

Central Lancashire Online Knowledge (CLoK)

| | |
|----------|--|
| Title | Managing the Expectations of Doctoral Students and their Supervisors |
| Type | Article |
| URL | https://clock.uclan.ac.uk/id/eprint/48052/ |
| DOI | https://doi.org/10.3390/encyclopedia3040105 |
| Date | 2023 |
| Citation | Palmer, Clive Alan, Sprake, Andrew orcid iconORCID: 0000-0001-5164-770X and Hughes, Chris (2023) Managing the Expectations of Doctoral Students and their Supervisors. Encyclopedia, 3 (4). pp. 1474-1488. |
| Creators | Palmer, Clive Alan, Sprake, Andrew and Hughes, Chris |

It is advisable to refer to the publisher's version if you intend to cite from the work.
<https://doi.org/10.3390/encyclopedia3040105>

For information about Research at UCLan please go to <http://www.uclan.ac.uk/research/>

All outputs in CLoK are protected by Intellectual Property Rights law, including Copyright law. Copyright, IPR and Moral Rights for the works on this site are retained by the individual authors and/or other copyright owners. Terms and conditions for use of this material are defined in the <http://clock.uclan.ac.uk/policies/>

Entry

Managing the Expectations of Doctoral Students and Their Supervisors: A UK Perspective

Clive Palmer ^{1,*} , Andrew Sprake ² and Chris Hughes ³¹ Graduate Research School, University of Central Lancashire, Preston PR1 2HE, UK² School of Sport and Health, University of Central Lancashire, Preston PR1 2HE, UK; asprake@uclan.ac.uk³ Graduate School, Edge Hill University, Lancashire L39 4QP, UK; hugheschr@edgehill.ac.uk

* Correspondence: capalmer@uclan.ac.uk

Definition: The management of expectations in doctoral education relates to the negotiation and agreement of a learning contract denoting actions and initiatives between a student and a supervisor. A learning contract is a set of understandings of what things, actions and initiatives might reasonably be expected from whom, in the course of learning, where there is a natural power imbalance. This is important so that both scholarly and material progress can be made along all points of the doctoral learning experience, i.e., that learning is personalised, professional and productive towards an original contribution of knowledge. It is the evidencing of this continual learning process through research that is deemed to be doctoral at the final examination stage. A doctoral student is a learner on the highest degree pathway that is available at all UK universities. This typically results in a thesis, marking the end point of being supervised whereupon an assessment or examination takes place, which, in UK universities, is called a *viva voce* (Latin: the living voice). This is a verbal account or defence of the thesis document by the student, made to two or three examiners who comprise the examination team. In the UK, the viva examination is a private event, while elsewhere, for example, across Europe and North America, the examination can be a public event. A student on a doctoral programme usually has a period of registration that is 3 years full-time or 6 years part-time. Other terms that can be used interchangeably around doctoral supervision are candidate (for the student) and candidature, which is their period of registration. Supervisors also have roles denoted as the Director of Studies (DoS) or Principal Investigator (PI). The supervision team is led by a Director of Studies (or PI) who is often the most experienced scholar who teaches, guides and mentors their student's learning through the research they conduct. There are usually at least two supervisors in a supervision team in the UK, but there can be more as required depending upon the specialisms and topics being researched. Expectations formed by either the student or the supervisor(s) can be about physical resources to embark upon a passage of learning through a doctoral programme, or more typically, the discussion of expectations relates to managing the behaviours of students and supervisors in their respective roles. Managed expectations help to achieve a balance between the intellectual sharing of expertise by the supervisor with the self-directed initiatives for learning, which are taken by the student. The aim of managing expectations is to help a student move from dependence in their learning at the start of their programme to becoming an independent doctoral-level scholar who, once graduated as doctor, can act autonomously to conduct their own research, or even embark upon supervising others' research in the future.

Keywords: expectations; doctoral student; postgraduate research supervision; learning

Citation: Palmer, C.; Sprake, A.; Hughes, C. Managing the Expectations of Doctoral Students and Their Supervisors: A UK Perspective. *Encyclopedia* **2023**, *3*, 1474–1488. <https://doi.org/10.3390/encyclopedia3040105>

Academic Editors:
Elena-Mădălina Vătămănescu,
Fulvio Mazzocchi and
Raffaele Barretta

Received: 23 July 2023
Revised: 6 November 2023
Accepted: 20 November 2023
Published: 28 November 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

To explain some strategies and offer the best advice for managing the expectations of doctoral students and their supervisors, this entry paper is structured around three core domains for effective, ongoing doctoral supervision. That is, this paper focuses on managing expectations around the following:

1. **Topic selection:** A discussion about methodological choices and intellectual freedoms;
2. **Contact and involvement:** Degrees of contact in the learning relationship;
3. **Thesis/dissertation:** Producing a thesis that is worthy of examination.

The case for managing the expectations of both doctoral students and supervisors during the course of research is well established as being institutionally good practice [1–3], as it relates to the flow and openness of communication in learning and therefore affects the quality of experience of being either (a) a doctoral student or (b) the supervisor of doctoral students. Managing the expectations of learners is not a new concept [4–7], nor is that of professionalising supervision practice to enhance the quality of the student experience [8]; however, since the 2000s, there has been an increasing return to Higher Education from the undergraduate ranks to postgraduate [9], and in particular, postgraduate research and doctoral studies [10,11]. This increase in returning student numbers has brought with it raised expectations from learners about the kind of student experience they might have upon reconnecting with Higher Education in doctoral studies. This has generated ongoing research into student satisfaction [12], differentiated learning [13] and learning contracts [14] and especially in managing expectations around doctoral learning [15–18]. This educational research has informed doctoral training for academic colleagues becoming involved in supervision [19–21], as well as for students at the start of their programmes at induction [22,23]. For example, the research conducted by George Brown and Madeleine Atkins in 1988 [24], with their *Role Perception Scale* for doctoral learning, is as relevant today as it was 35 years ago. It is still being recommended by the UK Council for Graduate Education [25] (UKCGE) to all of the research funding councils across the United Kingdom through the UKRI [26] (UK Research and Innovation) as a means to improve the quality of student learning experience in the doctoral programmes that UKRI supports in their formal partnerships [27].

The research conducted by Hopwood et al. [28] into *The Hidden Realities of Life as a Doctoral Student* reveals how coming to know a student's pressures in life and their preferences for learning is as important as it is for students coming to appreciate their supervisor's needs and timescales, so that each can be the most effective for each other in the doctoral journey. Hopwood and colleagues [28] show us that 'nothing is normal' in student life and that therefore, it is good advice for a supervisor not to make any assumptions or stereotypical expectations about what 'a normal' doctoral student may be able to do. Hopwood et al.'s [28] conclusions (p. 229) clearly point to why establishing common ground for expectations is important for each and every doctoral student. They found the following:

- i. The everyday lives of doctoral students vary greatly from individual to individual—**there is no 'normal' student**;
- ii. For particular students, working patterns and time spent on other activities vary from week to week: **there is no 'normal' week**;
- iii. Although often rumoured to be isolating, doctoral experiences can involve interactions with a wide range of people. These are not guaranteed and reflect institutional provisions and students' own agency in making them happen. **There is no 'normal' pattern for interacting with others**—interactions vary from person to person and from week to week;
- iv. While it is 'normal' to experience challenges or difficulties on a regular basis during the doctorate, particularly in relation to time and emotions, responses to these challenges vary between students from week to week for particular individuals—**there is no 'normal' response**."

2. Topic Selection: A Discussion about Methodological Choices and Intellectual Freedoms

The 'no normal' position from Hopwood et al. [28] is a useful prompt for the supervisor to consider what kinds of practical help they may need to develop this critical part of the student's undertaking in research. Thus far, our paper signposts the reader to sources of information to help colleagues supervise students within this unpredictable, 'no normal' context. However, 'no normal' does not entail 'no sense', and it also does not entail

‘anything goes’, either. Our attention will now be paid to two crucial aspects of research design: topic selection and methodology. Our discussion will revolve around the notions of freedom and responsibility, piloted by three guiding questions.

