what has often traditionally been conceived as an individual and supervisor-oriented learning journey during the PhD now emerges as a fuller and more comprehensive doctoral learning ecology. The doctorate cannot be limited to formal learning spaces within the disciplines and institutional frameworks of the Graduate Schools. The informal learning spaces and trajectories of academic formation and personal growth within workplace cultures and communities and within the wider personal and societal lifeworld domains are all crucial contributory factors towards constructive and rewarding learning journeys among doctoral researchers.

In this connection, we suggest the clear implications of the doctoral learning ecology model for several stakeholders:

That *doctoral researchers*, from the start of the doctorate, need to become aware of the expanded notion of their doctoral learning journey and what key domains have central influence on supporting their development into researchers and/or academics. While supervisors continue to serve as the most important form of support in ensuring the quality and progress of the research project and thesis writing, other forms of support

as well as other supporters and enablers likewise play crucial roles in the doctoral learning journey. It is pertinent that doctoral researchers become conscious of important feedback systems, support groups and networks, and roles of other academic staff beyond the supervisory team that may guide and advise them from within the institutional, cultural, and personal learning ecology domains. Further, it is critical that doctoral researchers become conscious of different forms of incompetence and competence within the four ecological domains—this, we argue, will serve as vital to further developing and harnessing appropriate elements of the hidden curriculum in doctoral education.

That *doctoral supervisors*, through meetings and conversations with their doctoral researchers, be more conscious of the wider need of support and guidance within the doctoral learning ecology; such need exceeds the disciplinary domain and often goes beyond the expertise and responsibilities of supervisors. Doctoral supervisors, however, do have a responsibility to try and guide, signpost, and advise their doctoral researchers how to access other support systems within the Graduate School, postgraduate research/PhD programme, department, or faculty. Due to their experience and often long-lasting membership of the local institution, doctoral supervisors usually have a wide institutional network with whom they consult and even seek help from as they aim to encourage, assist, and support their doctoral researchers in their pursuit of extracurricular activities designed to enrich their overall doctoral learning experience.

That Graduate School and Graduate Programme *directors and leaders* may set up support and feedback systems within the wider doctoral ecology that are semi-formalised and may be accessed easily by doctoral researchers. These could include weekly lunch meetings or peer groups meetings, monthly seminars, or journal clubs. All this as well as setting up other semi-formalised structure around peer groups or writing groups within specific discipline-related programmes allows greater interaction and learning beyond the learning domain of the discipline. Such ports of call, institutional networks, and academic support systems when made visible to all new doctoral researchers are very likely not merely to encourage but to impress on them from the beginning that they are a valuable part, not just of a small research team or unit, but of the larger institution, and beyond.

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The Hidden Curriculum: Educational Pillars for Doctoral Researchers' Meaningful Experience and Successful Completion

Abstract Through the lens of a doctoral learning ecology model, doctoral researchers can be expected to encounter four foundational needs within an expanded doctoral pedagogy. Each need arguably requires a specific mode of support. Firstly, doctoral researchers require professional support to help achieve the required academic quality of their work via written or oral feedback on draft chapters or papers. Doctoral researchers then need moral support as they gradually integrate themselves as members of the research community. The third need requires practical support in navigating the organisational complexity of the Graduate School system. Finally, doctoral researchers benefit from emotional support that is key in sustaining a healthy work-life balance, which entails integrating academic, professional, and personal identities and learning trajectories into a sustainable doctoral ecology.

An Expanded Doctoral Pedagogy

Where the previous chapter took the doctoral researchers' perspective and discussed the doctoral learning ecology, the present chapter will assume the perspective of the supervisors, academic leaders, and researcher developers and other supporters of doctoral researchers and the pedagogies involved. The idea behind the notion of an expanded doctoral pedagogy is that the doctoral learning ecology for doctoral researchers calls for not just one type of pedagogy, or educational support, but for a variety of different pedagogies—each relevant for the specific form of learning, development, and growth that doctoral researchers undergo. The main inspiration emanates from the work of Gina Wisker and her colleagues (Wisker, Exley, Antoniou, & Ridley, 2008) on the variety of different pedagogies core to supporting doctoral researchers' journey. Linking it to the work of Anne Lee (2012) on a holistic approach to doctoral pedagogy has inspired the term 'embedded pedagogy' (Bengtsen, 2016), which is further applied in a comprehensive and layered view to the learning support for doctoral researchers.

These works have been chosen as they recognise the roles of both formal and informal curricula. With an expanded doctoral pedagogy, the focus then goes beyond the formally assigned support, that is, doctoral supervision in meeting doctoral researchers' needs. In this connection, we recommend consideration for integrating four central pedagogies into the support framework generally offered by supervisors, academic leaders, and researcher developers when working with doctoral researchers.

Firstly, doctoral researchers need support on both the research process and the research project itself, or more specifically, disciplinary support and knowledge expertise. This form of support has been termed '**professional support**' (Cornér, Pyhältö, Peltonen, & Bengtsen, 2018), or 'informational support', and relates to the formally, institutionally, and disciplinarily acknowledged and recognised doctoral supervision. As professional support, it is central to providing input and feedback on the knowledge creation process, helping doctoral researchers to organise their research process and ensuring their progression in the formal learning trajectory.

The underlying educational goals include ensuring the quality of the research with a view to:

- encouraging and facilitating critical thinking;
- justifying the research methodology and demonstrating the validity/ credibility of knowledge created;
- supporting the writing of the thesis within the specific paradigmatic genre of scholarly writing and craftsmanship.

During supervision meetings, the doctoral supervisor and doctoral researcher typically discuss key concepts, theories, and methods of the research; through supervisor feedback, the main arguments of the thesis are then tested and carefully structured. Just as supervision facilitates the development of researcher competences, it also intends to aid the flow of the writing process (Taylor, Kiley, & Humphrey, 2017; Wisker, 2012).

Secondly, doctoral researchers need support on their development not only as researchers but also as academics more broadly, which includes becoming more or less integrated as part of a department (or an organisation) or a research team—and, thereby, also being integrated in the workplace setting that is characterised by an 'academic microculture' (Roxå & Marquis, 2019). This form of support has been termed '**moral support**' (Golde & Walker, 2006) and relates to enculturation, workplace learning, and progression in the informal aspects of learning. Despite lacking recognition (or formal assessment), this form of support is arguably essential to all doctoral researchers (Wisker, Robinson, & Bengtsen, 2017). Through the doctoral learning process, the underlying educational goals in doctoral researchers' journey entail identity development. Their aim is to assist doctoral researchers in finding and harnessing their own voices as independent and autonomous scholars in their respective fields. This may include career guidance—even how to shape an interesting and relevant institutional profile together with established wider networks within and beyond academia. This support is likened to providing a compass to doctoral researchers as they face some difficult choices, for example, prioritising between research and academic tasks, researcher integrity, or moral judgement-related issues.

Thirdly, doctoral researchers need to be supported as they try to navigate and endeavour to become part of a larger institutional system and infrastructure. With an increasingly centralised Graduate School, the systemic complexity often leads to an unexpected amount of '**practical support**' needed by doctoral researchers (Cornér et al., 2018). This includes becoming aware of, and familiar with, the rules and regulations of Graduate

study, for example, formal educational requirements (e.g. mandatory course participation and completion), funding opportunities, access to the right facilities for the research project, maternity and paternity leave, sick leave, and so on. Practical support also comprises the more functional and instrumental tasks of managing and administering the doctoral journey in an effective and efficient way with an eye on completion time and application to funding schemes (Eley & Murray, 2009; Lee, 2012).

