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**Marvell, Alan D ORCID logoORCID: <https://orcid.org/0000-0001-8363-0793> and Livesey, Louise ORCID logoORCID: <https://orcid.org/0000-0003-4571-8676> (2025) Experiences of Online and In-Person Learning: A Case Study of Doctoral Education. Social Sciences, 14 (11). pp. 1-21.
doi:10.3390/socsci14110660**

Official URL: <https://doi.org/10.3390/socsci14110660>
DOI: <http://dx.doi.org/10.3390/socsci14110660>
EPrint URI: <https://eprints.glos.ac.uk/id/eprint/15527>

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Article

Experiences of Online and In-Person Learning: A Case Study of Doctoral Education

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Abstract

Teaching in a globalised world offers opportunities to reduce barriers, enhance understanding, and expand access for diverse learners. Blended approaches, combining in-person and online delivery, can encourage learning communities across geographical boundaries. However, disparities in access to technology, internet reliability, and conducive study environments highlight inequalities and varied learner experiences. While digital networks may support identity and belonging, some students report feeling distracted or disengaged in online settings. This study explores the experiences of first-year doctoral candidates completing the final taught module of their Doctorate in Business Administration (DBA) at the University of Gloucestershire, UK. Participants, mostly international students now based in the UK, are engaged in both in-person classes and online staff-led webinars. Data was gathered through four in-person focus groups. Engeström's Cultural-Historical Activity Theory was applied as an analytical framework, conceptualising teaching and learning as an activity system mediated by Tools, Rules, Community, and Division of Labour. This enabled a comparison of students' experiences in online and in-person contexts. The findings revealed contradictions within the system, identifying barriers to engagement and adaptation, and offering insights into the evolving pedagogical demands of blended doctoral education.



Academic Editor: Heying Jenny Zhan

Received: 26 July 2025

Revised: 26 October 2025

Accepted: 4 November 2025

Published: 10 November 2025

Citation: Marvell, Alan, and Louise Livesey. 2025. Experiences of Online and In-Person Learning: A Case Study of Doctoral Education. *Social Sciences* 14: 660. <https://doi.org/10.3390/socsci14110660>

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Keywords: online learning; in-person learning; blended learning; activity theory; pedagogy; doctoral education; Doctorate in Business Administration (DBA)

1. Introduction

As Higher Education institutions increasingly adopt blended learning formats, questions emerge about how these pedagogies influence student engagement, particularly in postgraduate contexts. While the integration of online and in-person modes can promote flexibility and connectedness, it may also lead to fragmented experiences among learners. By applying Activity Theory (Engeström 1987, 2001), this study explores the engagement of first-year Doctorate in Business Administration (DBA) candidates at the University of Gloucestershire, UK, comparing the opportunities and limitations of blended delivery across international cohorts.

Doctoral education is important because, rather than merely transmitting knowledge, it facilitates a critical exchange between students and their tutors within an academic discipline to co-create opportunities for research and deeper learning (Lee and Danby 2012). As a result, doctoral study has a defining set of characteristics:

All UK doctorates, regardless of their form, continue to require the main focus of the candidate's work to demonstrate an original contribution to knowledge in their subject, field or profession, through original research or the original application of existing knowledge or understanding. Doctorates are delivered through a range of models and modes. Part-time and distance learning are common. (Quality Assurance Agency for Higher Education (QAA) 2020, p. 3)

The perspectives of doctoral students are being used to improve and enhance academic programmes (Addae and Kwapong 2023; Skipp 2024). However, there is a shortage of studies focusing on the experiences and opinions of doctoral students engaged in blended learning. Further investigation is needed to understand how (these) students perceive and navigate educational environments which combine traditional in-person and online modes of learning (Deroncele-Acosta et al. 2025). Increasing demand for flexible and blended learning, particularly amongst postgraduate students, has led to the development of online programmes, driven by increasing affordability, improving accessibility, expanding programme offerings, and the need for ongoing professional development (Bennett et al. 2020). These have all been influenced by technological improvements and the impact of the COVID-19 pandemic (Turner et al. 2023).

Some universities offer a blended approach that combines discrete elements of in-person and online learning (Saichaie 2020). Such programmes integrate synchronous online sessions with in-person meetings, allowing professionals to engage in training that fits around their work schedules and personal commitments. This approach provides the convenience of online learning and facilitates interactions and networking opportunities during in-person sessions (Xiao et al. 2020). Others offer a hybrid or HyFlex model of delivery, where students can opt to participate in synchronous sessions either in-person or online (Howell et al. 2024). Although this gives students greater flexibility, it is often challenging for the tutor, as learning activities that work well in a classroom environment do not always translate effectively to a digital environment (Lee and Danby 2012). It also poses institutional issues, as some international students have visa requirements that require in-person attendance, while others are exempt, thus institutions must create modes of attendance that are tailored to the students' visa requirements. As institutions continue to diversify their delivery models, they must reconcile the pedagogical, logistical, and regulatory tensions that arise, otherwise, the promise of flexibility may come at the cost of equitable and effective learning.

This study focuses on students pursuing a Doctor of Business Administration (DBA). The DBA is a research-based degree for practising managers who seek to develop professional practice alongside a contribution to a body of knowledge. Recognised as a professional or practitioner doctorate, it is regarded as the highest academic qualification, equivalent in standard to a PhD (Doctorate of Philosophy) (Rigg et al. 2021). Professional doctorates, such as the DBA (Doctorate in Business Administration), EdD (Doctorate in Education), and EngD (Doctorate in Engineering), are typically differentiated from traditional PhDs by their focus on developing research-focused professionals rather than developing professional researchers (Goodall et al. 2017). They usually require candidates to begin with a practical problem related to their specialised field that demands critical investigation and resolution (Simpson and Sommer 2016).

There has been a growing internationalisation of doctoral education (Jones et al. 2024) and a significant increase in professional doctorates in countries such as the UK, the USA, Canada, and Australia (Kot and Hendel 2011). They range from those based on coursework and discipline-based theses to others designed in collaboration with employers, including research conducted in the workplace (Kumar and Dawson 2013). In recent years, there has been a shift towards a structured and collaborative curriculum and a team-based approach

to supervision that focuses on current issues and work-based challenges (McKenna and van Schalkwyk 2023). Research topics are often interdisciplinary and require a diverse range of staff expertise.