2.1. A Question of Selecting a Promising Topic to Research—Who Decides?

To help us tackle this question, and the two that follow, a little scene setting and context will be necessary. Imagine that there is a doctoral examination—a verbal defence—and the candidate is asked to outline how and why they selected the topic that they chose. Please hold that picture in mind and let it play out in different ways as we proceed.

Barnett [29] evokes Heidegger [30] to describe the intellectual condition of 19th-century Europe, where both the professor and student were ‘pedagogically, both in a state of ignorance’ (p. 92). Such a conception, or indeed, an admission, leaves this delicate relationship as one of joint inquiry. Let us cut to our candidate for a second, who said, ‘well, together, me and my supervisors, we decided to choose this topic because. . .’ Might the examiners be worried here on a point of integrity as to whose work they are assessing? Nevertheless, it is clearly the case that research supervision is person-centred as well as project-centred; supervisors supervise the people conducting research, and not just the research being conducted by those people [31]. In fact, there are more people conducting such research and, inevitably, more colleagues supervising than ever before. Mass Higher Education and ‘cognitive capitalism’ [32] breathe life in one sense, yet in another, they breathe constraint. Such instrumentalism and economic imperatives mean that the freedom to choose topics looks different for the self-funding student compared to the funded scientist.

Research topics do not just appear; they come about by recognising what we already have. ‘So, we know lots about X, and Y has been researched in depth, nothing new has emerged here for a while and so we decided to investigate Z’, replies our fictional candidate. If there is evidence of critical thinking here, that being a genuine and reflective disposition of critical thinking, and that our fictional examiners can identify such, then it could well be the case that the supervisor (behind, or upfront) could have nudged, ca-joled, and provoked in the student the taking up of a particular topic in a particular way, to develop a ‘disposition’ [32] of critical thinking towards the matter in hand. After all, absolutist notions of freedom and responsibility would be of no use in our ‘no normal’ context, in which a genuine learning relationship, one that brings about ontological rather than mere epistemological development, is, and should be, encouraged [29].

2.2. A Question of Freedom to Select Theoretical Frameworks—How Free Are We?

With our established scene of the student accounting for decisions and directions in their doctoral research, it becomes clearer how the supervisor has a responsibility to help shape and guide this underpinning theoretical thinking. However, it is the student’s responsibility to defend and justify their research; they obtain or do not obtain the doctorate, after all. The reasons provided by our fictional candidate for using a certain theory, for example, must be reasonable, that is, there needs to be reasoning. This is an important distinction, as Bakhurst suggests [33], as we might see a university as a space for reasons. This ties in with our fictional examination. There, the candidate cannot just provide any reason; their reasons would have to be tied up with other reasons, a line of reasoning, a connection between the theories selected and the questions being pursued. Not any theory will count as a good fit for the job in hand; the key is knowing the job that the theory needs to help with. For Bakhurst [33], this is what is implied by a ‘mode of intelligibility’.

On a relevant but amplified scale, affecting the student’s and supervisor’s decisions directly, is their propensity to select or reject certain models or frameworks for tackling a research problem, influenced by the (sometimes pejorative) prevailing knowledge embodied in Western thinking [28]. Challenges to the traditional or normal way of carrying things out in research should ideally be welcomed by the doctoral community, given that that community inhabits cultural spaces in universities that proliferate across many countries globally [28]. For the student’s (and the supervisor’s) work, now in the hands of examiners,

there is the constraint and risk of acceptance for new theorising or sensible but creative reasoning that may be trialled in a doctoral study. Barnett [29] helpfully warns of the negative undertones of *unitary reasoning*—the idea that using a single theory to cover disparate ground obscures more than it clarifies and is therefore a worry that we need to preserve space for different types of reasoning for different academic disciplines at universities.

One line in Barnett's [29] thinking is a fear of a 'thoughtless university' and the erosion of the right to think. One of these is a principle to be upheld, and the former is a concern we also share. Nevertheless, our examination team will be seeking to ascertain the extent to which our candidate outlines their line of reasoning. Let us rewind to a supervisory meeting two years ago, where our fictional supervisor and student are discussing theory selection. Our supervisor says, 'well, in one sense you can select any number of the theories available, look, there are plenty to choose from'. Our candidate, overwhelmed by the options, responds, 'but how do I know which one fits'? 'I suggest you try X theory first and then Y theory, but ultimately you have to choose, I can help explain certain elements to help', replies the supervisor. It would be that kind of encounter that helps bring about the kind of disposition to think critically that would be identified and challenged but rewarded at the examination [32]. This keeps our 'no normal' context intact but preserves a space for sound reasoning. It must be stressed that not anything can count as a reason; disciplinary boundaries and research topics stretch thinly in places, but the awarding of a doctorate will only be made if 'sense' is spoken.

2.3. A Question of Direction: To Be Led or Find Your Own Way?

Research degrees have a different character to taught degrees. Taught degrees typically comprise a highly structured set of modules/units and assignments with subject-specific programmes and learning outcomes, prescribed content and formative and summative assessments. In contrast, a programme of doctoral research and a programme of development through the research is about becoming a fully trained researcher. The disposition to think critically, as we have touched upon, shares more in common with understanding rather than merely obtaining or possessing knowledge [32]. Barnett [29] considers whether we might be able to abandon the notion of curriculum in Higher Education, and it would be fair to say that research degrees just do not have curricula (yes, there will usually be programmes of activities, training, etc., but the term 'curricula' does not seem appropriate here). Being a doctoral student, for Barnett [29], is a 'committed uncertainty', and if teaching/supervising is a provocative matter, there is the likelihood (necessity?) for disruption. Barnett [29] is keen to preserve such a healthy disruption and unsettling as being productive, if not essential for good thinking.

One helpful way to navigate this third guiding question is through an object of comparison. For instance, should the road sign direct the driver? Yes, in one sense, as it would not be a road sign otherwise. The road sign and supervisor have jobs to perform; their jobs are to direct. But critically, the road sign and the supervisor cannot stipulate. The driver can take a different route should they wish, and they might even ignore the sign and follow their SatNav. Similarly, our fictional student does not have to follow the directions and suggestions of the supervisor, but to be a supervisor, the supervisor must at least provide some. Does that mean that the supervisor is a mere sounding board? [15,19] Whilst there might be space and time for such an activity, it is hard to see how that could ever be all and everything that supervision is or was. Our student writes in their thesis acknowledgements that 'Professor P was a great sounding board'; is this the sum account of being a doctoral supervisor? Or does this comment point to the deeper educational influences of the supervisor to nurture doctoral-level learning through research conducted in the hands of their student? [34]. The position advocated by Heidegger [29,30] that learning is a joint undertaking between the student and supervisor leaves useful space for both to learn from their methodological choices and intellectual freedoms, or more broadly, their mistakes and their successes, in the student's ascent to becoming an autonomous researcher.

3. Contact and Involvement: Degrees of Contact in the Learning Relationship

Having considered two crucial aspects of research design, which are topic selection and methodology, our attention will now turn to the second core domain of interest for doctoral supervision: degrees of contact and levels of involvement in the learning relationship.

3.1. A Question of Involvement: Personal or Professional

The student–supervisor relationship in doctoral education has long been understood as a duality, that is, ‘the co-existence of intimacy, care and personal commitment on the one hand, and commitment to specific academic goals on the other’ [35]. Doctoral supervision is no longer viewed as a ‘secret garden’, or an activity that takes place behind closed doors between consenting adults, but rather as an increasingly transparent and more consistent process that reflects contemporary notions of what the doctorate represents and how it should be undertaken [36]. This undoubtedly has implications for good supervisory practice in terms of how student–supervisor interaction is conducted.