The doctoral journey also takes place within an institutional context, with a systemic infrastructure, and within departmental politics that may need to be navigated, or simply avoided. Therefore, having a 'sponsor' in the organisation may mean having someone pointing the doctoral researcher (who might be coming from a different school or department) to the right people. A sponsor may act as the doctoral researcher's champion in the sense that the sponsor will know the right go-to persons and provide the needed diplomacy or muscle in order to tackle the sometimes hierarchical and bureaucratic institutional systems.

Finally, doctoral researchers need support on how to maintain momentum and energy in their doctoral journey, how to cope well in times of intellectual, and perhaps even existential, uncertainty and stress, as well as how to maintain a healthy work-life balance. This more personal and meaning-oriented form of support is sometimes termed '**emotional support**' (Cornér et al., 2018), which provides the right motivation and adequate encouragement. Emotional support focuses on how doctoral researchers qua individuals (or persons) are coping with the often demanding and multiple tasks and expectations that doctoral researchers need to meet from within the discipline, the academic culture, and the institutional system. Emotional support focuses on how being a doctoral researcher connects or disconnects with the other, and wider, personal identities, interests, and goals present in the doctoral researcher's wider lifeworld. This also involves supporting the doctoral researchers in realising their own agency and power to influence their doctoral journey and to take ownership of the process (Table 8.1).

In order to understand further how the doctoral support model may play out in practice, consider the following four short narratives. It is important to stress that we do not view all the pedagogical roles and responsibilities as belonging to doctoral supervisors. Doctoral supervisors are central actors but they cannot be assumed to bear the educational and pedagogical responsibility alone. They would benefit from help from

Table 8.1 The doctoral support model addressing the four foundational needs within the expanded doctoral pedagogy

Forms of support	Educational goals	Examples
Professional support Disciplinary expertise Organise research process Progression in formal learning	*Quality of research* Critical thinking Knowledge and methodology Dissertation and academic genre	• Discussing key concepts, methods • Testing argument and structure • Providing input on flow of writing, language
Moral support Enculturation Workplace learning Progression in informal learning	*Becoming an academic* Identity development (voice) Career guidance Moral compass (judgement, integrity)	• Finding own voice, what *you* want to say • Shaping a relevant profile, network building • Prioritising among tasks and offers
Practical support Rules and regulations of GS Formal educational requirements Funding and facilities	*Institutional infrastructure* Navigation in complexity Departmental politics Teaching opportunities	• Planning, managing, course participation • Go-to persons for funding, leave, illness • Institute hours, teaching opportunities
Emotional support Work-life balance Motivation and encouragement Identifying support systems	*Personal integrity* Managing and coping with uncertainty Keeping momentum Personal development and growth	• Listening to private life problems and joys • Talking about, and containing, uncertainty • Giving advice on how to deal with crisis

academic leaders, researcher developers, Graduate School administrators, and other supporters within the formal, informal, and hidden learning environments.

Scenario 1: Professional Support

Clara was supervising Michael, a very bright and engaged doctoral researcher who was almost a semester into his doctoral studies. Michael was regularly producing draft material for Clara to comment on, and even though Michael was good at reviewing the work of other scholars, Clara still had not detected his own independent focus and take on the research topic. In the beginning, Clara had encouraged Michael to study and review previous work within the field, but she noticed that he would not

shift into a more critical stance by himself. She was in doubt what to do. On the one hand, she would not want to take over his project and influence too much, but on the other hand, she feared that the research project would not acquire critical depth if she intervened in some way. Eventually, Clara decided to be a little more direct and challenging in her supervisory approach, hoping to rouse Michael into a more reflective and critical awareness of his own work. In the following supervision meetings, Clara would include more direct questions such as 'I acknowledge your great efforts in identifying and reviewing the key work within the area during the last ten years, but how does *your own* project fit into this? Why is *your* project important? What is it that you do *not* know and really want to know more about?' Her tone would be critical but encouraging and friendly, so as not to demotivate or dismiss Michael's efforts. Initially, she would not hear back from Michael as often, and at one point, she feared that she had been too assertive. However, a few weeks later, she started receiving questions and snippets of text that suggested a new turn in Michael's thinking—emerging proof of a strong, albeit slowly building, independent researcher's voice.

Scenario 2: Moral Support

Steve was supervising three doctoral researchers, one in his first year and two in their second year. Where some of his colleagues practised supervision as long, individual sessions, which primarily centred around the supervisor providing, explaining, and discussing his written feedback with the doctoral researcher, Steve favoured a different approach. In his view, the best way to support doctoral researchers was to integrate them into the disciplinary community and the workplace culture of the department. Steve did not see his primary role as the only one ensuring the quality and level of the research, as he was not assessing the final thesis, but to provide and expose his students to a fruitful, creative, constructive, and critical community of peers and senior colleagues, who would provide a varied and differentiated form of feedback that he could never encompass himself. Further, Steve considered his role as doctoral adviser to be responsible for the doctoral researchers he was supporting building a strong institutional foundation within the department and institution they were part of at this moment, *and* to build an equally robust international network with peers and senior academics in order for them to gain a wider career outlook and broaden their future career opportunities. To Steve, it

was just as much about the long-term view as it was about the immediate research project and the thesis writing. For him, becoming a doctoral researcher was about becoming socialised into an academic culture and developing a sound moral compass. Intellectual development and personal growth went hand in hand.

Scenario 3: Practical Support

As the Director of Graduate Studies (DGS), it was Helena's job to make sure that all the semi-annual assessment and evaluation reports, of the doctoral researchers within the doctoral programme she was heading, were formally processed and approved. Even though her role was mainly an administrative one, she felt a greater institutional responsibility for the doctoral researchers in her programme. She knew who were single parents struggling with mortgage and family issues, and she also knew who were struggling with mental health issues. Further, she was experienced enough to know that trying to play by the regular rules when trying to access extra funding, to speed up sick leave applications, and/or provide extra-curricular help and support to students who were in need of such was often in vain. Understandably, the doctoral supervisors in the programme could not cover these administrative and other issues. These supervisors were doing great work already, and they simply could not stretch themselves even further. Helena saw it as her role to become a 'guardian supporter' and to use her leadership role to look after her team as best as she could, particularly in relation to issues that involved institutional infra-structure. She kept in close contact with her team of doctoral supervisors, and when she spotted needs for support extending beyond the scope and competence of the individual supervisors, she would start to plan for the best way to secure extra support and help. On the institutional level, she became the champion of several doctoral researchers she never supervised or mentored herself.

Scenario 4: Emotional Support

Peter, main supervisor, was starting to get worried about the lack of prog-ress in Adam's, one of his doctoral researchers, project. Adam's work was progressing nicely in the first year and he had managed very well with little feedback and support from his supervisors. However, in the middle of his second year, Adam's work had lost momentum and he did not seem to be

working with the same energy and zest he had shown earlier on. After a supervision meeting where Peter decided to approach Adam with his concerns, he learned that Adam, in fact, did not find the project difficult, but he simply started to lose faith in the idea of doing a PhD. In Adam's own words: 'There are no jobs available anyway and nobody really cares whether he completes his research or not'. Peter had noticed that Adam had started to shy away from research team meetings and social events in the department. He, in turn, became more isolated and lonely. Peter supported Adam to put his important thoughts of the future on hold briefly and to explore his current situation and how it might improve. On reflection, Adam realised that in focusing only on progression, and what was to come next, he had cut out all 'non-essentials', and as a result, he was missing out on several ways by which his current work life could be made more fulfilling. Adam decided to pursue actions that would reconnect with the research team.