Another noticeable characteristic of a professional doctorate is that "... the majority of Professional Doctorate programmes are cohort based, while PhDs are generally individual" (United Kingdom Council for Graduate Education (UKCGE) 2002, p. 38). As such, students are encouraged to interact with one another and share their experiences, practices, and knowledge (Fenge 2011). As professional doctorates increasingly adopt blended modes of delivery, an important question arises that forms our overarching research question: How can doctoral programmes effectively encourage meaningful interaction and peer learning across both in-person and online environments? To explore this, we pose additional research questions:

- (1) How do doctoral students perceive the different elements of activity within the DBA programme?
- (2) What contradictions and tensions arise within these activities? And,
- (3) How do they influence the doctoral learning experience?

2. Literature

2.1. The Exigent Move to Online Education

The COVID-19 pandemic accelerated a shift towards online education, including doctoral programmes (O'Dea and Stern 2022; Sato et al. 2024; Varela et al. 2024). For many doctoral students, fieldwork and in-person supervision were disrupted, forcing adaptations in research design, data collection and forming an online community of learning (Webber et al. 2022). Supervisors and educators also faced new challenges of remote supervision and tuition, the application of digital pedagogy and home working (Krumsvik et al. 2024). At the same time, it opened new avenues for inclusive access through online courses, networking events and peer learning groups. Although some studies reveal that the gains have been uneven, due to disparities in digital access and home study environments, the digital turn represents a reimagining of doctoral education, with both affordances and tensions that will have lasting effects (Stevens et al. 2021; Matsieli and Mutula 2024).

However, this migration did not begin with the pandemic, as online doctoral learning had already gained momentum due to its perceived flexibility, accessibility, and lower cost relative to traditional in-person delivery (Paul and Jefferson 2019). This trend demanded new pedagogical strategies and the integration of digital technologies, though many institutions initially struggled with the transition. Educators often lacked experience in virtual instruction, and traditional face-to-face methods proved difficult to adapt (Greenhow et al. 2022). Over time, doctoral programmes began employing both synchronous and asynchronous methods to scaffold student learning more effectively (Mullen 2021).

Interestingly, research has shown minimal differences in academic outcomes between online and in-person doctoral students (Paul and Jefferson 2019). However, perceptions of online learning often remain less favourable. In-person programmes are regarded as being more effective in developing a sense of community, deeper emotional engagement, and reciprocal peer support, elements that are considered essential for doctoral identity formation and academic development (Baker and Pifer 2013; Alarifi and Song 2024). These relational and affective dimensions help students gain a better understanding of academic expectations, navigate complex research landscapes, and align their personal identities with professional and scholarly roles.

2.2. Physical and Online (Doctoral) Classrooms

The physical classroom supports a vibrant learning ecosystem (Vailes 2022), where tutors, faculty, and academic designers collaborate to foster critical thinking, peer interaction, and problem-solving through co-designed learning environments (Closs et al. 2022; Zhou 2025). While online environments and social media platforms can replicate aspects of this engagement, in-person formats appear to promote stronger emotional bonds and cognitive investment (Raes 2022). This distinction is particularly relevant for doctoral students juggling employment, caregiving, and research commitments, where the absence of face-to-face interaction can intensify feelings of isolation (Parker et al. 2020). Nevertheless, with deliberate design and active facilitation, online communities can offer belonging, academic support, and identity development (Lambrev and Cruz 2021; Carr 2021; Cullinane et al. 2022). The presence of a tutor, whether online or in-person, is essential to the student experience. Through purposeful interaction design and sustained communication, tutors help students maintain motivation, manage workload, and connect with peers, reducing feelings of isolation (Lambrev and Cruz 2021). Informal digital peer networks, when encouraged, can also support identity construction and collaborative learning.

One of the most cited advantages of online doctoral education is its flexibility. Digital platforms allow students to balance professional, academic, and personal responsibilities. At the same time, advancements in education technology, for example, simulations, virtual events, and access to online resources, can potentially improve learning experiences and reduce costs (Cullinane et al. 2022). However, these advantages are unevenly distributed. Technological limitations, such as poor internet access or a lack of private workspace, whether at home or at work, continue to widen inequalities (Domina et al. 2021). Furthermore, the effectiveness of online doctoral education is shaped by a number of factors, including institutional philosophy, programme design, faculty involvement, and quality of support services (Paul and Jefferson 2019).

Some students may be more familiar with traditional, teacher-centred pedagogies and less experienced with digital platforms. However, students often adapt quickly, embracing their roles as digital scholars in a global academic environment (Gouseti 2017; Pearce and O'Neill 2024; Wright et al. 2024). The growing globalisation of doctoral education can strengthen intercultural understanding and improve students' preparedness for online professional engagement. The need for well-structured learning communities that span geographical boundaries remains vital in encouraging community building and reducing feelings of isolation (Schwartz et al. 2019).

2.3. Doctoral Students' Needs

The literature suggests that the needs of doctoral students vary greatly across locations (Lee et al. 2022). Preferences for synchronous versus asynchronous learning contrast by cultural and technological context. For example, while Ghanaian students favoured asynchronous formats for their flexibility (Asamoah and Mackin 2016), U.S. learners viewed synchronous engagement as more engaging and conducive to critical discourse (Warr and Sampson 2020). These differing preferences highlight the importance of context-sensitive instructional design and reliable infrastructure. However, some aspects remain constant as doctoral viva voce examinations rely on seamless synchronous communication (Wisker et al. 2022).

Doctoral education also faces an increasing need to support student well-being and inclusion. Elevated rates of stress, anxiety, and depression are well-documented among doctoral candidates (Barry et al. 2018; Schmidt and Hansson 2018), with online students particularly vulnerable due to limited peer interaction and remote access to campus resources (Abdelghaffar and Eid 2025). An awareness of the need for compassionate pedagogies

(Killingback et al. 2025), responsive course design and comprehensive well-being strategies is required to build academic resilience and self-efficacy (Stoten 2022).

2.4. Design of Doctoral Programmes

Successful doctoral programmes, whether online or in-person, must include effective induction processes, mentoring, and community-building structures to tackle challenges like imposter syndrome and social disconnection (Addison et al. 2022). As doctoral education develops, especially in professional programmes, institutions increasingly add transferable and career-oriented skills alongside traditional research training (Campbell et al. 2005) and enhance competence in scholarly practices (Garcia and Yao 2019). While financial, strategic, and philosophical factors often shape delivery, student experience remains central to programme success (Acharya et al. 2024). Blended and hybrid learning modes, combining the strengths of both online and face-to-face formats, provide ways to meet the diverse needs of students (Gudoniene et al. 2025).

Although current literature explores the pedagogical, technological, and emotional aspects of online versus in-person doctoral education, it remains unclear which design elements most effectively promote identity, belonging, and resilience. Therefore, how do students on doctoral programmes respond to online and in-person learning, and how can their experiences shape future design to support identity development, well-being, and equitable access?