Extending the premise that ‘nothing is normal’ [28] in doctoral supervision, and that supervision is invariably person- and project-centred, a crucial ingredient of the ‘learning contract’ involves a mutually established balance between formality and informality in doctoral supervision [37]. Too much formality might cause the student to struggle to develop a sense of belonging and shape their academic voice, whereas too much informality could obscure the professional requirements of the doctoral learning experience. Some fundamental questions remain, however; for instance, what are the hallmarks of a professional (or unprofessional) student–supervisor relationship? And what degree of personal involvement is acceptable (or unacceptable) in the student–supervisor relationship? Who decides the answers to these questions? You? A professional body? Again, these are issues to which the supervisor must pay close attention [38,39].

It is nevertheless important for supervisors to develop a better, and more holistic, understanding of their students, particularly if doctoral supervision aims to provide personalised, professional and productive learning experiences. One way to achieve this holistic understanding is to try and ensure that both the candidate and supervisor are ‘matched’, both academically, meaning both parties have intersecting research interests, and personally, meaning that a strong sense of rapport and trust is established early on [19]. In addition to aligning with discipline-specific norms, supervisors should also develop an appreciation of students’ varied academic competencies, i.e., their limitations, strengths and hidden talents and their wide-ranging psychosocial differences [40]. If supervisors were to treat all doctoral students in exactly the same way, e.g., by adopting a purely project-centred approach, then they could run the risk of overlooking or devaluing the idiosyncratic and socially nuanced aspects of doctoral supervision, through which some students can flourish.

At times, however, students and supervisors can experience a ‘mismatch’ in their expectations, and it is vital that, when this occurs, both parties are able to manage any conflict that arises. Each relationship will be different depending upon the supervisor’s style and the characteristics of the candidate [1]. When these are matched, then there is a basis for a successful relationship; where they are not matched, the relationship can be marred by problems and difficulties, or even break down completely. Cardilini et al. [41] offer four suggestions for both supervisors and students to promote positive outcomes and reduce conflict:

- (1) Supervisors and students should seek to establish their mutual expectations early on in the learning contract.
- (2) Supervisors and students should mutually agree achievable goals to work towards.
- (3) Supervisors should nurture students’ academic independence and collaboration skills.
- (4) Supervisors and students should maintain effective communication and dialogue throughout the process.

It is also vital that supervisors maintain an awareness of the ethical responsibility that comes with the inevitable power imbalance of doctoral supervision [42]. The supervisor–

student relationship can be fragile, unbalanced and unequal because of the perceived dependency of students upon their supervisors to conduct their research [43]. Whilst the development of personal relationships, or *rapprochement*, between supervisors and students can be a healthy aspect of the doctoral learning experience, these relationships must have clearly demarcated boundaries so as to avoid the blurred lines between social and professional relations [14]. As a matter of safeguarding, therefore, supervisors might adopt the following dictum: *friendly but not a friend*. In addition, supervisors must be mindful that doctoral students each have different cultural backgrounds, values and expectations regarding their studies [44], so it is best to recommend a personalised and culturally sensitive supervisory practice.

3.2. A Question of Control: Supervisory Direction versus Student Discovery

At the heart of this question lies a tension and a balance to be found between two opposing supervisory paradigms; on the one hand, some supervisors might assume total responsibility for the doctoral student's academic work and, as a result, could exert a sense of *control* and *surveillance*, whereas other supervisors might grant the student with absolute freedom and autonomy to conduct their research. The traditional view of doctoral supervision has been informed by *expert-disciple* or *master-apprentice* models [45], but more recently, there has been a shift from the 'grey-beard expert' model [37] to more collaborative supervisory styles [46] in which the students are viewed as learning partners. Key questions for any supervisor might include the following: 'which approach is most appropriate, and for whom?', 'why would I adopt one approach over another?' and 'at which point on the student's developmental pathway might I need to adapt my approach, and why?'

The *Supervisor/Student Alignment Model* [47] illustrates how, over time, it is desirable for the supervisor to adopt a 'hands-off' approach in order to decrease students' dependency on the supervisor, but exhibiting this benign neglect too early in the student's development might result in adverse effects. Therefore, it is advisable to strike a balance between these ways of thinking, and to carry this out in a student-centred manner. Assume for a moment that you are supervising two doctoral students: Student A clearly demonstrates that they are 'competently autonomous' very early on and that they are able to navigate the key milestones with minimal intervention on your part; Student B, on the other hand, has an over-inflated sense of competence and requires constant prompting and repeated guidance to progress. Would your supervision of these students be identical? Hopefully not. Whilst the supervisor has a duty to nurture students' autonomy and research self-efficacy [48], they also have a duty of care to the student in becoming 'unstuck' in their studies [49]. These issues highlight the importance of establishing a set of mutual expectations early on in the student-supervisor relationship, spanning the entire spectrum of their doctoral programme, from deciding who is responsible for the initiation of meetings and the provision of research updates to meeting key deadlines and milestones.

3.3. A Question of Progress: Dedication or Termination

The basis of this question is concerned with the ability of the student to learn progressively, or not, which has ethical consequences. If their application for doctoral study was successful, i.e., the project proposal and the student researcher have the potential to complete/be worthy of the award, then the student has a right to doctoral supervision [50]. With equal importance, however, the doctoral supervisor has a right to agree (or disagree) to supervise based on their satisfaction (or dissatisfaction) about the applicant's prospect for a successful completion, and in a reasonable timeframe [1]. After all, by committing to doctoral supervision, the supervisor is aligning part of their professional reputation with the project [51]. Additional reasons why a supervisor may not take on the doctoral supervision of a particular applicant are concerns over their discipline expertise [52], methodological expertise [53], workload capacity [54], incompatibility and personal tensions [55] (Orelana).

Following a successful application to commence with a doctoral programme, and once the supervisory team has been confirmed, assessments of progress and queries about the

student's ability to complete the programme may become more complicated. The supervisors at this point have a professional and ethical obligation to support the student's learning development [56], and while the academic quality of the work must reflect the student's capabilities, the supervisory input will also be reflected in the thesis [57]. The present-day doctoral student needs to be skilled in information literacy [58], and at various stages of their candidature, students will be assessed through formal institutional processes such as Annual Reviews of Progress. Each is an assessment point to continue the doctoral programme. These annual milestones are the crucial 'touch points' for supervisors to have open and honest conversations with their students about their progress. If the supervisor has serious concerns about the permissibility of the student's work, then these are important opportunities to advise the student of their concerns; they can provide early warnings that avoid setting the student up for failure at the examination time. Furthermore, in more extreme cases, if a student displays ongoing under-performance, then the best course of action may be to terminate the doctorate [59]. This, of course, should be avoided where possible and demonstrates the value of an ongoing (annual) assessment of progress. A careful consideration of this path to termination is necessary as the student's view may be that the supervisors are wrong and can challenge their judgements. And what if the student proves to be right? A good tactic to use if a supervision relationship is failing may not be to terminate the research project completely, but rather, to seek to appoint a different supervision team on a monitored timeframe to evaluate progress under the new supervisory conditions.

Some issues relating to a student's withdrawing from doctoral education include random and infrequent meetings between the student and supervisor, thesis goals being unclearly set and too much academic freedom for the student and for the supervisor regarding the research processes [60]. These issues can stem from expectations not being well managed for a given type of learner, when students recount in complaints that they 'were not warned', 'poorly advised' or 'ill-prepared' for their next stages of their doctoral programme [61]. Consequently, establishing shared expectations about the supervisory processes (e.g., the frequency of meetings, clear goal setting and some clarity on the methodological flexibilities and limitations) is of paramount importance.