(Un)Conscious (In)Competences as a Framework for Conceptualising Support Within Doctoral Pedagogies

In the following, we connect the doctoral support model to the overarching framework relating to (un)conscious (in)competences as presented in Chap. 1. Here, we continue to demonstrate how the four strands of (un)conscious (in)competences are potentially at work within each pedagogical domain from the perspective of the supervisors, academic leaders, and researcher developers and/or other supporters of doctoral researchers. Initially describing possible and generic forms of unconscious and conscious incompetence, this will be followed by a description of possible generic forms of unconscious and conscious competence within the four pedagogical domains of the doctoral support.

(Un)Conscious Incompetence

In relation to the pedagogy of *professional support*, unconscious incompetence may include the lack of ongoing feedback from the supervisor, particularly the lack of feedback in the very early stages of the research process, where the foundation of study is framed and focused. Unless the doctoral supervisor and the doctoral researcher communicate and align

about the need for ongoing feedback, the supervisor may not be aware of any needs for discipline-related support that the student may have. The feedback could be on many different aspects of the research project, for example, clarity of research questions, focus in literature review, volume and scope of research design, enhanced theoretical understanding of core concepts or methodologies, and so on.

Conscious incompetence in relation to doctoral supervision may include replying to often posed questions from doctoral researchers such as: 'Are these research questions clear enough?', 'Is my literature review robust and broad enough?', and/or 'Do you think the volume and scope of my empirical sample are good enough?'. To reply to questions that require an overt assessment of the research project, or product, is often difficult to supervisors, especially to new doctoral supervisors. Conscious incompetence for doctoral supervisors may mean feeling insecure in their assessment of the PhD work and having the ability to explicate and discuss these with the doctoral researcher.

In relation to the pedagogy of *moral support*, unconscious incompetence may refer to the lack of awareness, from the doctoral supervisor and relevant academics, of the importance of including the doctoral researcher in the department and wider research and academic communities. (This is, of course, subject to various contexts, including the very system that the doctoral community operates in.) The doctoral supervisor may focus only on supporting the research project and thesis writing but overlook the importance of including the doctoral researcher in the workplace culture, habits, and routines of the department or programme. Giving moral support may start by inviting doctoral researchers to appropriate groups and meetings, depending on the institutional and national context. Possible opportunities of building strong workplace culture may include attending staff meetings, research team meetings, and research programme events. This can help ensure that the doctoral researcher has a voice and is heard not only as a doctoral researcher, but also as an academic, and possibly, a future colleague.

Conscious incompetence in relation to this form of support may pose similar issues, often due to the lack of resources—either pedagogical or economical. Sometimes, doctoral supervisors realise that their doctoral researchers become isolated or peripheral to the general work of the department or programme; this may be due to the path of specialisation or the personality of the doctoral researcher. It is, therefore, important within the domain of moral support if supervisors could possibly team up doing

some pedagogical work with other academics—co-supervisors, other colleagues, junior researchers (e.g. postdocs), more senior doctoral researchers, and even administrators and developers.

In relation to the pedagogy of *practical support*, unconscious incompetence may comprise the lack of awareness of how doctoral researchers are funded within the Graduate School system (or from elsewhere). This manifests itself when, for example, the doctoral supervisor may encourage the doctoral researcher to design her research project in a way that is not financially viable, for example, in relation to buying new equipment or software, securing the right work and office facilities, supporting overseas conference participation, or supporting a research stay at a foreign university for a longer period of time. In some occasions, it includes a lack of effort in helping secure teaching opportunities for doctoral researchers that are central to furthering their career and more permanent employment, or institutional-political efforts to secure the doctoral researcher a seat in institutionally influential committees or councils.

Conscious incompetence may include similar issues, as when doctoral supervisors realise that parts of the doctoral researcher's project cannot be realised due to lack of funding, or again, when the doctoral researcher has been invited on a longer research stay at a prestigious university, but the fee, travel, and accommodation cannot be met by the home institution. In relation to practical support, it is then important that doctoral supervisors, from early on, plan ahead with their doctoral researchers, and that research programme Directors, Department Heads, and Directors of Graduate Studies are brought into the discussion, as appropriate. Some of the scenarios exemplified here may require doctoral supervisors to engage with colleagues and leaders with greater institutional power or those with access to unspent funding from other research projects that could possibly be transferred to meet other funding-related needs.

In relation to the pedagogy of *emotional support*, unconscious incompetence may include lack of awareness of the feelings of uncertainty, insecurity, and stress that many doctoral researchers experience during the doctorate. If doctoral supervisors focus narrowly on providing professional and informational support to their doctoral researchers and/or dealing with disciplinary and knowledge matters mainly, they might potentially overlook the emotional implications for doctoral researchers in relation to managing the research process but also to handling career insecurity and maintain work-life balance. During supervisory meetings, doctoral researchers ordinarily focus on getting intellectual feedback from their supervisors when they meet up with them, and they seldom allow

themselves to address emotional issues with their supervisors—often feeling that this is not appropriate and simply a waste of the supervisors' precious time.

Conscious incompetence in this respect may then include doctoral supervisors becoming very aware of doctoral researchers being heavily overworked and stressed—concerning aspects relating to their research process as well as wider identity formation. Even if doctoral supervisors realise such issues, many may not feel competent to deal with emotional, psychological, and existential anxiety and stress. It is therefore critical that doctoral supervisors are aware of professionals within the Graduate School, or wider institutional infrastructure, from whom they may encourage their doctoral researchers to seek help if needed.

(Un)Conscious Competence

In relation to the pedagogy of *professional support*, unconscious competence may include the often quite brief ad hoc touchdowns and conversations that happen between doctoral supervisors and their doctoral researchers in the hallway, corridor, lunch canteen, or by the coffee machine or water cooler. Here, doctoral supervisors ask their doctoral researchers how their research is going and often stimulating conversation, including supervisor feedback, as a result. The importance of this ongoing and ad hoc feedback is rarely realised by doctoral supervisors, but to doctoral researchers it might just be the missing piece in the research puzzle. For some of them, such meetings may make or break the momentum and energy of the doctoral researcher, so it is quite central that doctoral supervisors be prepared to be as supportive, albeit critical, and constructive even in these conversations; although it may not mean much to them, these unprepared conversations may have a great impact on their doctoral researchers.

Conscious competence may include doctoral supervisors co-writing with their doctoral researchers. Often, such collaboration generates a lot of feedback and learning opportunities that are extra to, and a bonus to, the actual supervision meetings. When researching and writing together, doctoral researchers gain a unique opportunity to see how an expert within the discipline works and tackles several issues doctoral researchers themselves are likely to encounter themselves during the doctorate. Equally, co-writing with other colleagues besides the supervisors, for example, with postdocs or other senior academics (to the doctoral researchers), also provides more varied forms of and invaluable feedback than that offered by the supervisory team.

In relation to the pedagogy of *moral support*, unconscious competence may underpin doctoral supervisors' acting as supportive academic colleagues within the department, programme, school, and wider national and international networks. In order to progress as an academic, and not only to meet the formal requirements of the doctoral thesis, it is also arguably important for them to learn informally from more experienced members of the community and witness how they participate, say, in staff and research team meetings, how they socialise with their colleagues during lunch breaks or at research seminars, conference, and even at departmental social events. Often, doctoral supervisors do not recognise the full impact they have as role models to their doctoral researchers, in the full sense of the terms including institutional values, personal behaviour, and their general interpretation of academic identity.

Conscious competence in relation to moral support may comprise having an ongoing awareness, from the supervisors' side, of the long-term identity formation and career trajectory of the doctoral researcher. It is also then crucial that efforts be focused on connecting doctoral researchers to: (a) the local institutional level (e.g. department, programme, school); to (b) the national level (e.g. research networks between the different universities or research centres within the country or region); and to (c) the international level (e.g. research networks, collaborators at foreign universities, and connections via international conferences and journals).