2.5. Theoretical Framework

The framework for this study is influenced by Engeström's (1987) extension of Cultural-Historical Activity Theory (CHAT), emphasising the role of collective activity systems over individual actions, see Figure 1. Activity Theory is a relatively recent approach to studying teaching methods in Higher Education (Colasante 2024). The theory suggests that all human activities can be described and analysed. These activities have a specific structure, occur under certain conditions, are mediated by Tools, instruments, or artefacts, and are carried out to achieve a particular purpose (McAvinia 2016). Activity Theory derives from Vygotsky's (1978) theory of mediation, as stimulus and responses are regarded as a mediated act. The approach was further developed by Leont'ev (1978), who shifted the focus from individual to collective action (Engeström 2001).

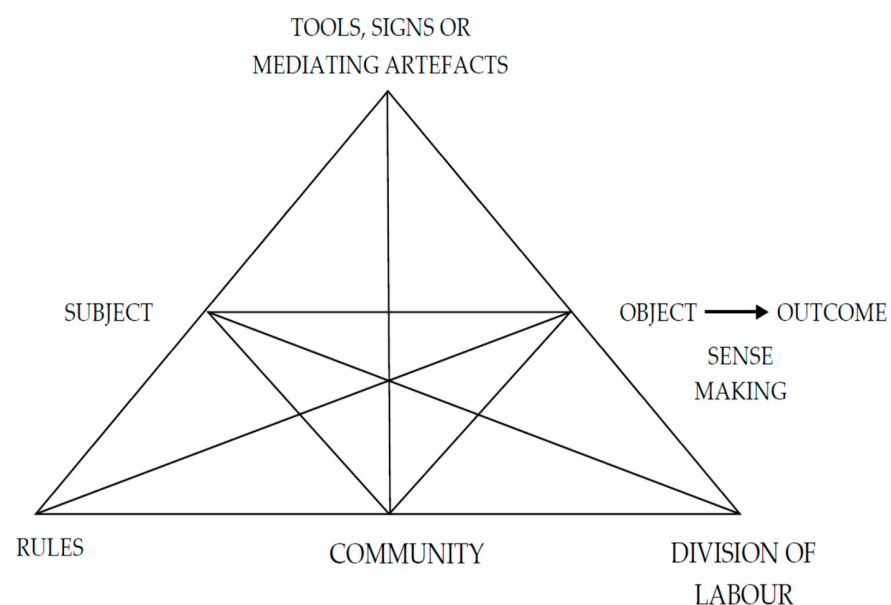


Figure 1. Activity Theory adapted from Engeström (1987, 2001).

Engeström's (1987, 2001) activity system model comprises six interconnecting nodes: Subject, the person or group whose perspective is being examined, in this case doctoral students; Object, the issue or goal of the activity such as learning or research; Tools and instruments, the physical or conceptual resources employed to reach the Object, such as online platforms, software or reading lists; Community, the social group involved with the Object, such as peers, supervisors and staff members; Rules, the explicit and implicit standards guiding behaviour within the activity, such as university policies on hybrid learning and assessment criteria, and; Division of Labour, how tasks and roles are allocated within the Community or group, such as the activities undertaken by staff and students.

Engeström (1987) emphasises that these activities are not static but are historically and culturally situated, as practices and associated meanings evolve and are shaped by their context. The interconnection between the nodes can reveal contradictions leading to tensions that can drive change within the activity system, demonstrating how activities can potentially transform learning (Gedera and Williams 2013). These contradictions are further categorised as Primary, within a single activity; Secondary, between elements of an activity; Tertiary, when an advanced method clashes with older practices; and Quaternary, tensions between different activity systems. For example, when new technologies are integrated into doctoral education, they often create contradictions within Engeström's activity system as they challenge existing practices (Murphy and Rodriguez-Manzanares 2008).

At the Primary level, tensions can develop within individual nodes, such as when online platforms are regarded both as Tools for collaboration and as channels for passive content delivery. DBA students may perceive this as overemphasising passive knowledge consumption rather than peer-to-peer dialogue, creating a contradiction in the dual role of the digital learning platform. Similarly, within Rules, students may be encouraged to actively engage in online forums, only to find that the assessment rubric may only minimally acknowledge online interaction, creating tension between stated and enacted expectations.

Secondary contradictions can arise between nodes, for instance, when new technology is introduced. For example, between the Subject (DBA students) and the Tools (learning technologies), some students may lack the confidence in navigating virtual learning systems and learning technology, limiting their ability to achieve the Object (deep engagement in scholarly research). This can also manifest between Community (staff and students) and the Division of Labour (roles), where students interact naturally during in-person classes facilitated by staff. However, online, staff may expect students to self-organise and lead discussions. In contrast, students might prefer and respond more positively to staff-led interactions, creating mismatched assumptions between the two roles.

Tertiary contradictions can occur between an existing Object and a new one, specifically, when a new model of activity is introduced. When an institution shifts from an in-person seminar to an online model, students may struggle with a loss of embodied cues, informal networking and spontaneous debate. The previous Object of learning through collective meaning-making then clashes with the new Object of flexible technology-driven engagement. In addition, the increased availability and use of AI-based assistants may encourage students to focus on efficiency and output rather than on developing an independent scholarly voice and demonstrating critical reflection.

Finally, Quaternary contradictions can emerge from the interactions between the central activity system and neighbouring systems. Many DBA students are working professionals, their workplace may demand applied thinking with a focus on delivering immediate solutions, while an academic system emphasises deep theoretical rigour and reflective inquiry. Family systems can also cause tensions, whilst online platforms can facilitate students to study at home, this proximity can create competing demands, especially when synchronous sessions overlap with family responsibilities.

In Engeström's work, these contradictions are not problems to be eliminated but are sources of energy for change and development, which Engeström terms 'expansive learning'. Identifying, analyzing and attempting to resolve these systemic tensions enables a system's participants to collectively move toward a new, improved form of practice, creating a cycle of development. Activity Theory has previously been used in studies of doctoral education, but only to a limited extent (Sonesson et al. 2023). It has previously been applied to research into the experiences of doctoral students through teaching (Hopwood and Stocks 2008) and to reveal the emerging identities of doctoral students as scholars as they progress through their academic journey (Beauchamp et al. 2009). It has also been applied to explore the importance of supervision in work-based PhDs (Granata and Dochy 2014), the experiences of doctoral students navigating the tension between study and writing for publication (Lei and Hu 2019), as well as the transition between doctoral student and early career academic (Larkin 2019). These applications highlight the need for further work to extend Activity Theory to encompass a wider range of practices, interactions, and tensions within doctoral programmes.