4. Thesis/Dissertation: Producing a Thesis Worthy of Examination

The production of a thesis document that is completed on time and worthy of doctoral-level examination is the focus of this section. To this end, the student and supervisors must work as a team, setting goals and standards to meet progressive deadlines until the final submission deadline [62]. This is important as there will likely be funding implications for over-running [63,64], or issues concerning the currency of the research itself over a prolonged period of registration [65,66]. However, the students' and supervisors' roles and responsibilities are very different to meet this common end goal of producing a thesis in a timely fashion. Chiefly, this involves supervisors managing the research activities of a student so that the student can write their own thesis. To achieve this, the activities and interests of the student must shift from conducting practical research 'in the field' or in a laboratory about a topic towards communicating what activities they completed to conduct that research and what their findings or critiques are. In short, 'authoring' becomes the focus of scholarship for the student [67]; they communicate in the written word to present what will become a public document—open to public scrutiny [68]. A challenge for both the student and supervisor(s) is finding ways in which the often acknowledged 'messiness' of conducting research [69–71] can be converted into a formal document that logically represents a convincing, original contribution to knowledge. This process is what Pierre Bourdieu used to refer to as 'finding order from the chaos' [72] (see also [73–75] towards finding order and logic through applied social research). Common advice is that practicing writing should not be left to the end of the doctoral programme when the thesis is due [76]. That would likely be too late for the candidate to meet the standards and clarity of explanation required in a doctoral thesis, especially if a timely completion is desired. Therefore, early writing practice is a key expectation to become a doctoral researcher [77,78]. For example, has the student asked for (or do they need) the

structure of progressive deadlines to keep their writing on track, or should supervisors just give the student as much time and freedom they need to complete the work? This is a useful area to discuss in supervision meetings when the doctoral activities are shifting towards the thesis production phase.

i. A question of responsibilities. An important area to establish expectations on, with regard to thesis content, construction and quality, is who takes responsibility for the overall standard of the work? Is it the supervisor's direct responsibility, or should supervisors leave all content, format and presentation decisions to the student? Two tensions come into play when considering this balance of responsibility towards content and quality:

(a) Is the research sponsored or funded by a third party, such as a research council or funding bid, or even a private company? If the research is funded or sponsored in some way, there may be a vested interest by the funder that the research is 'successful' in their eyes and yields worthwhile results. This may not diminish the quality of the research presented in a doctoral thesis, but raises the question of learner integrity and integrity in the process of learning at the doctorate level [79,80], which should be discussed in supervision meetings. Third-party or sponsoring interests are usually declared to examiners and within the doctoral thesis itself. This is the case in the UK [81] and, for example, in the USA [82].

(b) It must be remembered that a doctorate is an academic award where the educational scope for failure through examination is preserved. While it is clear who takes responsibility for the success of a doctoral award when it is conferred, it is often less clear who takes responsibility for its failure. The failure of a doctoral award can, in some cases, lead to formal complaints and appeals for a range of 'outcomes' that were not envisaged or anticipated at the outset of a doctoral programme, but can come to define the end of one for some candidates. For example, there are increasingly reported instances of inadequate supervision [83] or due process not being adhered to in examinations [84] (leading to re-examinations if upheld), loss of earnings [85] (Corbyn), damaged reputation [86], emotional stress [87] and compensation [88]. Therefore, it is good practice in the course of supervision to explain what the outcomes are from the examination and discuss some strategies towards achieving the highest level of outcome [89,90]. (NB: different universities and different countries where the doctorate is registered will differ in this regard [91,92].)

ii. A question of feedback and personal criticism. In the process of the candidate writing their thesis and offering incremental drafts of chapters to supervisors for comment, channels of communication are opened for the delivery of praise and criticism. With this comes the pressures, privileges, opportunities and tactics for good practice, to be demonstrated by both the student and supervisors, that reveals the natural power imbalance between the doctoral learning relationship [93]. Inevitably, *judgements* are being made, *vulnerabilities* are being shared and *initiatives* (or duties) to request and/or give feedback are required to be taken, all of which require some thoughtful consideration and management to keep channels of communication open and productive. More critically, and resulting from 'expert' supervisory feedback and critique, are the incumbent decisions and actions resulting from it—whether the student agrees with it, follows it, ignores it or even if the feedback exposes that the supervisors have different views on a given matter. Either way, decisions about progress still have to be made.

Resulting from formative, ongoing feedback during a doctoral programme are consequences yet to be played out through the sharing of the 'best advice' at the examination time [94], which is the final judgement of how good the work is. However, in mid-project supervisory exchanges, it is important to appreciate that the judgements being made are a two-way exchange and not just about the details or technical content in a draft chapter or final thesis. The student is judging the supervisor on *how well* they give feedback as much as the supervisor is judging the student on *how well* they receive it [95]. From the start, a learning relationship is building, and feelings of acceptance, trust and approval are major considerations for the supervisors to take account of when composing their feedback and critique to the student 'personally', all offered through the lens of the student's written work [96,97]. While being honest about a student's work, a supervisor should allow for

space and time for the student to ‘grow into’ their research [98]. In most cases, a doctoral student is their own harshest critic, so personal feelings of rejection are possible through not being ‘on the right track’ in their thinking, which can become frustrating, if not demoralising for them, especially when they are trying to shape their ‘academic identity’ [99]. Consequently, it is important that supervisors are sympathetic to and supportive of their student, who is showing their vulnerabilities as a learner [100], towards which there is a professional duty of care expected from the supervisors [101–103].

iii. A question of doctoral examinations. The culmination of a doctoral programme is signalled by anticipating and planning for the examination phase, which includes the thesis, plus an oral defence of the thesis called the *viva voce* or ‘living voice’ [104]. Up to this point, it is only the student and the supervisor(s) who have been largely accountable to each other while conducting the research project. That is, they have been in a relatively protected bubble of learning, exchanging perspectives and concerned mainly with practical research matters. However, upon the examination time, the number of interests, expectations and judgements being made increases from being between these two entities to between five entities. As far as managing expectations is concerned, there are suddenly more variables at play as the learning landscape moves from the practical conducting of research to the academic examination of the research (as reported in the thesis) and the assessment of the candidate as a doctoral researcher [105]. It is essential that the supervisors are clear and knowledgeable of the examination process as a whole and of the regulations at their institution to guide their student through this end of the doctoral experience. They also have to be confident that the research product being put forward for examination is of a doctoral standard [106]—given that the best possible outcomes are wished for or expected. The breadth of new constraints or expectations around the examination time include the following:

1. For the student to be ready, i.e., ‘prepared’, to defend their thesis to examiners, does the student ‘really know their stuff’?
2. The supervisor(s) may also feel judged by the examiners for the quality of work they have collectively presented for a doctoral award; reputations are on the line.
3. Then, there is the thesis itself, which is a body of work that obviously did not exist at the start of the programme, but has now been created and has suddenly become the means by which the examiners will make a first impression of the researcher (and the supervisors) and the research project itself—‘is this thesis and candidate worthy of a doctoral award in terms of its presentation, structure, methodological rigour, findings etc? (NB: Upon completion, the thesis, as a public document, becomes the first point of reference for others as to what that student, supervisor and research activities were, long after the programme has been completed.)
4. Then, there is the *viva voce* performance by the student to give an account of their actions as a researcher and respond to probing questions from the examining team—the examiners may be thinking, ‘was the candidate nervous, unprepared and stressed, or were they calm, collected and confident to think on their feet and have an academic discussion about their research?’
5. Finally, there are the various examiners’ expectations of what counts as doctoral-level work, and their assessments of the thesis as it is presented to them—do the student and supervisor *assume* that all of the invited examiners are ‘on the same page’ in their own research attitudes, experiences and perspectives about doctoral work?

In a *viva voce* in the UK, there are usually two examiners for the doctoral thesis, including an internal examiner from the institution where the project is registered, and an external examiner who is independent of the project but may be a specialist in a related area of study. The potential examiners, when they are approached for the role, are required to declare any conflicts of interest with the supervisors and the defending candidate [107]. In the case for members of the academic staff whose research is registered at that institution, they will have two external examiners and one internal examiner. The student must be prepared, i.e., coached, to engage with this unique event, called the *viva voce*, to explain their research to a

panel of selected experts. The panel will usually convene in-person for the *viva voce*, but since the COVID-19 pandemic, examinations are increasingly held online [108].