In relation to the pedagogy of *practical support*, unconscious competence may refer to doctoral supervisors having a smoothly running research team, with adequate access to administrative and material support. To the doctoral researchers, joining a research team or programme that is either in the early stages or in the late stage when most of the funding has been spent can make a qualitative difference to their experience. Additionally, such conditions may even affect the general feel, energy, and motivational spirit within a unit, team, or programme. A well-run Graduate School or research programme, with strong academic leadership, is argued to be of great importance to doctoral researchers—whether starting up (getting all the right and relevant information and support), being midway (being able to draw from mentoring or coaching offers), and working in the final stage (receiving extra help in writing support and, practically, even with printing and eventually submitting).

Conscious competence in relation to practical support tends to include and refer to, say doctoral supervisors looking ahead early on by trying to

secure, or help doctoral researchers in securing funding for an important conference that might be coming up in two years' time, or providing advice on doctoral-related decisions that have crucial implications for doctoral researchers themselves (and their families), for example, fieldwork requiring stay overseas. This support may also include doctoral supervisors ensuring that doctoral researchers are given opportunities to teach courses, organise seminars and conference, and if possible, even assist in editing special issues in journals or edited volumes.

In relation to the pedagogy of *emotional support*, unconscious competence can be intimated by the doctoral supervisors' holistic approach to supervision, where from time to time, they ask about doctoral researchers' experience of the process, for example, if the challenges and frustrations are draining or otherwise emotionally demanding, and perhaps, ask if their family is well and how they are coping generally. Having this general concern for doctoral researchers may not even be noticed by doctoral supervisors themselves; instead, they may simply regard it as part of their general personality and work ethic. Having ongoing conversations about broader topics including doctoral researchers' future careers or life plans or if the doctoral researchers find their research meaningful and satisfying at a personal or existential level may also belong to other forms of important emotional support.

Conscious competence in relation to emotional support may then include efforts from doctoral supervisors in organising peer groups for intellectual and social support among doctoral researchers within the same research team or programme. Alternatively, it may include setting up mentoring schemes or buddy systems within the programme, where postdocs or even senior doctoral researchers team up with newer researchers to discuss process-related and emotional aspects of the doctoral journey.

What Are the Final Key Messages?

We argue that doctoral pedagogy is not limited to consisting only of doctoral supervision (professional support). There needs to be serious a consideration for expanding into a wider pedagogy that includes offering moral support, practical support, and emotional support to doctoral researchers.

Please note that we do not recommend that that already heavily burdened doctoral supervisors should be pressed to take on even more work and further extend their educational responsibilities to an unfair, even

unsustainable or illegitimate, level. We are not arguing that individual or even teams of doctoral supervisors should take on this broadened doctoral pedagogy. What we do argue, however, is that the forms and levels of educational and pedagogical support that doctoral researchers typically receive or need do not necessarily match or 'fit' the support provided by the supervisors or Graduate School (Cornér et al., 2018). On the other hand, some doctoral supervisors and research programmes indeed offer much wider unrealised and unrecognised forms of support and encouragement than they themselves are even aware of.

With our expanded doctoral pedagogy in mind, we encourage doctoral supervisors and academic leaders within research programmes and Graduate Schools to identify and discuss with their doctoral researchers what forms of support are offered by and/or available from the supervisors and the wider research environment and institutional system. This is intended to stimulate a better understanding of how support offered may address the needs that the doctoral researchers may have. In this way, a more sustainable and more inclusive doctoral pedagogy may be activated and harnessed.

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Beyond Surviving: Towards Thriving in Doctoral Education

Abstract Forming bonds and creating communities across academic, professional, and societal contexts is an ongoing experience for doctoral researchers. Intellectual energy, momentum, and support for the research process can be strengthened by personal and social lifeworlds beyond the campus walls. Supervisors, peers, academic friends, and the wider social network of family and friends serve as doctoral researchers' co-travellers in intellectually challenging and emotionally charged journeys. This suggests that doctoral journeys need not be a lonely ride, as previously claimed. Instead, doctoral researchers (and supervisors) can utilise their agency to pursue a thriving experience, maximising its overall quality. This final chapter will discuss what constitutes 'thriving' to enable doctoral researchers and their co-travellers to recognise the hidden curriculum and make it more visible, accessible, tangible, collective, and sustainable.

Keywords Complex PhD journeys • PhD co-travellers • Utilising agency • Thriving doctoral experience • Leveraging the hidden curriculum

Aiming for a Holistic Picture of the Hidden Curriculum in Doctoral Education

From one chapter to the next, our entire book is characterised by a shared effort to present various conceptualisations (including misperceptions or confusions), manifestations, key players, and expectations of the hidden curriculum in the doctoral contexts. This is underpinned by our collective view that crystallising what the hidden curriculum is is a precursor to achieving a much wider agenda, that is, fostering strategically meaningful connections between the visible (or formal curriculum) and all the equally valuable learning that takes place on its periphery, that is, the hidden curriculum.

In order to achieve that, this book is intentionally written as a conceptual journey. Starting by closely exploring the multiple notions of the hidden curriculum among different stakeholders (their roles, existing opportunities, why this area is worth investigating) and then focusing on and exemplifying how these various concepts are enacted in practice has enabled us to reflect how our proposed model (Fig. 1.1) could possibly be put into action. This then led to a radical new way of understanding the entire doctoral learning ecology (Fig. 7.1) and its implications for the expanded doctoral pedagogy via the doctoral support model (Table 8.1)—all this with a view to fostering an enriched doctoral experience that can effectively harness the complementary benefits of both the formal and hidden curricula.

Since the notion of the hidden curriculum takes into account understanding this term for what it entails for local and international doctoral researchers, supervisors, academic developers, institutional leaders, and so on, the term yields a more holistic and complex definition altogether. In an attempt to synthesise the multiple perspectives we presented in different chapters, we now propose this definition:

> The hidden curriculum in doctoral education comprises all unofficial mechanisms of learning that take place within and outwith academia. Learning via the hidden curriculum is recognised as genuine pedagogical spaces or sites of learning that can extend pedagogical practices by offering support provision for learners' academic, personal, social and psychological needs. Whereas the starting point in the pursuit of the hidden curriculum tends to be driven by doctoral researchers' ownership of this personal process, the entire doctoral ecology recognises that there are key 'hidden curriculum

agents' who are able to support, empower and enable doctoral researchers in creating learning pathways that are strategically intended to harness a tailored hidden curriculum based on personal needs and professional aspirations.

In this connection, each chapter represents a contributory attempt that endeavours to gain an appreciation of the doctoral learning ecology model in its entirety, through a comprehensive examination not only of the official curriculum, but equally of the hidden elements of the doctorate. Our in-depth exploration of the hidden curriculum led us to revisit and address the previously argued dearth of 'an expanded notion of [doctoral] pedagogy' and inadequate understanding of 'pedagogical spaces' (see Boud & Lee, 2005, p. 503). Our collective work has also contributed in extending a framework within which researcher environments are further developed, for example, via peer-learning practices. Throughout our book, we also elaborate on what an expanded doctoral ecology may entail conceptually and then in practice. By and large, by situating the discussions within the four stages of competence as part of doctoral researchers' experiential journeys, we have argued how these hidden but useful pedagogical practices need to be acknowledged not only in maximising and promoting a transformative doctoral experience, but also in sustaining psychological health and wellbeing. It is reassuring to know that within the doctoral ecology, harnessing the hidden curriculum often involves benefiting from the support of a number of hidden curriculum agents, namely, supervisors, researcher developers, and institutional leaders as well as developed personal and professional networks.

Towards Thriving!