3. Materials and Methods

3.1. Operationalising Engeström's Model

In this study, the primary Subjects (and units of analysis) are the DBA Doctoral students engaged in the learning process. The Object motive is for the students to complete their Doctorate programme and achieve a deeper understanding of core concepts, enhancing critical thinking and progressing their careers. For some students, this involves more than gaining an academic qualification and includes networking and professional development, *"This doctorate is not just a degree. I also want my faculty and class members to remember me... It's a networking opportunity"*.

The Tools or mediating artefacts serve as resources and methods for learning and teaching. Tools can also be pedagogical approaches adopted by the tutor. Rules refer to the explicit and implicit norms governing educational activity. Community is expressed through the social context in which the activity takes place, for example, how each student cohort forms a community of learning that benefits from peer engagement, shared ideas and collective performance. Division of Labour occurs through the distribution of tasks and responsibilities. Students are responsible for learning, completing assignments, and conducting research. Tutors, professors, and other university staff deliver content, provide guidance and support, and contribute to the students' experience of community. The university provides resources, manages the programme structure, and sets regulations. It also offers opportunities for the students to gain experience by giving lectures, acting as teaching assistants, or seminar leads.

3.2. Context

The study was carried out with a group of first-year doctoral students who are completing the final taught module of their DBA at the University of Gloucestershire, UK. Students study four modules in their first year: Reflective Professional Practice, Systematic Literature Review, Methodological Fundamentals, and Research Methods and Analysis, before progressing to their independent research phase (Simpson and Sommer 2016; Yourston and Bown 2024). These modules are taught intensively through a blend of in-person and online instructional modes. The taught modules take place in the classroom over three days, complemented by a series of one-hour online webinars. These webinars extend discussions, cover progress, check well-being, and focus on assessment. The students who participated in this study will have had experience of the taught phase, but not the independent research phase, which is delivered through synchronous online supervision.

The majority of students are international, based in the UK, with some travelling to attend classes from overseas. Their research interests often demonstrate an applied social-science focus, with topics that include leadership, gender, generational studies, communication, workplace inequality, and managing change. The final module, Research Methods and Analysis, is co-taught by the authors. It was during this module that the initial discussions, which form the basis of this article, arose as students began to express preferences for particular modes of learning.

3.3. Method

Sampling used a convenience strategy of the student cohorts, in this case, four cohorts (C1, C2, etc), see Table 1. Three student cohorts are typically scheduled in an academic year. Students are allocated to a cohort when they are accepted onto the DBA programme. A focus group for each cohort was organised in-person on the final morning of the last taught module, Research Methods and Analysis. Focus groups were chosen for their appropriateness to the sample and ease of organisation, but they also allowed for the discussion between participants to be facilitated and captured. Focus groups offer an engaging and authentic means of surfacing student voices (Lincoln and Guba 1985; Bourne and Winstone 2020). This established approach encourages interactions between participants to collectively explore and make sense of the issues being discussed (Liamputtong 2011; Krueger and Casey 2014). It can also take the research into new and often unexpected directions (Schmidt and Umans 2014). Focus group size and variability were determined by the student group size for each cohort. Students were invited to participate, and it was made clear that non-participation had no penalty regarding their programme of study.

Table 1. Participant Demographics by Cohort.

Cohort	Total Number of Students	Male Students	Female Students
C1	12	7	5
C2	3	2	1
C3	7	4	3
C4	18	6	12

All the participants were international students from countries including the United Arab Emirates, India, Sri Lanka, Pakistan, Nepal, Nigeria, Ghana, Vietnam, and Chile, which reflects the internationalisation of doctoral education.

The discussion explored the learning experiences and preferences of DBA students, comparing online with in-person tuition. Participants addressed the following four questions:

- What are your experiences of learning online compared with in-person learning in the classroom?
- What advantages and disadvantages have you experienced?
- What are your learning preferences, online or in-person, and why?
- Do you have any recommendations or requests you would like to make?

Each focus group lasted approximately 30 min, ranging between 25 min (C1) and 38 min (C3). These were facilitated by two staff members, the authors, who were careful not to influence the debate, allowing it to flow freely and only intervening when it went off-topic or when a supplementary probing question was used to elicit further detail (Winlow et al. 2013; Lincoln and Guba 1985). The staff facilitators remained mindful of the multicultural context of the students, encouraging inclusivity and providing a space for free expression (CohenMiller et al. 2022). With permission from those present, the discussion was audio-recorded using Microsoft Teams. A transcript was produced, checked for accuracy, and

then analysed thematically using Lumivero NVivo, taking an interpretivist and reflexive approach (Braun and Clarke 2006). Thematic analysis is a qualitative research method used to identify, analyse and interpret patterns or themes within textual data. This meant aiming to understand the social world from the perspectives of the social actors within it, drawing on their subjective meanings and lived experiences. Reflexivity was embedded, with both authors critically reflecting on their positionality and potential influence on the analysis. This approach enabled the identification of patterns and meanings within the conversations through reading and re-reading the transcripts to gain an in-depth understanding of the data and to relive the experience. Initial codes were identified, grouped into themes and refined drawing on illustrative quotations. The authors then verified the emerging themes through discussion for the purposes of internal reliability and validity of the data across the four cohorts (Bell et al. 2022). The study adhered to the University's ethical principles.

4. Results

The discussions provided a detailed comparison of online and in-person learning, emphasising various benefits and limitations from the perspective of doctoral students. The emerging themes act as a useful starting point for understanding the student experience and their learning preferences. Five initial themes emerged: Motivation, Emotional and Social Interaction, Active Learning and Engagement, Community Building and Networking, and Understanding Complex and Practical Subjects.

Frequencies of response were recorded against each theme to provide a sense of priority:

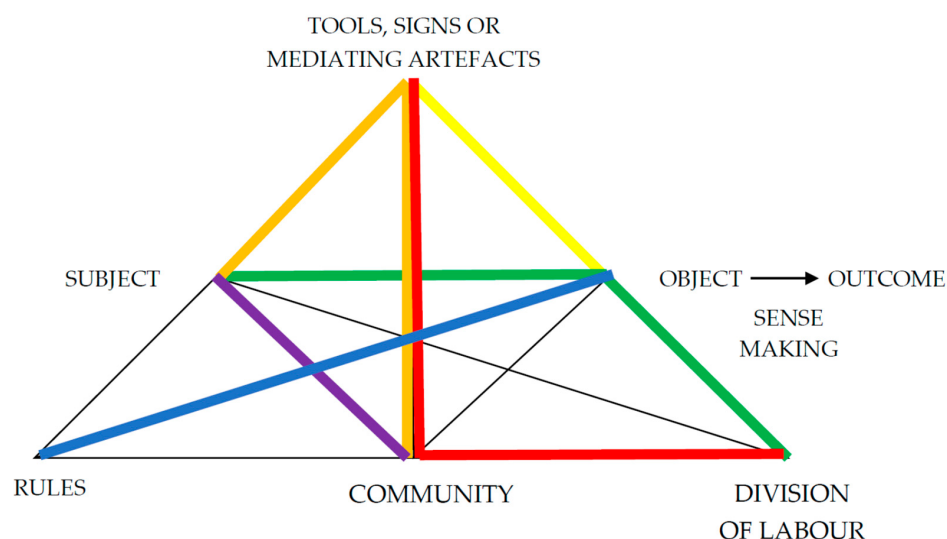
- Motivation (41 occurrences) was most frequently discussed and related to focus, time management, pressure, physical investment, and external constraints that influence a student's drive and attention. It was particularly noted in C3 and C4.
- Active Learning and Engagement (31 occurrences) reflected concerns with direct participation, conducting learning activities, productivity and the efficacy of delivery in-person versus online, in relation to levels of participation. This theme peaked in C3 with 12 occurrences.
- Understanding Complex and Practical Subjects (29 total occurrences) focuses on the suitability of delivery methods based on the nature of the academic material, particularly distinguishing between theoretical/numeric content and practical/applied content. This theme had a strong presence across all cohorts.
- Emotional and Social Interaction (28 occurrences) reflected the importance of non-verbal communication, the feeling of connection, personal comfort and the emotional response of students and tutors, whether online or in-person. This theme was particularly important for those in C3.
- Community Building and Networking (15 occurrences) relates to the importance of building student and faculty rapport, creating opportunities for future career collaboration, and the benefits of personal encounters in a physical setting. This was the least discussed theme across the cohorts.

Whilst this begins to reveal the experiences, concerns and preferences of doctoral students, organising these within Engeström's (1987, 2001) contradictions gives greater insight into the complexities and interaction therein. The discussion here focuses on the primary, secondary and tertiary contradictions.

4.1. Primary Contradictions

Primary contradictions are characterised as inherent, systemic tensions within components of an activity system, particularly the conflict between 'use value', the capacity to meet the human need or want, and 'exchange value', the way it is valued as a commodity. Within the focus groups, one major primary contradiction appeared in the relationship

between the Subjects (the students), their Outcome motives, and the Division of Labour (Figure 2, colour Green).



Key		
Colour	Contradiction	Nodes
Green	Primary	Subject, Object/Outcome, Division of Labour
Yellow	Secondary	Object, Tools
Purple	Secondary	Subject, Community
Blue	Secondary	Outcome, Rules
Orange	Secondary	Subject, Tools, Community
Red	Tertiary	Tools, Community, Division of Labour

Figure 2. Findings mapped to Engeström's Framework.

In terms of use value, the benefits of in-person learning dominated the discussions and were regarded as the preferred option by the majority of students. Learning “*Key theoretical concepts or important bits of what the assessment needs to be ... should ideally be [taught] face-to-face*” (C1) as it allows the teacher to observe and guide students directly (C2). As DBA programmes are “*More of a practical programme*”, direct interaction in applying knowledge in the in-person classroom and engaging in collaborative workshop-style activities were seen as beneficial (C4), allowing “*A lot more time to think critically*” (C1). Participants noted that the structure of in-person sessions helped maintain focus and motivation, reinforced learning routines, and supported student identity, especially when balancing studies with work or family commitments: “*Once we’re here, we get focused ... But when we’re home, priorities change*” (C1). Physical presence in learning environments was reported as improving concentration: “*I’m here 100% with my mind*” (C1) and “*Your brain is automatically focused just to be focused here. You don’t have your laundry running in the background ... You are able to grasp way more*” (C1). As a result, the in-person environment “*Take[s] those distractions away from you ... You just have to focus*” (C1).

On this specific issue, there was some variation between the cohorts. The smallest cohort (C2) was in favour of all in-person tuition and expressed the benefits of being in the classroom. The only cohort in which some students were not based in the UK and attended directly from overseas (C1), also unanimously expressed a desire to be taught in-person rather than online. In contrast, the largest cohort (C4) had more mixed views, with more students expressing a desire to attend taught modules online to save

money, time, and manage other commitments. Online platforms were more valued for their impact on the exchange value of studying, saving travel time, fitting around jobs or childcare, and enabling international access. Online learning significantly *"Saves time and money"*, associated with travel, accommodation, and fuel (C2, C3, C4), which was seen as particularly beneficial for students living a distance away or with other constraints on their time. Attending in-person classes requires significant time and commitment, as the cumulative effect of *"The time travelling coming here and going back"* (C4), can be substantial, incurring, *"Fuel and vehicle costs, as well as hotel expenses"* (C4) and involving time away from friends, family, and other responsibilities. Physical meetings are less convenient for ad hoc and one-to-one sessions, as scheduling in-person meetings can be challenging due to supervisors' or students' varying locations and schedules (C2), and the time required to travel, plus the cost and the effort involved. Thus, *"Physical meetings cannot be scheduled as frequently"* as online sessions (C2).

However, students also talked about household responsibilities, family members, or other jobs interfering with the focus needed for online learning: *"At home, I'm distracted by kids, chores, and sometimes poor internet. I can't focus in the same way"* (C3). Workplace demands divert focus away from specific tasks: *"You open your email and Teams and see several messages and meetings . . . the priorities change. You're not present anymore"* (C1). This highlights the contradictions between the desire to actively engage in the learning process, the use value, whether in-person or online and the demands on time and resources this involves, the exchange value, for students. The academic labour required to achieve the learning is in direct tension with the other labour demands, the student experience and the resource demand for that learning, including time, finances, travel and personal relationships, creating tension between the use value and the exchange value experienced by students. Online learning environments were reported as offering increased flexibility, for student attendance if they are unable to travel, *"Online is fine if I'm stuck or there's a strike [industrial action] . . . it saves time and I can attend from anywhere"* (C4), and as providing a sense of *"Comfort"* for those who need to balance studies with other responsibilities, such as looking after children, other caring responsibilities or working (C4). However, students admitted to being *"Not 100% engaged"* online, more easily distracted by calls or household chores (C1, C3), and for some, the home environment was regarded as *"Too comfortable"*, making it difficult to focus (C3).

Moreover, the exchange value of the learning process was reported in contradictory ways. Whilst it was reported as enabling access to *"Expert opinion"* for individuals who *"Cannot be there physically"* (C2), it was also reported as *"Checkbox learning"*, and linked with lower attention, less emotional investment, and a sense of disconnection: *"The whole session can be completed . . . online, but the engagement is far lower. It's more like ticking a box"* (C1). Online learning was seen as useful for monitoring progress, by students and academic staff, recapping learning and the technical aspects of assessment.