On the day of the *viva voce*, the number of staff present may also increase further to include an Independent Chair, who is there to support the examiners and the student and to ensure the examination is conducted in accordance with the institutional regulations. It is also possible for the student to invite their Director of Studies (or PI) into the *viva voce* as a silent observer, and additionally, if required, other personnel such as technicians, interpreters or designated support workers, all approved through prior arrangements with the university. The point is that a room for a *viva voce* in the UK, that is staged as a closed or private examination, can sometimes feel quite crowded. The student should be primed and counselled not to feel overwhelmed by the situation, but to feel supported for the best possible outcomes from the examination [109].

In the lead up to the examination, the student will be able to attend training sessions at their institution to prepare for the *viva voce*, and the supervisors and student have the option of staging their own ‘mock viva’, or practice viva, to role play the possible discussions and rehearse explaining various points of the research in an examination setting. Research shows that mock vivas are generally helpful to doctoral students, but supervisors must be aware not to mis-represent the examination process or establish expectations that transpire to be misplaced [110]. For example, it is advised that supervisors resist the temptation of predicting the outcomes of doctoral examinations before the actual *viva voce* has taken place [111,112].

The possible outcomes of the examination should also be discussed with the student and across the supervision team. The student needs to know the possibilities of assessment that can be awarded from the examination process. They also need to know, in order to manage their expectations, how long the examination phase can take and what stages it comprises. In the UK (other countries and institutions may vary), the outcomes generally range from passing with no corrections or modifications (no extra time required—the thesis is good), to passing with minor modifications (up to 3 months to make good in the thesis), to passing with major modifications (up to 6 months to make good in the thesis). In the event of not passing on the day of the *viva voce* but still being allowed to make good with more extensive modifications, the candidate can present their thesis up to 12 months later for re-examination. This is the resubmission outcome, which can be provided with or without another *viva voce* as the examiners decide. It is also possible for the examiners to bypass the resubmission outcome and award an MPhil or another masters-level award as they deem appropriate, or as the institution permits. It is also possible to fail the doctoral examination outright.

Towards managing expectations around the examination phase of a doctoral programme, there is a dynamic shift in whose expectations are to be met. Broadly speaking, the spectre of ‘what the examiners may want’ will be featured in supervision meetings when ideas for selecting and appointing examiners take place. This can be up to a year part-time, or 6 months full-time, before the final thesis submission date. Then, there is the moment of submitting the thesis, and effective judgements from that point forward are firmly out of the supervisors’ hands. For the student and the supervisors, this is a period of ‘letting go’ of the work and preparing themselves for what may follow after the *viva voce*, which usually takes places up to 2 or 3 months after submission. Something that students and supervisors should prepare for is that the outcomes from the *viva voce* (minors, majors, resubmissions, etc.) may or may not be what they were expecting. The dynamic shift is that at this point, post *viva voce*, the examiners are ‘calling the shots’ by dictating their expectations in a list of modifications and corrections for the student under supervision to make good in the thesis to be ready for re-assessment. In the process of making these corrections for the examiners, the supervisors will once again have to manage the expectations of their student in their collective endeavour to satisfy these new requirements. A challenge during this episode of the examination phase is the ostensible shift in the ‘learning contract’, that is, that the student has spent years working towards the expectations of their supervisors,

and suddenly both the student and the supervisors are working towards the expectations of the examiners. A question to consider is whether the student and supervisors actually agree with the modifications and corrections being asked for. However, it should be borne in mind that the examiners' requirements at this stage are, to a large extent, non-negotiable.

One further aspect of managing expectations on the day of the student's *viva voce* defence is the important role of the Independent Chair (IC), mentioned above. The IC is, as the name suggests, independent of the candidate, the supervisors and the examiners. An IC will have the experience of conducting many doctoral examinations at their institution to fulfil this quality assurance role [113]. They are not present at every *viva voce*; they are usually appointed to support a new internal examiner, although there may be other instances where ICs are present. They do not read the thesis and they do not have any influence in determining the quality of research in the thesis. However, they can draw upon their experiences to remind the examiners of the institutional expectations that inform their decisions concerning outcome classifications and the extent of modifications they wish to recommend. For an IC, a useful means of calibrating examiners' expectations in their moment of judgement is to remind them of Gerry Mullins' and Margaret Kiley's [114] take on things, that '*It's a PhD, not a Nobel Prize*', which helps to bring sights back to the doctoral learning endeavour they are judging. Another common point for an IC is to remind the examiners that the examination is a two-part process whereby the thesis and the *viva voce* performance should jointly inform their decisions about possible outcomes. That is, what light the *viva voce* has shone on the understanding of the work that was not perhaps so evident from reading the thesis alone. Modifications often stem from striving for clarity on certain aspects that became clear during the *viva voce*. Whatever the outcome of the examination phase of the doctoral programme, one thing is for sure—every *viva voce* is different, and 'nothing's normal'. Therefore, managing the expectations of all parties will improve the learning experience of the doctoral candidate and also improve the learning of all colleagues involved in the doctoral study generally [115–117].

5. Conclusions

In this entry paper, we highlighted a range of possible and potential expectations around doctoral supervision that relate to the management of learning through research. A take-home message from our offering is to raise awareness of the variety of considerations, judgements and expectations that is possible to have at different points within a doctoral programme. If we return to our fictitious student, they might say, 'I did not know that was an expectation I was able to have' on this matter or that. Equally, the same might be said for the neophyte doctoral supervisor who may be relying on following the examples of 'how to supervise' from other colleagues who, critically, may not have raised and discussed a range of expectations in the same or similar manner as we have here. We hope to have equipped the reader with some good reasons and best practice strategies to maximise learning and increase the enjoyment obtained from the doctoral experience. We believe that the benefits of managing expectations early, and throughout the doctoral programme, outweigh the consequences of leaving these aspects of the 'learning relationship' entirely to chance.