From beginning to end, this book aims to contribute to a major change in the doctoral education landscape. In the last few years, we have seen an increasing amount of guidance on how to survive the doctorate, including its various inherent risks, for example, depression, loneliness, self-doubt, and other challenges to psychological wellbeing. In this literature (but *not* in this book!), doctoral researchers are often described as being constantly fragile and vulnerable, while supervisors and supporters are set a very challenging task to be careful not to hurt or destabilise them further. On the one hand, we do acknowledge and respect such approaches, since the effects of mental illness should never be underestimated or downplayed.

On the other hand, we have shown through the entire book that doctoral researchers and their supervisors are not without power and influence in creating productive and meaningful doctoral experiential journeys. Due to the nature of the doctorate, the experience of struggle may be inevitable, but there are also countless opportunities for a thriving experience. In our own interactions with doctoral researchers, this notion of thriving has become increasingly important over the years. And so, we hope that through our book, we may be able to add further in helping to spread awareness and impress the importance of doctoral researchers' individual agency as well as stress their contribution to fellow doctoral researchers' growth and development, and even to the wider researcher communities and to institutional value and worth.

Throughout the book, we have heard from, and met, doctoral researchers forming bonds and communities across academic, professional, and societal domains—and seen how social support and intellectual energy and momentum in the research process are linked to personal and social lifeworlds beyond the campus. We have seen doctoral researchers embarking on a transformative journey together with their supervisors, peers, academic friends, and wider social network of family and friends. This all suggests that the doctorate and the doctoral journey itself *are not* necessarily a lonely ride in spite of the likelihood, but being supported by the experience of many doctoral researchers. We have seen the doctoral journey unfold as a landscape with cities, communities, and friends. We wish to challenge the journey metaphor that tends to focus on and describe the individual learning trajectory of the doctoral researcher; instead, we wish to point out that these journeys can have qualitatively different narratives—similar to the journeys we have observed and described, which are essentially social and communal. Needless to say, the impact tends to last not only during but also beyond the doctorate.

In the first part of the book, community building became visible as not only taking place within researcher teams and peer groups at the institution; instead, it was further extended beyond the institutional domain and into social and cultural spaces in cafés, sports clubs, volunteer workplaces, and other private settings. In the second part, the focus moved from the community to individual ownership, agency, and the personal self of the doctoral researcher. In this part, we then witnessed the power of reaching out to others and thereby becoming a personal advocate of oneself, so to speak, through appreciation and involvement in mentoring schemes, peer environments, and support groups. Here, the individual doctoral

researchers realised an unexpected sense of meaning, belonging, and even sense of relevance that may sometimes be lost or overlooked in traditional, formal set-ups. In the beginning of the third part of the book, we saw the diverse and organic forms of pedagogy 'growing' around doctoral researchers, but often in an unseen and unacknowledged way—often with support from a constellation of people, for example, guardian supervisors, informal feedback from supervisors and mentors, backed up by various institutional schemes. In this final chapter, we wish to draw out even more clearly these constituting elements of thriving, and we argue that by doing so, we make it possible for doctoral researchers, their supporters, and/or co-travellers to wholeheartedly enter and engage with the hidden curriculum and, in turn, make it more visible, accessible, tangible, collective, sustainable, and real.

Constituting Elements of Thriving

Firstly, and as described in **Part I** of the book, **communities** are essential to thriving as a doctoral researcher (see also Cai et al., 2019). This is not merely because of the instrumental value of forming the right academic and professional networks for seeking opportunities and further career advancement, but because the sense of belonging is fundamental to personal wellbeing and maintaining academic momentum during the doctorate.

Communities exist within the institutional domain, for example, as 'intellectual communities' (Walker, Golde, Jones, Bueschel, & Hutchings, 2008), which covers formal communities around research teams, educational courses and programmes, and staff units within departments. Likewise, intellectual communities may include informal groups between peers, cross-generational in journal clubs, and support groups online. Communities also exist in professional and social domains beyond the institutional setting; it may be between current or former workplace colleagues (including settings outside the university), or formed in clubs, societies, and organisations (that are not related to the university), and/or between friends and family in the private domain.

To doctoral researchers, their supervisors, and wider academic supporters, we highlight that it is absolutely essential to consider the interlink and eventual integration of doctoral researchers into such communities from the very beginning of their doctoral studies. We acknowledge that it should not be left to chance, but neither should it be forced upon doctoral

researchers. Doctoral researchers think and write *from* a sense of belonging, whether disciplinary, institutional, or more personally oriented (see Cai et al., 2019). Being a doctoral researcher is, by and large, to *connect*. Whether doctoral researchers connect with the research literature, the research design, research team, or wider collegial units, they build their researcher identities through *connecting*. Facilitating this process of connecting is, therefore arguably, central for supervisors and supporters, and we advocate that providing opportunities in both formal and/or informal settings is a main and essential task for Graduate School leaders and managers.

Secondly, as stressed and exemplified in **Part II** of the book, **agency** is essential to thriving as a doctoral researcher. Experiencing intellectual freedom and the possibility of deciding on one's own research journey make it possible for the doctoral researcher to take ownership of the research process (McAlpine & Amundsen, 2009). Having agency enables the doctoral researcher to emerge not 'just' as a junior academic but also as a personal *self*. Often, uncertainty and anxiety during the doctoral studies are linked to feelings of anonymity and loss of a sense of a personal self, not separate from but embedded, *within* the doctoral journey. Through agency, the doctoral journey becomes meaningful (Bryan & Guccione, 2018) and enables academic formation and personal growth. Further, the feeling of agency enables the development of independence and the possibility of constructive risk-taking in the research process (Peelo, 2011). Taking risks in research and risking one's own preconceptions and assumptions require a strong sense of responsibility and freedom of choice. The power to be intellectually free and develop creativity, academic imagination, and criticality in the research process is closely linked to the feeling of agency (Brodin, 2016). It is then so very important that supervisors, research programme directors, and research team leaders maintain an interest in what the doctoral researchers think themselves. It goes without saying that supervisors should support doctoral researchers' intellectual pursuit, but just as importantly, they should also support their *agentive pursuit*, that is, helping doctoral researchers find their own voice and their own way into the research process, and back again.

Finally, as described in **Part III** of the book, **pedagogical leadership** is essential, arguably indispensable, to the thriving of doctoral researchers. Viewing pedagogical support holistically requires that supervision is seen *not* as a stand-alone pedagogical concept, but instead, the entire institutional ecology is viewed as a pedagogical organism around the academic

lives of doctoral researchers. With pedagogic leadership we do not mean handholding or patronising doctoral researchers, but the opposite. As Cassuto (2015) suggests, we need a whole new ethic around Graduate School identity and leadership. We need to move away from the idea of Graduate Schools as formal and legal infrastructures set up to secure funding opportunities and support individual excellence.

It may be difficult in a political climate that seems to favour individual and competitive academic pursuits and which define academic careers as individual trajectories more or less in a social and cultural vacuum. We therefore call upon senior academics as professors and senior lecturers are vital for contributing to the change of leadership in our research communities (Evans, 2018; Macfarlane, 2012). Pedagogical leadership demands a communal and collective mindset that fosters formal and informal academic environments, where doctoral researchers feel welcome, included, wanted, and even desired (academically). We need to move away from the idea of the Graduate School as a cold and remote machine and instead move towards the original idea behind schools—that they consist of their members and the collegial spirit they share.