4.2. Secondary Contradictions

Secondary contradictions are outlined as those that arise through conflicts between different components of the system. There were more numerous, as outlined in Figure 2.

4.2.1. Object and Tools

This contradiction, that of Object motive (deep learning), and Tools (delivery methods), fundamentally reflects the tension between deep and surface learning (Figure 2, colour Yellow). Online Tools were deemed efficient for *"Ticking a box"* (C1) and useful for *"Follow-up"*, *"Information sharing"*, and *"Transactional"* learning (C2). They were seen as less effective for teaching *"New topics"*, *"Heavy"* information, *"Complex subjects"*, or developing aspects of

“Transformational learning” (C1-C3). Digital Tools were perceived as *“Not advanced enough”* to replicate the interactivity of face-to-face activities, such as collaborative group work (C2). This raises potential issues about academic rigour (Price et al. 2007) and the range of learning *“Activities”* effectively conducted online (C3). Pedagogy will therefore need to be specifically adapted for online and in-person contexts (Lee and Danby 2012).

4.2.2. Subject and Community

The contradiction here (Figure 2 colour Purple) lies in what it means to be a student, Subject, who is part of a learning community. Developing a sense of community and belonging is important for those visiting the UK for the first time and those entering education after a professional career (Lai 2013). Being present on campus was reported as creating a shift in mindset, helping learners *“Feel like students”* (C3), which participants found individually motivational (C3), but also engendered a sense of community and connection. Students felt that they were *“Members of an organisation, whilst being a student”* (C4), creating a *“Scholar”* mentality (C3). Shared learning experiences in a group setting was said to build *“Collective confidence”* and *“Connections with each other”* (C3). This was explicitly desired by some students, *“Because I am coming from Pakistan to the UK, I want to meet people and learn something from them”* (C2). Physical attendance was also noted to allow for *“Encounters, and chance meetings”* in classroom settings, during scheduled breaks and beyond the teaching day, enabling students to *“Meet different people”* and exchange ideas in ways not possible online (C2), and which provided a valuable *“Networking opportunity”* for career development and friendships (C4).

Such benefits were considered harder to achieve online, as one student said: *“The shared pain of doing difficult tasks in-person actually made it more palatable. You don’t get that feeling online”* (C3). In-person learning was described as *“Transformational”* (C2) with students emphasising the importance of interactivity, feedback, and emotional connection as key components of effective pedagogy. Online learning was described as missing that transformational element (C2) and not seen as *“Being innovative or creative”* (C2). One participant argued, *“Online learning works up to a point, but when you’re trying to learn new concepts, it’s harder to engage and get that feedback that you receive in-person. It’s just not the same”* (C1). In comparison, online sessions were seen as more *“Transactional”* (C2) and suited to information transfer and knowledge updates rather than deep learning. The tension between the benefits of in-person sessions was, however, always balanced by recognition of the ease and accessibility of online learning. This primarily concerns, to some extent, the balance between use value and exchange value, but also indicates a contradiction that requires further work on how institutions can effectively balance these two values through online or blended learning. The answer may partly lie in the available Tools and their use, as successful online learning requires intentional design, scaffolding, and adaptation of teaching methods, rather than simply transferring in-person content to digital platforms (Lee and Danby 2012). However, it was implied that the same disconnect was not universally felt about the switch to online working. Some students indicated that the COVID-19 pandemic meant they had become comfortable and adapted to online interaction; one said: *“During COVID we had to work . . . using the Internet . . . e-mail meetings, online meetings, Microsoft Teams meetings . . . so I feel that this is the new normal”* (C2). Indeed, some expressed more comfort with online, synchronous meetings, than in-person meetings, particularly when their camera was off, because *“Nobody sees me . . . I can easily speak up . . . because I don’t feel that anybody will be judging me”* (C3—see below for more on camera use). This poses a deeper challenge as to whether the perceived student–consumer exchange value is impacted differently than worker exchange value.

4.2.3. Outcome and Rules (Environment)

There was tension between Outcome, student aspiration to achieve their DBA, vs. Environment/Rules, practical constraints (Figure 2 colour Blue). Students express a strong desire for in-person learning due to its quality and the overall benefits for *“Student mentality”* and *“Mindset change”* resulting from being on campus (C1). They want to *“Grow”*, and *“Progress”* in their careers through this opportunity (C4). However, this conflicts with significant practical constraints such as the additional cost and time of travel, difficulty finding local accommodation, and limitations on working hours due to visa regulations. For some, online learning is seen as a preferred option due to logistical and financial barriers. Therefore, students could benefit from increased awareness of the diverse access to reliable technology and digital infrastructure, and providing flexible delivery methods appears to be a potential solution (Bright and Vogler 2024).

Additionally, the Outcome conflicts with the Rules, as students are affected by external regulations, such as student visas and associated work restrictions, which impact their ability to work and live in the UK (C4).

4.2.4. Subjects, Tools and Community

The final secondary contradiction arose from student discussions about the Tools of online and in-person learning (Figure 2 colour Orange). Learning management systems and online virtual learning environments made available and accessible *“[Learning] resources”* such as lecture slides, recordings, and suggested readings (C3). They were valued in their ability to deliver asynchronous content and the ability to *“Watch the pre-record over a number of days”* (C1) and *“Go back to it . . . think about the questions you want to ask”* (C1), which potentially facilitates more reflective learning at the student’s own pace. However, the strongest theme across all four focus groups was the value of physical presence for bonding (C2), emotional cues, spontaneous interaction, and peer learning: *“You’re not only learning from words but from gestures, reactions, and emotional expressions”* (C2). Face-to-face settings were reported as facilitating *“One-to-one discussions. . . [,] allow[ing] you to ask more questions”* (C1) and *“Share ideas”* (C2). Students highlighted learning from nonverbal cues such as *“Gesture . . . posture . . . reactions . . . emotional learning . . . facial expressions”* (C2) and observing body language, which encouraged participation and allowed for *“Immediate [non-verbal] feedback”* (C4). The participants argued that it was not possible to *“Read people as well [online], as you can in-person”* (C3) and that the *“Enthusiasm, [and] the passion of a tutor, you cannot feel from an online session”* (C2). One student reflected that their experience of online learning during COVID-19 meant that their understanding of core concepts from an online postgraduate course was *“Not as solid”* as in-person postgraduate study since there was *“Nothing tangible in having it virtually”* (C1).