Author Contributions: Conceptualisation and structure, C.P.; topic selection, C.H.; contact and involvement, A.S.; thesis/dissertation and examination, C.P.; writing—original draft preparation, C.P., C.H. and A.S.; writing—review and editing, C.P., C.H. and A.S.; project administration, C.P. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Taylor, S.; Kiley, M.; Humphrey, R.A. *Handbook for Doctoral Supervisors*, 2nd ed.; Routledge: Abingdon, UK, 2017.
2. Benmore, A. Boundary management in doctoral supervision: How supervisors negotiate roles and role transitions throughout the supervisory journey. *Stud. High. Educ.* **2014**, *41*, 1251–1264. [CrossRef]
3. McAlpine, L. Doctoral supervision: Not an individual but a collective institutional responsibility. *J. Study Educ. Dev.* **2013**, *36*, 259–280. [CrossRef]
4. Kotter, J.P. The Psychological Contract: Managing the Joining-up Process. *Calif. Manag. Rev.* **1973**, *15*, 91–99. [CrossRef]
5. Chickering, A.W.; Gamson, Z.F. *Seven Principles for Good Practice in Undergraduate Education*; American Association for Higher Education AAHE Bulletin: Washington, DC, USA, 1987; pp. 3–7.
6. Paul, R.J.; Niehoff, B.P.; Turnley, W.H. Empowerment, expectations, and the psychological contract—Managing the dilemmas and gaining the advantages. *J. Socio-Econ.* **2000**, *29*, 471–485. [CrossRef]
7. Hall, D.T.; Otao, K.L.; Hollenbeck, G.P. Behind closed doors: What really happens in executive coaching. *Organ. Dyn.* **1999**, *27*, 39–53. [CrossRef]
8. Pearson, M. Professionalising Ph.D. education to enhance the quality of the student experience. *High. Educ.* **1996**, *32*, 303–320. [CrossRef]
9. HESA: Higher Education Student Statistics: UK, 2021/22—Student Numbers and Characteristics. HESA. Available online: <https://www.hesa.ac.uk/news/19-01-2023/sb265-higher-education-student-statistics/numbers> (accessed on 10 July 2023).
10. UKCGE: UK Council for Graduate Education. Another Increase in Number of Students Taking up Postgraduate Taught Degrees OfS Data Reports. 2018. Available online: <https://ukcge.ac.uk/news-and-blog/another-increase-in-number-of-students-taking-up-postgraduate-taught-degrees-ofs-data-reports> (accessed on 10 July 2023).
11. Smith-McGloin, R.; Wynne, C. *Structures and Strategy in Doctoral Education in the UK and Ireland*; UKCGE: UK Council for Graduate Education: Litchfield, UK, 2022.
12. Postgraduate Research Experience Survey (PRES). Provides Robust, Benchmark Data from a Large Number of Institutions across the UK and beyond to Drive Enhancement of the Postgraduate Research Experience. Advance HE, York, UK. Available online: <https://www.advance-he.ac.uk/reports-publications-and-resources/postgraduate-research-experience-survey-pres> (accessed on 10 July 2023).
13. Wisker, G.; Exley, K.; Antoniou, M.; Ridley, P. *One-to-One with Students: Supervising, Coaching, Mentoring, and Personal Tutoring*; Routledge: Abingdon, UK, 2008.
14. Parker-Jenkins, M. Mind the gap: Developing the roles, expectations and boundaries in the doctoral supervisor-supervisee relationship. *Stud. High. Educ.* **2018**, *43*, 57–71. [CrossRef]
15. Lee, A. New approaches to doctoral supervision: Implications for educational development. *Educ. Dev.* **2010**, *11*, 18–23.
16. Lee, A. How are doctoral students supervised? Concepts of doctoral research supervision. *Stud. High. Educ.* **2008**, *33*, 267–281. [CrossRef]
17. Bui, H.T. Student–supervisor expectations in the doctoral supervision process for business and management students. *Bus. Manag. Educ. High. Educ.* **2014**, *1*, 12–27. [CrossRef]
18. Gatfield, T. An Investigation into PhD Supervisory Management Styles: Development of a dynamic conceptual model and its managerial implications. *J. High. Educ. Policy Manag.* **2005**, *27*, 311–325. [CrossRef]
19. Polkinghorne, M.; Taylor, J.; Knight, F.; Stewart, N. Doctoral supervision: A best practice review. *Encyclopedia* **2023**, *3*, 46–59. [CrossRef]
20. Jackson, D.; Power, T.; Usher, K. Learning to be a doctoral supervisor: Experiences and views of nurse supervisors of higher degree research students. *J. Clin. Nurs.* **2021**, *30*, 1060–1069. [CrossRef] [PubMed]
21. Holbrook, A.; Shaw, K.; Scevak, J.; Bourke, S.; Cantwell, R.; Budd, J. PhD candidate expectations: Exploring mismatch with experience. *Int. J. Dr. Stud.* **2014**, *9*, 329–346. [CrossRef] [PubMed]
22. Hair, M. Superqual: A tool to explore the initial expectations of PhD students and supervisors. *Act. Learn. High. Educ.* **2006**, *7*, 9–23. [CrossRef]
23. Brown, G.; Atkins, M. ‘Role perception Questionnaire’. In *Effective Teaching in Higher Education*; Methuen: London, UK, 1988.
24. Brown, G.; Atkins, M. *Effective Teaching in Higher Education*; Methuen: London, UK, 1988.
25. Taylor, S. Research Supervision Recognition Programme Guide to Reflection. 2019. Available online: <https://ukcge.ac.uk/assets/resources/Guide-to-Reflection-Recognised-Research-Supervisor-Award.pdf> (accessed on 10 July 2023).
26. UKRI (UK Research and Innovation) Commissioned Report on Research Supervision—Key Findings from UK Council for Graduate Education (UKCGE) Research on How UKRI Could Better Support Research Supervision. October 2022. Available online: <https://ukcge.ac.uk/resources/resource-library/ukri-commissioned-report-on-research-supervision> (accessed on 10 July 2023).
27. Gower, O. *UK Research Supervision Survey 2021 Report*; UK Council for Graduate Education (UKCGE): Lichfield, UK, 2021.
28. Hopwood, N.; Alexander, P.; Harris-Huermert, S.; McAlpine, L.; Wagstaff, S. *The hidden realities of life as a doctoral student In Doctoral Education in International Context: Connecting Local, Regional and Global Perspectives*; Kumar, V., Lee, A., Eds.; Universiti Putra Malaysia Press: Serdang, SGR, Malaysia, 2011; Chapter 10; pp. 214–233.
29. Barnett, R. *The Philosophy of Higher Education: A Critical Introduction*; Routledge: London, UK, 2022.
30. Heidegger, M. *What Is Called Thinking?* Harper Collins: New York, NY, USA, 2004.