Thriving in Graduate Schools

In realising thriving in Graduate Schools, we need them to be actual places not simply having a shadow existence as institutional structures without anyone knowing who the members are and what they gather around. A new ethic in Graduate Schools (Cassuto, 2015) can, therefore, focus on cohesion, supportive environments, sustainable cultures, and promotion of creativity, imagination, and dialogue. The ways, in which doctoral researchers are supported, need to reflect their identities and process of formation and growth as academics and persons. Generally speaking, being a doctoral researcher means to develop a series of nested identities from the nested contexts they become a part of (McAlpine & Norton, 2006). In connection with our discussion of thriving in Graduate Schools, let us revisit doctoral researchers' identity developments as this concept becomes imperative.

Researcher Identity

Researcher identity is bound up with creativity and intellectual freedom in the knowledge creation processes of doctoral researchers. Nothing is more

demotivating to doctoral researchers if their supervisors (often serving as their role models) do not take an interest in their research, their person, or if the larger institutional whole they become a part of seemingly characterises a 'PhD factory' (Goldman & Massy, 2000), the only function of which is to produce certain types of knowledge workers for the job market. The researcher identity is said to thrive when doctoral researchers are allowed to roam free and to disappear down the rabbit holes of strange ideas and weird forms of thinking. Doctoral researchers thrive in 'wonderlands' (Frick & Brodin, 2019), and this need not only be an individual pursuit but a communal and collective endeavour. We need a graduate environment that oozes creative energy and vibrates with curiosity and wonder. It is in the stimulation of intellectual creativity that the researcher identity matures and becomes original and independent.

Academic Identity

Academic identity is centred around becoming a practitioner, a professional within the academic domain. Many doctoral researchers discover for the first time what it means to be a teacher, a supervisor, or a mentor to students on the lower levels. Suddenly, they are not students any more but, on the contrary, the experts and practitioners within their field or discipline. Doctoral researchers even turn into role models for Master's and Bachelor's students; they experience what it means to teach, guide, and support students in their learning trajectories. Moving to the other side of the fence can be a daunting and challenging task, with some doctoral researchers not feeling ready to assume the responsibility that goes along with this change in roles. Still, doctoral researchers thrive once they start experiencing the generosity and opportunity to give to others what they, in fact, actually need to progress in their own learning. If supported in the right way, the formation of academic identity can be a great leap for doctoral researchers into developing an individual voice and building up the courage and will to lead and support others.

Moral Identity

Moral identity is attached to becoming a colleague and entering into a department culture and into a collegial identity. Although moral identity tends to be present among students of all levels, doctoral researchers experience it differently when entering their doctoral studies. Their colleagues

not only include their fellow doctoral researchers but also their supervisors, other junior, and senior academics in their department or unit, their department heads, administrators, consultants, and technical personnel. Being a good colleague is not entirely the same as being a good fellow researcher. Age difference may vary greatly within a large unit, as may the diversity of job functions, career trajectories, and aspirations in life. As a doctoral researcher, it may be a challenge to develop a proper moral compass and understand what it means to be collegial, supportive, and forgiving towards other people that they are bound to be (working) with, even though their presence may not directly influence the research outcome. Treating others with respect and understanding the meaning of interdependence within academic cultures and institutions on a deeper level than transcends one's own individual agendas and aims is important to thriving and formation in the doctorate (Walker et al., 2008).

Social Identity

Social identity is centred around doctoral researchers' personalities and their understanding of citizenship and wider societal and cultural belonging. The entanglement of values and worldviews anchored in identities as friends, partners, parents, siblings, and sons and daughters requires skill and focus to balance for doctoral researchers. Their sense of belonging to other professional domains, social clubs, societies, unions, organisations, and networks may then influence how they see their doctoral goals and purposes, even their further careers and life trajectories. Thriving as a doctoral researcher may mean you letting your guard down and letting colleagues, researcher associates, and leaders get to know who *you* are and how you integrate doctoral research into your lifeworld more generally. It is important to guide doctoral researchers on the matter of not trying to get their personal lifeworlds to fit into the doctorate, but to integrate the PhD and the doctoral journey into their social and personal lives. Welcoming the *person* and his or her lifeworld into the doctoral journey is regarded as being of huge importance to Graduate Schools in an attempt to build and sustain a living and breathing academic community.

Leading the Hidden Curriculum

As the book has primarily and consistently addressed itself to doctoral researchers themselves, and in particular chapters, also to their supervisors and wider academic supporters (researcher developers, mentors, coaches), this final section intends to speak specifically to leaders of postgraduate research (or doctoral) programmes—often referred to as the Director of Graduate Studies (DGS). Interestingly, the literature focuses mainly on supporting doctoral researchers and their supervisors, whereas in practice the DGS and leaders on the middle levels, for example, research programme directors, PGR tutors and convenors, and Heads of Doctoral Studies, will also play a vital part in *leading* the hidden curriculum. It goes without saying that leading the formal curriculum takes up most of their official work focus. However, leading the informal, and hidden, curriculum is just as central, if not more so.

Drawing from the argument throughout the book and merely with the aim of bringing Graduate School leadership more into focus, we set out five key recommendations in relation to *leading* the hidden curriculum.

Being Visible

In many universities today, we see a move towards a centralisation within the institutional infrastructure, which means that departments and faculties diminish in number while increasing in size by covering many different units and sections, which were previously Departments or Faculties themselves. Often, Graduate Schools follow the same pattern and may cover a very diverse set of subjects and sub-disciplines making them more complex—both structurally and academically. As a consequence, some doctoral researchers, and even their supervisors too, very rarely meet or hear from the DGS in person. Instead, the DGS is almost replaced by the messages or standard emails received, or visits from the secretary or a representative from the doctoral administration.

In the growing administrative structure within Graduate Schools, the DGS unintentionally risks becoming a shadow figure, hidden behind the structure that is somewhat set up ironically to ensure better communication and greater efficiency in tackling important doctoral-related issues. It is, therefore, central that Graduate School leaders are visible, accessible, and present within the research environments which they lead. It is only possible to create the feeling of a cohesive and collective school or

programme if the person or people leading it are easy to approach, both structurally but also very much in person. When the person in charge becomes visible, the *life* of the leadership becomes tangible and receives credibility and legitimacy.

Shaping the Culture

Typical concerns for Graduate School leaders include securing funding for doctoral programmes and candidates, enhancing the efficiency and quality of the recruitment process (getting the right candidates who are able to complete their doctoral studies), and taking part in the political life on the leadership levels within the institution. Less often is their time spent on 'welfare' work or community building within the Graduate School. However, community building, as we argued throughout the book, is central to fostering value creation and wellbeing of the doctoral researchers and their supervisors. Creating cultural values that endure in such a large and changing organisation as the university requires that members of the Graduate School come together and agree on their shared vision, values, and belonging they wish to strive for. Too often, we observe the central bearers of these values, that is, the Graduate School leaders and senior academics within the departments, as to not having the time and opportunity to meet regularly. The unfortunate consequence could be that the Graduate School becomes a mainly structural entity without a common and treasured culture to sustain it. It is then central to prioritise building and strengthening the Graduate School community, not only among the doctoral researchers, but among their supervisors and the wider supporters and leadership too.

Participating

Due to the large organisational units, Graduate School leaders, often against their will, may see themselves being forced to assume a managerial role in the leadership, where they might also be leading the politics around the Graduate School activities but are not involved in the actual work (research and researcher education) that their members undertake. Also, because of the many departments collected under one umbrella, the DGS may fear to unintentionally favour some departments over others. Even though this might be understandable, it is essential for the DGS, from time to time, to participate in local doctoral research seminars,

work-in-progress seminars, research visits, hosting visiting professors' talks, and in conferences hosted by researchers from the Graduate School. Showing an interest in and care for the activities and events taking place in the everyday life of the various members of the Graduate School is important, but it is even more important for the Graduate School leaders to know very clearly what happens in the community. This can facilitate merging the levels of policy and practice within the Graduate School, but also having a presence in relation to being *there* as a *member* herself or himself is something that the whole research community is expected to appreciate and value.