It is clear that the tension between flexibility and embodied ways of learning is important. As one student commented, digital Tools are *“Not advanced enough”* for analogous interactive activities (C2). This may, as identified, be due to technology issues, but it could also be a consequence of gaps in digital literacy and technical competence amongst students and/or staff.

4.3. Tertiary Contradictions

Tertiary contradictions arise where newer forms of activity (online learning) clash with older, established versions of the same thing (in-person learning). Here, the tertiary contradiction lay between Tools, Community and Division of Labour (Figure 2 colour Red)

Lack of digital literacy and inadequate devices were mentioned as barriers to effective online learning. While students are often perceived as *“Digitally savvy”*, some expressed that they *“Struggled”* with online tasks and with trying to engage in online learning without

the visual feedback from cameras being turned on (C3). Even whilst accepted that internet reliability limited online Tools such as breakout rooms or camera use (C1), participants cited insufficient interpersonal interactivity online, compared to in-person, learning was cited as problematic (C1). Indeed, some students reflected that they were not used to participating online or “*Contributing to discussion forums*” and preferred to use “*Short text comments*”, which were understood as inappropriate or inadequate when in-depth discussion and critical debate are required (C3). This atmosphere was described as “*Like being a radio host . . . you’re just talking to blank dots on a screen*” (C3), which made it difficult to know whether people are listening or not (C1, C3). This is not just an issue for students but also for tutors trying to help develop a community of learning. This exemplifies the core of this contradiction, whilst Tools make online learning more possible, they also challenge the existing Division of Labour in ways which are not yet fully addressed.

5. Discussion

Advances in digital technology and a growing awareness of the global potential for online courses will almost inevitably lead to an increase in online provision because of its scalability and (presumed) logistical simplicity. However, the results reveal that convenience is offset by concerns about the depth of learning, authenticity of experience, and student engagement. Digital learning environments, such as video podcasts and digital storytelling, can provide meaningful learning experiences that students perceive as authentic; however, these often fail to replicate the full experience of in-person learning. The cognitive process of learning and its relationship to social and emotional contexts are deeply intertwined and not easily separated.

Drawing on Engeström’s Activity Theory (Engeström 1987), the results highlight the complexities and inherent contradictions within the activity system of doctoral-level education, particularly when comparing in-person and online delivery modes. They emphasise the ongoing challenge of enhancing doctoral education, where the advantages of physical presence are balanced against the practical and accessibility benefits of online delivery. Activity Theory demonstrates that doctoral learning is a dynamic, mediated, and socially embedded process. It is especially valuable for analysing online doctoral education’s unique challenges and opportunities, where multiple activity systems intersect, and tensions can disrupt and enrich the learning experience.

Engeström (1987) argues that contradictions within an activity system are not simply obstacles but also the driving force of change. Through experiences, participants question existing practices, analyse their tensions, and encounter new models of activity. When applied to doctoral students’ experiences of in-person and online learning, the contradictions identified in Section 4 identify areas where transformation is possible.

Contradictions in both modes of learning point to underlying systemic tensions: In-person learning highlights a tension between accessibility and engagement. Online learning identifies a tension between flexibility and quality of experience, and between academic expectations and blurred boundaries between home, work and study. This reveals the structural nature of the issues rather than framing them as individual preferences. Blended and hybrid approaches can begin to respond to these contradictions. By combining the depth of in-person engagement with the flexibility of digital Tools, new models of doctoral education could reduce travel burdens, sustain motivation, and allow greater involvement while preserving opportunities for active, communal, and complex learning. Through reflection, students and staff can evaluate which hybrid practices enhance doctoral learning and replicate existing tensions. Over time, practices that best align with the Object of doctoral education and the expectations of students, for example, Motivation, Emotional and Social Interaction, Active learning and Engagement, Community Building and Net-

working, and Understanding Complex and Practical Subjects, can be consolidated into new structures. Doctoral education is not a fixed system but one undergoing continuous negotiation and change. Contradictions between in-person and online learning are not simply problems to be solved, but opportunities for institutions and students to co-create more flexible, inclusive, and meaningful models of doctoral study.

The results reveal that a Division of Labour ascribes distinct roles to tutors and learners, often leading to a one-way transfer of knowledge from tutors to students. Relating to Freire's notion of the 'banking' concept in education, where tutors 'deposit' information, in such an environment, a lack of student engagement is likely (Freire [1968] 1996). For effective DBA delivery, a dialogical approach is required due to the critical exchange between students and tutors and between the students themselves. Such exchanges can help to reduce potential expressions of alienation:

1. Alienation from the academic content, where students have limited input in curriculum design and may struggle to see the relevance of specific topics;
2. Alienation from the learning process, as candidates may not understand the purpose behind the teaching methods, such as why assignments are necessary or why classes are conducted online instead of in-person;
3. Alienation from peers and teachers, in a competitive environment, some students may view their classmates as rivals and see their teachers as authoritative figures rather than facilitators of learning; and,
4. Alienation of the self, where students may find limited enjoyment in learning, focusing solely on completing tasks (Wendling 2009).

In-person teaching was regarded as necessary for learning, yet online learning was considered convenient and was preferred by some (C4). Different modes of learning may benefit individuals with specific cultural or learning needs, as those with particular mobility or visual requirements may prefer to engage online (Dube and Baleni 2022). However, online learning requires different pedagogies, Tools and behaviours from both students and staff. Students are expected to display professional conduct to reflect the norms for professional contexts rather than more informal online settings where use of text speak, emojis and GIFs may be more acceptable (C1). The challenge for the tutor is to design online learning materials that effectively achieve the learning outcomes and meet the needs of students and the curriculum while avoiding issues such as increased cognitive load (Le Cunff et al. 2024). Pedagogical approaches that embed the importance of attitudes, motivation, and collaboration alongside knowledge and skills reinforce the view that cognitive, social, and emotional aspects of learning are interconnected, and this approach is likely to achieve a positive response (Raynault et al. 2022). In-person learning remains valuable for social integration and developing a sense of identity. It effectively imparts knowledge and fosters norms, behaviours, and attitudes that strengthen group cohesion, which can be weaker in the more fragmented online setting (Zhang et al. 2023).

Although online learning faces pedagogical challenges, its ability to overcome geographic, economic, and temporal barriers offers significant promise for educational inclusion. Online access can broaden participation, especially among geographically marginalised and non-traditional learners. However, as noted in the analysis, access alone does not ensure equity. Digital inclusion must address inequalities in internet capabilities, digital literacy, and create positive learning environments (Stevens et al. 2021; Haleem et al. 2022).