31. Palmer, C. Fostering Freedom in PhD Students: How Supervisors Can Shape Accessible Paths for Doctoral Research. *THE Campus Times Higher Education*, 16 November 2021. Available online: <https://www.timeshighereducation.com/campus/fostering-freedom-phd-students-how-supervisors-can-shape-accessible-paths-doctoral-research> (accessed on 16 May 2023).
32. Facione, P.; Facione, N.C.; Giancarlo, C.A. The disposition toward critical thinking: Its character, measurement, and relationship to critical thinking skill. *Informal Log.* **2000**, *20*, 61–84. [\[CrossRef\]](#)
33. Bakhurst, D. *The Formation of Reason*; Blackwell: Maldon, MA, USA; Chichester, UK, 2011.
34. Palmer, C. Supervision: 20:20 clarity or blurred view of care? *J. Qual. Res. Sports Stud.* **2011**, *5*, 159–170.
35. Hockey, J. A contractual solution to problems in the supervision of PhD degrees in the UK. *Stud. High. Educ.* **1996**, *21*, 359–371. [\[CrossRef\]](#)
36. Park, C. New variant PhD: The changing nature of the doctorate in the UK. *J. High. Educ. Policy Manag.* **2005**, *27*, 189–207. [\[CrossRef\]](#)
37. Hemer, S.R. Informality, power and relationships in postgraduate supervision: Supervising PhD candidates over coffee. *High. Educ. Res. Dev.* **2012**, *31*, 827–839. [\[CrossRef\]](#)
38. Gill, P.; Burnard, P. The student-supervisor relationship in the PhD/Doctoral process. *Br. J. Nurs.* **2008**, *17*, 668–671. [\[CrossRef\]](#)
39. Prazeres, F. PhD supervisor-student relationship. *J. Adv. Med. Educ. Prof.* **2017**, *5*, 213–214.
40. van Rooij, E.; Fokkens-Bruinsma, M.; Jansen, E. Factors that influence PhD candidates' success: The importance of PhD project characteristics. *Stud. Contin. Educ.* **2019**, *43*, 48–67. [\[CrossRef\]](#)
41. Cardilini, A.P.; Risely, A.; Richardson, M.F. Supervising the PhD: Identifying common mismatches in expectations between candidate and supervisor to improve research training outcomes. *High. Educ. Res. Dev.* **2021**, *41*, 613–627. [\[CrossRef\]](#)
42. Grant, B. Mapping the pleasures and risks of supervision. *Discourse Stud. Cult. Politics Educ.* **2003**, *24*, 175–190. [\[CrossRef\]](#)
43. Khan, T.; Mikuska, E. The relationship between the supervisors and the supervisee: Experiences of PhD completers. *J. Appl. Tech. Educ. Sci.* **2023**, *12*, 1–12.
44. Pinto, S. Encounters of cultures in doctoral supervision: Productive or problematic? *Rev. Lusófona Educ.* **2020**, *48*, 151–167.
45. Le, M.; Pham, L.; Kim, K.; Bui, N. The impacts of supervisor—PhD student relationships on PhD students' satisfaction: A case study of Vietnamese universities. *J. Univ. Teach. Learn. Pract.* **2021**, *18*, 269–285. [\[CrossRef\]](#)
46. Wisker, G.; Robinson, G.; Shacham, M. Postgraduate research success: Communities of practice involving cohorts, guardian supervisors and online communities. *Innov. Educ. Teach. Int.* **2007**, *44*, 301–320. [\[CrossRef\]](#)
47. Gurr, G. M Negotiating the 'Rackety Bridge'—A dynamic model for aligning supervisory style with research student development. *High. Educ. Res. Dev.* **2001**, *20*, 81–92. [\[CrossRef\]](#)
48. Overall, N.C.; Deane, K.L.; Peterson, E.R. Promoting doctoral students' research self-efficacy: Combining academic guidance with autonomy support. *High. Educ. Res. Dev.* **2011**, *30*, 791–805. [\[CrossRef\]](#)
49. Kiley, M. Identifying threshold concepts and proposing strategies to support doctoral candidates. *Innov. Educ. Teach. Int.* **2009**, *46*, 293–304. [\[CrossRef\]](#)
50. Brabazon, T. Winter is coming: Doctoral supervision in the neoliberal university. *Int. J. Soc. Sci. Educ. Stud.* **2016**, *3*, 14.
51. Mangematin, V. PhD job market: Professional trajectories and incentives during the PhD. *Res. Policy* **2000**, *29*, 741–756. [\[CrossRef\]](#)
52. Ali, J.; Ullah, H.; Sanauddin, N. Postgraduate research supervision: Exploring the lived experience of Pakistani postgraduate students. *FWU J. Soc. Sci.* **2019**, *13*, 14–25.
53. Watts, J.H. Team supervision of the doctorate: Managing roles, relationships and contradictions. *Teach. High. Educ.* **2010**, *15*, 335–339. [\[CrossRef\]](#)
54. Askew, C.; Dixon, R.; McCormick, R.; Callaghan, K.; Wang, G.Y.; Shulruf, B. Facilitators and barriers to doctoral supervision: A case study in health sciences. *Issues Educ. Res.* **2016**, *26*, 1–9. [\[CrossRef\]](#)
55. Orellana, M.L.; Darder, A.; Pérez, A.; Salinas, J. Improving doctoral success by matching PhD students with supervisors. *Int. J. Dr. Stud.* **2016**, *11*, 87–103. [\[CrossRef\]](#) [\[PubMed\]](#)
56. Löfström, E.; Pyhältö, K. Ethical issues in doctoral supervision: The perspectives of PhD students in the natural and behavioral sciences. *Ethics Behav.* **2014**, *24*, 195–214. [\[CrossRef\]](#)
57. Almusaed, A.; Almssad, A. The Role of the Supervisor on Developing PhD Students' Skills. In Proceedings of the International Society for Technology, Education, and Science. International Conference on Humanities, Social and Education Sciences, Washington, DC, USA, 15–16 July 2020.
58. Ince, S.; Hoadley, C.; Kirschner, P.A. The role of libraries in teaching doctoral students to become information-literate researchers: A review of existing practices and recommendations for the future. *Inf. Learn. Sci.* **2019**, *120*, 158–172. [\[CrossRef\]](#)
59. Turner, G. Learning to supervise: Four journeys. *Innov. Educ. Teach. Int.* **2015**, *52*, 86–98. [\[CrossRef\]](#)
60. Frischer, J.; Larsson, K. Laissez-faire in research education—An inquiry into a Swedish doctoral program. *High. Educ. Policy* **2000**, *3*, 131–155. [\[CrossRef\]](#)
61. Upton, B. 'Keep Academics without People Skills Away' from PhD Supervision. *THE Campus Times Higher Education*, 1 March 2023. Available online: <https://www.timeshighereducation.com/news/keep-academics-without-people-skills-away-phd-supervision> (accessed on 20 July 2023).
62. Bulat, A. *The UCL Good Supervision Guide*; University College London: London, UK, 2018.
63. Horta, H.; Cattaneo, M.; Meoli, M. The impact of Ph.D. funding on time to Ph.D. completion. *Res. Eval.* **2019**, *1*, rvz002. [\[CrossRef\]](#)

64. UKRI: Review of EPSRC-Funded Doctoral Education [Engineering and Physical Sciences Research Council]. 2021. Available online: <https://www.ukri.org/wp-content/uploads/2021/10/EPSRC-071021-ReviewDoctoralEducationSupport.pdf> (accessed on 15 July 2023).
65. Shojania, K.G.; Sampson, M.; Ansari, M.T.; Ji, J.; Doucette, S.; Moher, D. How quickly do systematic reviews go out of date? A survival analysis. *Ann. Intern. Med.* **2007**, *147*, 224–233. [CrossRef]
66. van de Schoot, R.; Yerkes, M.A.; Mouw, J.M.; Sonneveld, H. What took them so long? Explaining PhD delays among doctoral candidates. *PLoS ONE* **2013**, *8*, e68839. [CrossRef] [PubMed]
67. Lei, J.; Hu, G. Apprenticeship in Scholarly Publishing: A Student Perspective on Doctoral Supervisors' Roles. *Bus. Manag. Educ. High. Educ.* **2015**, *3*, 27–42. [CrossRef]
68. Murray, R. *How to Write a Thesis*; Open University Press: Maidenhead, UK, 2002.
69. Postill, J.; Pink, S. Social media ethnography: The digital researcher in a messy web. *Media Int. Aust.* **2012**, *145*, 123–134. [CrossRef]
70. Jenkins, R.; Molesworth, M.; Scullion, R. The messy social lives of objects: Inter-personal borrowing and the ambiguity of possession and ownership. *J. Consum. Behav.* **2014**, *13*, 131–139. [CrossRef]
71. Gray, R. Of messiness, systems and sustainability: Towards a more social and environmental finance and accounting. *Br. Account. Rev.* **2002**, *34*, 357–386. [CrossRef]
72. Bourdieu, P. Social space and symbolic power. *Sociol. Theory* **1989**, *7*, 14. [CrossRef]
73. Emirbayer, M.; Williams, E.M. Bourdieu and social work. *Soc. Serv. Rev.* **2005**, *79*, 689–724. [CrossRef]
74. Fuchs, C. Some Implications of Pierre Bourdieu's Works for a Theory of Social Self Organization. *Eur. J. Soc. Theory* **2003**, *6*, 387–408. [CrossRef]
75. Bourdier, P. *The Logic of Practice*; Polity Press: Cambridge, UK, 1992.
76. Odena, O.; Burgess, H. How doctoral students and graduates describe facilitating experiences and strategies for their thesis writing learning process: A qualitative approach. *Stud. High. Educ.* **2015**, *42*, 572–590. [CrossRef]
77. Manathunga, C. Early warning signs in postgraduate research education: A different approach to ensuring timely completions. *Teach. High. Educ.* **2005**, *10*, 219–233. [CrossRef]
78. Platow, M.J. PhD Experience and Subsequent Outcomes: A Look at Self-Perceptions of Acquired Graduate Attributes and Supervisor Support. *Stud. High. Educ.* **2012**, *37*, 103–118. [CrossRef]
79. Centre for Academic Integrity. The Fundamental Values of Academic Integrity. 1999. Available online: <http://www.academicintegrity.org/ica/assets/FVProject.pdf> (accessed on 18 July 2023).
80. Link, K.; Müller, B. Multiple-party funding: Tensions and related consequences for academic research in Europe. *Rev. Manag. Sci.* **2019**, *14*, 417–445. [CrossRef]
81. NIH Financial Conflict of Interest (FCOI) Policy. University College London. 2020. Available online: <https://www.ucl.ac.uk/research-innovation-services/generic-information/researchers-toolkit/nih-financial-conflict-interest-fcoi-policy> (accessed on 18 July 2023).
82. Conflict of Interest in Sponsored Research. Princeton University. 2023. Available online: <https://dof.princeton.edu/governance/policies/conflict-interest-sponsored-research> (accessed on 18 July 2023).
83. Vora, V. How to Deal with Inadequate PhD Supervision. *THE Campus Times Higher Education*, 25 October 2018. Available online: <https://www.timeshighereducation.com/blog/how-deal-inadequate-phd-supervision> (accessed on 18 July 2023).
84. Gibney, E. The Viva... Do You Think This Is Working? *THE Campus Times Higher Education*, 25 April 2013. Available online: <https://www.timeshighereducation.com/do-you-think-this-is-working/2003363.article> (accessed on 18 July 2023).
85. Corbyn, Z. Biting the complaint bullet. *THE Campus Times Higher Education*, 4 June 2009. Available online: <https://www.timeshighereducation.com/news/biting-the-complaint-bullet/406809.article> (accessed on 18 July 2023).
86. Attwood, R. Student Complaint Results Will Identify Institutions. *THE Campus Times Higher Education*, 11 February 2010. Available online: <https://www.timeshighereducation.com/news/student-complaint-results-will-identify-institutions/410355.article> (accessed on 18 July 2023).
87. Bates, I. How to Change Research Cultures to Support the Well-Being of PhD Students. *THE Campus Times Higher Education*, 15 December 2022. Available online: <https://www.timeshighereducation.com/campus/how-change-research-cultures-support-wellbeing-phd-students> (accessed on 18 July 2023).
88. Williams, T. Student Complaints: Universities Pay out More than £1 Million. *THE Campus Times Higher Education*, 20 April 2023. Available online: <https://www.timeshighereducation.com/news/student-complaints-universities-pay-out-more-ps1-million> (accessed on 18 July 2023).
89. Houston, G. A Study of the PhD Examination: Process, Attributes and Outcomes. Ph.D. Thesis, Oxford University Research Archive, Oxford, UK, 2018. Available online: <https://ora.ox.ac.uk/objects/uuid:07291f0e-e80b-4b06-a6af-b3ac8b90a00e> (accessed on 18 July 2023).
90. van Teijlingen, E.; Simkhada, B.; Regmi, P.; Simkhada, P.; Hundley, V.; Poudel, K.C. Reflections on Variations in PhD Viva Regulations: 'And the Options Are ...'. *J. Educ. Res.* **2022**, *12*, 61–74. [CrossRef]
91. Taylor, S.; Kiley, M.; Holley, K.A. *The Making of Doctoral Supervisors: International Case Studies of Practice*; Routledge: London, UK, 2021.
92. Holbrook, A.; Bourke, S. An investigation of PhD examination outcome in Australia using a mixed method approach. *Australian J. Educ. Dev. Psychol.* **2004**, *4*, 153–169.