Being an Active Researcher

At some universities, being a Graduate School leader has become a full-time job, with very little or no time to pursue one's own research interests and to supervise doctoral researchers. Unfortunately, this situation sometimes make Graduate School leaders feel removed from the research and educational practices they are leading (and vice versa). Sometimes, but not always, a consequence may be that Graduate School leaders become seen by other members of the Graduate School as somewhat removed or even distant from the very heart of research and educational activity. We argue that when Graduate School leaders are appointed, it is crucial that they maintain some research time in their busy academic lives. This then enables them to continue being members of active and ongoing research and educational activities, forums, networks, and various communities within the Graduate School. At times, even when Graduate School leaders actually do manage or continue conducting their own research, this is not often promoted as part of their work as the DGS. It can be argued that DGS being immersed in and becoming active members of the communities they are leading potentially offers a lot more benefit than they could anticipate.

Distributed Leadership

Even though it may be a challenge within the institutional managerial and administrative set-ups that Graduate Schools and their members are framed within, leadership needs to be understood and enacted as distributed leadership. The bottom-up process is crucial in order to include, mobilise, and engage doctoral researchers and their supervisors too. Equally, it is important that the notion of leadership is viewed in a

communal and shared sense, so that Graduate School ownership, agency, and responsibility are not being removed, or shied away from, at the level of doctoral researchers and supervisors. Whereas it is valuable for the DGS to engage themselves in various research activities and milieus within the Graduate School, it is just as important for middle leaders, that is, research programme directors and postgraduate research/PhD programme directors, as well as for supervisors and doctoral researchers to assume a joint responsibility in creating and sustaining both formal and informal communities. In this respect, we prefer that the Graduate School not harden as a structure but to maintain its vibrancy, vitality, and humaneness as part of its culture—where tasks, responsibilities, and initiatives are distributed within the entire Graduate School. They exist and need to actively involve everyone from all levels—from doctoral researchers to research programme directors.

Final Questions for Reflection

Taken together, the whole book is our collective endeavour to present a greater and a holistic appreciation of the complexities that underpin the entire doctoral ecology. We recognise that there is no prescribed one way of leveraging the hidden curriculum. Nevertheless, it is our hope that the various conceptual frameworks, approaches, and models that we discussed in the context of doctoral education:

- the formal and the hidden curriculum framework,
- the REPAIRS model,
- person-centred and peer dialogue approaches for personal and professional development,
- the doctoral learning ecology model leading to consideration for an expanded doctoral pedagogy with a more tailored doctoral support model

can facilitate in initiating new and, perhaps, more effective ways of addressing the many prevailing challenges, still facing many doctoral researchers. By elucidating the many interconnected elements in doctoral studies, it is our intention to encourage and inspire various key stakeholders of doctoral education to reflect individually, and collectively. They may perhaps even consider how their individual responses might possibly form part of

such interconnections towards a less fragmented but a more holistic and aligned provision for the doctoral researcher community.

Some specific questions that we want our readers (or the hidden curriculum agents) to reflect upon are:

1. If you were a <u>doctoral researcher</u>, what could serve as a starting point for exploring what the hidden curriculum offers? How can you create your own learning pathways? What are effective ways of seeking personal and professional networks?

    Your considerations may include your passion and interests, your needs and aspirations, and more importantly, your intention to own and manage your personal and professional development via your doctoral experience. Evaluating your areas of competence will guide you (a) in ascertaining already developed areas and those needing to be developed and (b) in constructing a coherent set of goals that are aligned with your own progress and development. Likewise, accepting that achieving a PhD qualification requires preserving one's psychological wellbeing makes tapping into the hidden curriculum 'resources' more worthwhile.

2. In acknowledging how the hidden can strongly complement the benefits of the formal curriculum, how can <u>doctoral supervisors</u> guide their doctoral researchers to harness various forms of learning via other forms of genuine pedagogical spaces?

    This requires a trustful relationship, which starts from viewing each doctoral researcher as 'a whole person' who has unique needs. Developing a healthy relationship with doctoral researchers is essential and is supplemented by communicating the nature of the supervisory process (i.e. to convey a shared and deep understanding of doctoral standards). As supervisors facilitate doctoral researchers' transition from conscious incompetence to conscious competence, this may demand greater reflection on the potential impact of their words, actions, reactions, and expressed attitudes to doctoral researchers in either the formal or informal setting.

3. What role do <u>researcher developers</u> play in encouraging doctoral researchers to exploit the potential benefits of the hidden curriculum? How can the courses, seminars, and workshops include and/or even highlight hidden forms and mechanisms for learning? How can they support a person-centred use of the hidden curriculum among

doctoral researchers? How can the hidden curriculum be given 'pedagogical spaces' and be part of research culture development? How can examples of effective practice on the use of the hidden curriculum be encouraged among the whole researcher community?

Researcher developers are also in a unique position to help expose and, in turn, promote learning through the hidden curriculum. They are able to reach out to both doctoral researchers and their supervisors—impressing upon them that a strategic approach to the hidden curriculum is likely to be beneficial, rather than it being seen as a distraction. It is likely to fall within their remit to clarify or integrate what is required for the learning processes within doctoral education, for example, distributed peer learning, re-learning, or unlearning lessons that are no longer applicable to the doctoral experience. Since they also often find themselves mentoring, coaching, or helping create effective learning spaces via dialogic and relational approaches, their role affords offering advice to whomever seeks it. Through informal discussions with both doctoral researchers and supervisors, for example, the importance of the doctoral researchers to be proactive, with the support of the hidden curriculum agents, can be strongly conveyed.

4. How can higher education institutions encourage harnessing of the hidden curriculum?

Accepting the argument that attention to the hidden curriculum is not only crucial but extremely important in doctoral education requires institutions to prioritise this area by creating policies intended to support all hidden curriculum agents, that is, doctoral researchers, supervisors, researcher developers, and Graduate School leaders. Moreover, senior management may consider going beyond the formal curriculum as the sole focus. Important as it may be, the formal curriculum can be experienced much more meaningfully through the learning reinforcement received from its hidden counterpart. The necessity to facilitate multiple informal learning spaces, which can pave the way for doctoral researchers' pursuit of the hidden curriculum, is then strongly encouraged. Equally, the value of joining personal and professional networks, as legitimate sources of hidden curriculum activities, needs to be stressed, with real effort devoted to facilitating doctoral researchers' active pursuit of them. Recognising the importance of effective leadership in the genuine

thriving of the hidden curriculum, we ended this chapter by offering five key recommendations for Graduate School leaders' consideration—as discussed in the earlier part of this chapter.

Through a joined-up approach, there is greater likelihood that the harnessed hidden curriculum can complement, maximise, and reinforce the provision via the official curriculum. Doing so is not intended to be a panacea as it cannot possibly address all existing doctoral-related concerns. It is nevertheless essential to recognise that each stakeholder (or hidden curriculum agent) has a crucial role to play. Their collective efforts can then help maximise the realised benefits from the complex but rich doctoral learning landscape—leveraging not only the official but also the hidden curriculum in the doctoral context.

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GLOSSARY[1]

Agency The idea of 'agency' refers to doctoral researchers' intentional efforts to pursue endeavours that contribute to the development of their doctoral identity.

Bio-ecological system's theory This is a well-known theory in developmental psychology proposed by Urie Bronfenbrenner which aims to explain what governs human growth and development from cradle to grave. This theory expounds the interconnection in the person's multilevel ecological system consisting of microsystem, mesosystem, exosystem, macrosystem, and chronosystem comprising the entire ecological system.