6. Recommendations

Applying Engeström's Activity Theory (Engeström 1987), the contradictions identified in the experiences of doctoral students emphasise the need for a distinct, blended approach

to learning. Based on the evidence gathered during the focus groups, university leaders and doctoral teaching staff should consider the following aspects when reviewing their doctoral programmes:

- **Balancing use and exchange value (Primary Contradictions).** Prioritise in-person formats for delivering complex, practical, and collaborative activities that require embodied interaction and detailed feedback. Online delivery can be best utilised for transactional knowledge exchange, convenience, and progress monitoring to accommodate diverse student commitments and constraints.
- **Pedagogical redesign for online learning (Secondary Contradictions).** Tutors should move beyond replicating in-person teaching online by intentionally designing digital pedagogy with scaffolding, interactivity, and reflective learning opportunities. There is a need to provide structured digital literacy training and staff development in online pedagogical practices to maximise effectiveness and enhance the student experience.
- **Community building and scholarly identity (Secondary Contradictions).** Develop in-person opportunities for socialisation, networking, and developing a “scholar mindset,” which are particularly important for international and mid-career doctoral students. Also, strengthen online communities through synchronous peer-to-peer collaboration, facilitated discussion forums, and digital Tools that can replicate aspects of in-person connection.
- **Managing practical constraints, Rules and Outcomes (Secondary Contradictions).** Recognise the tensions between students’ aspirations and external constraints such as time, finances, and visa regulations by offering flexible pathways that combine online accessibility with high-value in-person experiences.
- **Addressing Tertiary Contradictions with digital infrastructure.** Invest in appropriate technology and infrastructure to reduce barriers such as poor connectivity or inadequate devices. Support students and staff in developing confidence with digital tools, and encourage pedagogical practices that mitigate the sense of disconnection in online spaces.

As such, doctoral education should be regarded as a hybrid learning ecosystem in which universities actively manage contradictions across aspects such as Tools, Rules, Community, and Division of Labour. This optimises both the use value and exchange value of in-person and online learning, thereby potentially improving motivation, engagement, and the formation of scholarly identities.

7. Limitations

This study has some limitations. The students were reflecting on their current study experiences, where most of the taught curriculum is delivered in-person, and online webinars are used to reflect, refresh content, and discuss assessments. With a few exceptions, their comments focused on this specifically. Additionally, this study centred on the experiences of a specific group of international doctoral students visiting the UK for postgraduate studies. Further research could investigate students enrolled in HyFlex model courses (Howell et al. 2024) and whether students without strict UK Student Visa restrictions share the same preferences. It is also acknowledged that this study has not sought to explore the students’ cultural differences and how these might influence the challenges and opportunities of online and in-person doctoral education.

Whilst the authors reflexively engaged with the data, they did not have the space to explore their own experiences of in-person and online delivery. Less is known about the experiences of staff delivering online courses and their challenges in engaging with different modes of learning. This area would also benefit from further research as more universities seek to develop a portfolio of online courses.

8. Conclusions

Overall, the study has demonstrated a need for doctoral programmes to effectively encourage meaningful interaction and peer learning across both in-person and online environments. The results revealed how doctoral students perceive the different elements of activity within the DBA programme, what contradictions and tensions arise within these activities, and how they influence the doctoral learning experience. The study revealed a strong positive attitude towards in-person learning. This is not unexpected, as the initial focus of the DBA programme is towards in-person sessions supported by online webinars during the taught phase. The current blended approach recognises the role of online platforms while acknowledging their limitations and navigates some of the identified contradictions, aiming to find a balance between the strengths of both modes of learning. It also highlighted the democratic potential of digital access, promoting equity beyond infrastructure, and emphasised the importance of embodied co-presence in teaching practice.

As global classrooms expand and incorporate the latest technology, the distinction between online and in-person learning becomes critical to pedagogical progress. The differing responses to online and in-person learning emphasise a key tension in contemporary education: balancing scale with depth, access with authenticity, and convenience with a sense of community. Teaching in a global virtual classroom offers a range of opportunities and challenges. Like any classroom, it continually evolves with new students, new staff, new technology, and new ideas. As courses adapt to a changing educational landscape, both in-person and online, they must remain student-centred. Professional doctoral education depends on maintaining currency, relevance, and accessibility in a rapidly changing environment. Employers seek specific skills, while governments and society perceive it as meeting future business needs and driving economic growth. Additionally, universities recognise the importance of increasing the number of international students to secure funding (Jones 2018). These intersecting pressures underscore the need to reassess how doctoral education is structured and delivered, particularly in striking a balance between academic rigour and the evolving demands of a global, digitally mediated higher education landscape. As global classrooms evolve and online opportunities continue to increase, educators and policymakers must go beyond technological solutions and consider the relational, institutional, and cultural factors that support meaningful learning. By focusing on the interplay of Tools, Rules, Community, and Division of Labour, as well as the contradictions that arise among them, educators and researchers can design effective doctoral programmes for both online and in-person contexts. Whether courses are delivered online or in-person, to meet future needs, they must align with the aspirations of students and other stakeholders to provide positive learning experiences and outcomes.

Author Contributions: Conceptualization, A.M.; Methodology, A.M. and L.L.; Software, L.L.; Validation, A.M. and L.L.; Formal analysis, A.M. and L.L.; Investigation, A.M. and L.L.; Resources, A.M.; Data curation, A.M. and L.L.; Writing—Original Draft Preparation, A.M.; Writing—Review and Editing, A.M. and L.L.; Visualization, A.M. and L.L.; Supervision, A.M.; Project Administration, A.M.; All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study complies with the University of Gloucestershire's principles as part of the School of Business Computing and Social Sciences. In particular, principle 1. Primary responsibility for the conduct of ethical research lies with the researcher, as the two staff members were responsible for the design of the study and its data capture. 2. Researchers have responsibilities towards research participants, as they were reminded to be respectful to others, and the staff were available to intervene should such a situation arise. Researchers have responsibilities

towards other researchers, and the staff involved acted accordingly throughout. 3. Research should be based, as far as possible and practicable, on the freely given informed consent of those under study. Consent was verbally given by those who participated with no coercion. The purpose of the study was fully discussed, and participants were offered an opportunity not to participate without penalty. Participants were assured that they would not be identified through any of the discussions and that only anonymised extracts of conversations would be used in any forthcoming presentation, report or publication. The debate was recorded and anonymised audio transcripts held on a secure cloud-based university data storage system. 4. Researchers should endeavour, wherever possible and practicable, to avoid the use of deception. No deception was used during the study. 5. The anonymity and privacy of participants should be respected, and personal information should be kept confidential and secure. The anonymity and privacy of the participants were respected throughout the process, and anonymised data is held securely in compliance with the University's data policy.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The original contributions presented in this study are included in the article. Further inquiries can be directed to the corresponding author.

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

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