

From Room to Zoom: Co-constructing Doctoral Community in Pandemic and Post-Pandemic Times

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ABSTRACT

In early 2020, the introduction of COVID-19 restrictions meant that doctoral programmes which depended on face-to-face models for teaching, learning, and interaction needed to quickly reconsider their established practices. Of particular concern was the impact of pandemic restrictions upon the development of a sense of community among doctoral scholars. This article considers the experiences, opinions, and perceptions of one cohort of students regarding the development and facilitation of a sense of community in their professional doctorate programme at a time of unparalleled restrictions around in-person congregation. The findings indicate that students were predominantly positive about both student-led and staff-led initiatives to foster and maintain a sense of community, with the strongest sense of community occurring at the specialism level. Arising from these findings, the article reflects broadly on the effectiveness and value of these community-building activities and their continued relevance for subsequent iterations of the programme in the post-pandemic near-future.

KEYWORDS

professional doctorate, doctoral study, Doctor of Education, sense of community, COVID-19

INTRODUCTION

While undertaking doctoral study is undoubtedly a hugely rewarding experience for many people (Leonard et al., 2005), it is also widely acknowledged to be one which presents many challenges along the way (Owens et al., 2020); in the words of Janta, Lugosi, and Brown (2014), the doctoral process is “an emotional and multi-faceted journey of becoming a scholar” (p. 553). Much has been written about the factors that can impact doctoral student progression and completion rates, as evidenced through a number of systematic reviews that have synthesized these issues from across multiple publications. For instance, Sverdlik et al. (2018) reviewed 163 papers in considering the factors that influence PhD students’ completion, achievement, and wellbeing, and found that a number of external factors (including personal and social ones, as well as departmental support and socialization) and internal factors (such as motivational variables and academic identity) are likely to influence doctoral students across disciplines and institutional types. Similarly, Schmidt and Hansson’s (2018) literature review of 17 studies highlights a number of challenges that doctoral students face which can impact their well-being; this includes high attrition rates, challenges in maintaining a healthy work-life balance, and mental fatigue.

A number of these issues become further pronounced for students who choose to undertake doctoral study on a part-time

basis. A common challenge is voiced by Watts (2008), for instance, who identifies that

one of the main challenges for part-time students is the strain of having to make the psychological adjustment of constantly switching from one mindset to another [as a result of] balancing a range of personal and work commitments that will influence both their study behaviour and development as a researcher (p. 370)

resulting in what she refers to as a “fractured student identity” of part-time doctoral students. Gardner and Gopaul (2012) echo this and highlight that “the balance these students feel they have to strike is profoundly different and significantly more intense than their full-time peers” (p. 69), as such students usually hold full-time employment in addition to the family and other life commitments that other doctoral students hold. These issues are particularly pronounced in professional educational doctorate programmes where candidates often hold professional leadership roles in schools or organizations while engaging in their studies (Geesa et al., 2023).

The need for support of and among such students is therefore of paramount importance and is well recognized in the literature (Owens et al., 2020). Such support is often conceptualized in two inter-related formats. The first of these is institutional support, which is understandably and widely acknowledged to be of critical importance for doctoral students (Posselt, 2018) and where the role of the supervisor and the significance of the student-supervisor



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relationship is of particular relevance (Jones, 2013). Beyond faculty and academic support, however, the importance of non-academic supports for doctoral students is also of significance, particularly with regard to issues of well-being and mental health (Waight & Giordano, 2018). The role played by social support has also proven to be significant (Peltonen et al., 2017). Jairam and Kahl (2012), for instance, highlight two key findings from the literature regarding the role of social support and its impact on the successful completion of a doctoral degree: first, that while doctoral students' social support networks do often include academic staff, they also include family members and peers, and second, that students with more social support tend to experience less stress, health problems, emotional problems, and have better success rates than those with less social support. Similarly, Mantai (2019) finds that social support for doctoral students extends beyond the institutional research environment and includes outside support from family, friends, and online communities, and that such social support promotes students' researcher identity development, sense of belonging, and of particular interest for the current paper, sense of community.

Sense of Community

The significance and value of a sense of community among students of doctoral programmes has long been recognized for both PhDs and professional doctorates (Pilbeam & Denyer, 2009), and in particular, as one of the main sources of support for doctoral students (Berry, 2017; Kumar et al., 2011; White & Nonnamaker, 2008). Among the most popular frameworks for research on the concept of community in doctoral programmes is that of Community of Practice (Wenger, 1998). For instance, authors such as Leshem (2007) identify this framework as holding particular relevance for those doctoral programmes that adopt a cohort-based approach, while others have highlighted specific elements of the framework, such as the concept of legitimate peripheral participation and how this relates to part-time doctoral students (Teeuwssen et al., 2014). The Community of Inquiry (Garrison et al., 1999) framework has also found much favor with regard to doctoral programmes which are provided through fully or partly online means, particularly in terms of its key concepts of teaching presence, social presence, and cognitive presence (Kumar et al., 2011; Lambrev & Cruz, 2021).