Coaching Like mentoring, coaching is regarded as a specialist educational practice, which involves a non-directive developmental conversation focusing on self-identified development needs.

Co-existing ecological systems Drawing upon Bronfenbrenner's bio-ecological system, this concept elucidates the simultaneous existence of the old and the new ecological system following international students' decision to study in another country. Although the presence of the two ecological systems denotes disruption at each level of the ecological system, this situation also brings about unique opportunities to study (or educational) sojourners/international students.

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[1] The following terminology is explained within the context of doctoral education.

Doctoral journey A 'doctoral journey' is a metaphor commonly used to illustrate the long venture that undertaking the doctorate entails. Along the way, the doctoral researcher is bound to meet fellow travellers and non-travellers as well as have a very diverse experience that is not necessarily doctorate-focused but can nevertheless enrich the journey.

Doctoral learning ecology The main premise underpinning the doctoral learning ecology model is that the doctoral journey takes place simultaneously within and across several domains of learning, namely, discipline, institution, workplace, and the person's lifeworld.

Doctoral qualification The highest level of qualification achieved following successful completion of doctoral education. This is often viewed as the ultimate 'product', enabling a doctoral researcher to earn the prestigious title 'Dr'.

Doctoral researchers Those who have embarked on many years of hard work and intensive research in pursuit of doctoral education. See also 'Doctoral qualification'.

Doctoral support model A proposed model designed to address doctoral researchers' four foundational needs to support a meaningful and successful doctoral journey.

Doctoral values Something deemed personal to each doctoral researcher based upon their personal preferences and responsiveness to the opportunities around them. Such values may consist of acquisition of new information, understanding, or insight, new abilities or skills, as well as developed relationships, friendships, or social support.

Expanded doctoral pedagogy This concept posits a holistic approach in doctoral education; there are four foundational needs that require a variety of different pedagogies or educational support—each is arguably relevant to the specific form of learning, development, and growth that doctoral researchers typically undergo. (These four needs are professional, moral, practical, and emotional support.)

Hidden curriculum Doctoral researchers' complex studies are likely to require much more than academic support. Due to the intertwined nature of academic, personal, and social needs, doctoral researchers and all who support them are encouraged to look beyond formal academic learning and support systems within the university—generally referred to as the hidden curriculum.

Identity development Or 'researcher identity development' is considered a crucial component and an underlying educational goal as core to the doctoral learning experience. To develop one's identity is to assist doctoral researchers in finding their own voice as independent scholars in their field.

Imposter syndrome This can refer to the feeling that one is not good enough to be undertaking doctoral studies despite strong evidence to the contrary.

International learning experience Also called study (or educational) sojourn in the literature is the temporary experience of studying and living in an environment with a different societal culture and values, academic systems and practices, language(s), food, and weather, among others. International learning experience paves the way for the co-existence of two ecological systems.

Mentoring Like coaching, mentoring is regarded as a specialist educational practice, which involves coaching-style conversations plus experience-based sharing and guidance.

Official curriculum This is the visible curriculum that denotes the formal curriculum structure. The doctoral setting primarily encompasses supervisory meetings as well as discipline- or research-related courses, seminars, and workshops offered by the Graduate School to doctoral researchers.

Peers Within the context of doctoral studies, they include other doctoral researchers, postdocs, or even other academics, who are able to offer varied forms of support and feedback, in addition to what is received from the supervisory team.

Person-centred approach A recommended strategic approach for navigating the vast expanse of both the formal and the hidden curricula during the doctoral journey. This approach informs doctoral researchers' actions, reflections, and decisions leading to their pursuit of personal and professional development in general and core research competences, in particular.

Personal development plan A pedagogical tool designed to assess doctoral researchers' strengths as well as weaknesses as they consider various strategies and ways by which they can continue to grow and develop as independent researchers while aligning their expectations with their

supervisors. Vitae's Researcher Development Framework (RDF) from the UK serves as an ideal framework for planning and discussion with emphasis on using a person-centred approach. Topics for discussion also typically include doctoral researchers' position, motivations, and future intentions.

Process This presents a comprehensive view of what is involved in doctoral learning that is neither constrained to recognised learning contexts nor restricted only to conventional or recognised learning activities. On the contrary, learning takes different shapes and forms and can be delivered through genuine pedagogical spaces or sites of learning.

Product This refers to the doctoral qualification following many years of rigorous and intensive research leading to doctoral researchers being given the right for the prestigious title to be attached permanently to their names. See also 'Doctoral qualification'.

Psychological wellbeing Based on the premise that a strong interconnection among personal, social, and academic elements exists and given the intellectual challenges and emotional demands that doctoral education requires, this leads to the importance of maintaining the psychological wellbeing of doctoral researchers. Doctoral researchers' psychological wellbeing is being increasingly given prominence in research and literature.

Research community Broadly speaking, research communities are groups of scholars whose active interactions are primarily informed by a shared expertise and interest in the same discipline, research method, or specific topic areas.

Research Development Framework (RDF) The Researcher Development Framework (RDF) from Vitae (https://www.vitae.ac.uk) contains four essential domains for doctoral researchers' personal and professional development during doctoral studies and beyond. See also 'Personal development plan'.

Researcher developers Also referred to as 'academic developers' are those who are primarily in charge of 'providing skills training' to doctoral researchers and their supervisors. Recently, their roles have been broadened to include mentoring, coaching, dialogic, and relational approaches, among others.

Stages of competence Based on the process and stages of counsellor development, this psychological framework offers a useful way of

understanding the processes behind doctoral researchers' learning via formal, informal, or hidden mechanisms. These stages progress from 'unconscious incompetence' to 'conscious incompetence', to 'conscious competence', and finally to 'unconscious competence'.

Study (or educational) sojourn This refers to the temporary experience of studying and living in a foreign context. This experience not only highlights to the learner any differences between the host and the home country. More importantly, it provides various learning opportunities within the co-existing ecological systems. See also 'Co-existing ecological systems'.

Supervisors Through supervisory sessions and formative feedback, supervisors play a crucial role as they closely work with doctoral researchers to support their progression from the beginning to end. Supervisors also serve as the first port of call for doctoral researchers—mostly for academic but also even for non-academic-related matters.

Third space The concept refers to the space that is devoted to relaxation and recreation while scaffolding learners' learning but it is not linked to family, educational, or work matters. Such space is a 'creative pathway and strategy' for maximising one's chances of achieving both a meaningful and a successful doctorate.

Training and development A fundamental idea in doctoral education is to develop doctoral researchers to become independent scholars and researchers. This necessitates offering doctoral researchers a training programme (e.g. courses, seminars, and workshops) designed to develop or enhance their core research competences. See also 'Research Development Framework'.

Transformative growth Growth that is transformative refers to doctoral researchers' growth and development on both personal and professional levels. A meaningful doctoral learning experience is likely to lead not only to attaining a doctoral qualification but to experiencing genuine transformative growth.

Transition Doctoral researchers typically go through different forms of transition, for example: (a) from unconscious incompetence (i.e. not being aware of the core competences they are deficient of) to unconscious competence (i.e. excellent level of proficiency on required core competences); (b) international doctoral researchers as they transition from one ecological system to another; (c) transition from a taught

system of learning into one that is characterised by independent learning; and (d) transition to the intense, multiple, and intellectually and emotionally challenging demands that are standard in doctoral studies. See also 'Stages of competence', 'International learning experience', and 'Person-centred approach'.

Work-life balance Comparable attention paid to both personal and doctoral lives. Given inherent challenges, transitions, numerous demands, and high levels of stress that are associated with doctoral education, practising work-life balance could be another challenge but a necessity in maintaining doctoral researchers' psychological wellbeing. See also 'Psychological wellbeing' and 'Transition'.

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