93. Larcombe, W.; McCosker, A.; O'Loughlin, K. Supporting education PhD and DEd students to become confident academic writers: An evaluation of thesis writers' circles. *J. Univ. Teach. Learn. Pract.* **2007**, *4*, 61–71. Available online: <https://ssrn.com/abstract=2126912> (accessed on 20 July 2023). [\[CrossRef\]](#)
94. Carter, S.; Kumar, V. 'Ignoring me is part of learning': Supervisory feedback on doctoral writing. *Innov. Educ. Teach. Int.* **2016**, *54*, 68–75. [\[CrossRef\]](#)
95. Wang, T.; Li, L.Y. 'Tell me what to do' vs. 'guide me through it': Feedback experiences of international doctoral students. *Act. Learn. High. Educ.* **2011**, *12*, 101–112. [\[CrossRef\]](#)
96. Paré, A. Speaking of Writing: Supervisory Feedback and the Dissertation. In *Doctoral Education: Research-Based Strategies for Doctoral Students, Supervisors and Administrators*; McAlpine, L., Amundsen, C., Eds.; Springer: Dordrecht, The Netherlands, 2011; pp. 59–74. [\[CrossRef\]](#)
97. Campo, G.; Castello, M. Writing in doctoral programs: Examining supervisors' perspectives. *High. Educ.* **2018**, *76*, 387–401.
98. Read, D.; Palmer, C. Growing with your research. *J. Qual. Res. Sports Stud.* **2020**, *14*, 147–186.
99. Inouye, K.; McAlpine, L. Developing academic identity: A review of the literature on doctoral writing and feedback. *Int. J. Dr. Stud.* **2019**, *14*, 001–031. [\[CrossRef\]](#) [\[PubMed\]](#)
100. Diezmann, C.M. Supervision and scholarly writing: Writing to learn—Learning to write. *Reflective Pract.* **2005**, *6*, 443–457. [\[CrossRef\]](#)
101. Mangione, D.; Norton, L. Problematising the notion of 'the excellent teacher': Daring to be vulnerable in higher education. *Teach. High. Educ.* **2020**, *28*, 373–388. [\[CrossRef\]](#)
102. Gregory, K.H.; Diacopoulos, M.M.; Branyon, A.; Butler, B.M. From skepticism to scholarship: Learning and living self-study research in a doctoral seminar. *Stud. Teach. Educ.* **2017**, *13*, 257–274. [\[CrossRef\]](#)
103. Crossouard, B.; Pryor, J. Becoming researchers: A sociocultural perspective on assessment, learning and the construction of identity in a professional doctorate. *Pedagog. Cult. Soc.* **2008**, *16*, 221–237. [\[CrossRef\]](#)
104. Hickman, M.; Palmer, C. Viva Voce: The living voice (of criticism). *J. Qual. Res. Sports Stud.* **2011**, *5*, 141–150.
105. Watts, J.H. Preparing doctoral candidates for the viva: Issues for students and supervisors. *J. Furth. High. Educ.* **2012**, *36*, 371–381. [\[CrossRef\]](#)
106. AQA. Advice on Doctoral Standards for Research Students and Supervisors. *Quality Assurance Agency*. 2019. Available online: <https://www.qaa.ac.uk/news-events/news/qaa-publishes-new-advice-on-doctoral-standards-for-research-students-and-supervisors> (accessed on 18 July 2023).
107. Conflicts of Interest in Postgraduate Supervision. University of Sheffield. 2023. Available online: <https://www.sheffield.ac.uk/research-services/code/supervision/conflicts-interest> (accessed on 18 July 2023).
108. Wisker, G.; Highman, L.; Spronken-Smith, R.; Waghorne, J. Across time and space: Examiner and candidate experiences of online doctoral vivas. *Innov. Educ. Teach. Int.* **2022**, *59*, 131–141. [\[CrossRef\]](#)
109. Stott, T. Viva survival: Some personal thoughts on the PhD viva from a professor and external examiner. *J. Qual. Res. Sports Stud.* **2011**, *5*, 175–180.
110. Bedwell, S. Participating in a Mock Viva. In *How to Excel in Your Doctoral Viva*. Palgrave Macmillan; Springer International Publishing: Cham, Switzerland, 2022; pp. 159–169. [\[CrossRef\]](#)
111. Hartley, J.; Fox, C. Assessing the mock viva: The experiences of British doctoral students. *Stud. High. Educ.* **2004**, *29*, 727–738. [\[CrossRef\]](#)
112. Tinkler, P.; Jackson, C. In the dark? Preparing for the PhD viva. *Qual. Assur. Educ.* **2002**, *10*, 86–97. [\[CrossRef\]](#)
113. Poole, B.R. Examining the doctoral viva: Perspectives from a sample of UK Academics. *Lond. Rev. Educ.* **2015**, *13*, 92–105. [\[CrossRef\]](#)
114. Mullins, G.; Kiley, M. 'It's a PhD, not a Nobel Prize': How experienced examiners assess research theses. *Stud. High. Educ.* **2002**, *27*, 369–386. [\[CrossRef\]](#)
115. Masek, A.; Alias, M. A review of effective doctoral supervision: What is it and how can we achieve it? *Univers. J. Educ. Res.* **2020**, *8*, 2493–2500. [\[CrossRef\]](#)
116. Bastalich, W. Content and context in knowledge production: A critical review of doctoral supervision literature. *Stud. High. Educ.* **2015**, *42*, 1145–1157. [\[CrossRef\]](#)
117. Sambrook, S. Managing the Psychological Contract within Doctoral Supervisory Relationships. In *Emerging Directions in Doctoral Education—Innovations in Higher Education Teaching and Learning*; Emerald Group Publishing: Bingley, UK, 2016; Volume 6, pp. 61–87. [\[CrossRef\]](#)

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.