Others have argued, however, that applying any one definition to the term community can prove challenging and that students often do not belong to any one categorization of community but may in fact belong to several different communities (or sub-communities) at the same time. For instance, White and Nonnamaker (2008) argue that "the concept of community in higher education is broadly defined and spans departments, functional areas, divisions, and even institutions" (p. 351). Their study of science doctoral students explored the ways in which membership of different subcommunities (or nested communities) provided a sense of support. White and Nonnamaker found that doctoral students received support from their relationships in five different groups: the general discipline or subdiscipline and the overall professional field as the outermost or most broad community, the institution as a second community, the academic department level as third, the lab (where relevant), and finally, the community formed by students' relationships with their advisor. In a similar vein, Berry (2017) utilized a nested communities theoretical framework to explore student support networks in online doctoral programmes and identified four subgroups that informed online doctoral students' sense of community: cohort, class groups, small peer groups, and

study groups, each of which provided academic, social, and emotional support.

Thus, in the current exploratory study, we were drawn more to sense of community for our investigation rather than to any specific community type, and in this regard, the seminal work of Mcmillan and Chavis (1986) is significant where they define sense of community as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (p. 9). More recently, Rovai (2002) proposes that classroom (be that physical or virtual) sense of community can be conceptualized in terms of four dimensions: spirit, trust, interaction, and commonality of expectation and goals (learning). The first of these, spirit, denotes recognition of membership in a community and the feelings of friendship, cohesion, and bonding that develop among learners, which in turn allow them to challenge and nurture each other. The second aspect, trust, is as the name suggests, the feeling that members of the community can be trusted and relied on. Rovai's (2002) third element is that of learner interaction, which is seen as "an essential element of, but not the full solution to, the development of a sense of community" (p. 5). Drawing on the work of Hare and Davis (1994), Rovai (2002) considers this from two perspectives: task-driven interaction, and socio-emotional-driven interaction. Task-driven interaction occurs on the part of the teacher and refers to programmatic and learning design aspects such as instructor-generated discussion topics and designing peer assessments. Socio-emotional-driven interaction, on the other hand, is largely self-generated by the students within the community and consists of (for example) exchanging empathetic messages and engaging in self-disclosure with other members of the community, which can in turn strengthen the sense of community. The fourth and final element proposed by Rovai (2002) is that of common expectations and in the case of an educational context, refers to the shared commitment among participants to a common educational purpose; "learning represents the common purpose of the community as members of the community grow to value learning and feel that their educational needs are being satisfied through active participation in the community" (p. 6).

In the same way that the overall concept of support is often broadly categorized as either faculty driven or more socially driven in nature, development of a sense of community can be conceptualized in a similar manner. For instance, programmatic design measures have proven fruitful for creating a sense of community for online doctoral programmes. Buss and Wolf (2021) outline a number of built-in programme components that are designed to foster and sustain community among students of their professional doctorate programme; these include a Leadership Challenge Fishbowl which is designed "to foster development of collaboration and leadership skills and to build community" (p. 49), and a Doctoral Research Conference (DRC) to share and receive feedback on ongoing doctoral research. Similarly, Lively et al. (2021) outline how they developed "purposeful programmatic structures focused around building community" (p. 29); they found that the use of immersion experiences, strong support services, synchronous live sessions, and relationships formed with programme staff all contributed to a sense of community for students in their online professional doctorate programme. Lively et al. (2021) note that "the collaboration that results in a sense of community in the EdD program is not happenstance; instead, it was intentionally planned and cultivated in a variety of ways by program faculty and staff" (p. 26).

Notwithstanding such purposeful planning on the part of staff, Studebaker and Curtis (2021) also point out that “building cohort connections does not require faculty involvement to be successful” (p. 23). In their study of an online doctoral programme, students reported a sense of community in having a cohort group chat using online platforms and while this was encouraged by staff, these were “fully student-led initiatives that provide students with the ability to interact in real time with anyone in the cohort who chooses to be involved without the faculty present” (Studebaker & Curtis, 2021, p. 23). Berry (2019) found that “students were part of a thriving, highly interactive social group” (p. 68) which was facilitated by social media (Facebook) and group messaging apps such as WhatsApp and GroupMe that helped students establish social presence and contributed to a sense of community in an online doctoral programme. Elsewhere, Sum (2022) outlines how a student-led group (the PhD Society) “engaged doctoral researchers to 1) build a community, 2) foster digital wellbeing, and 3) overcome the perceived barriers faced whilst actively maintaining the enthusiasm and motivation they once had when applying to graduate school” (p. 2). During COVID-19 lockdowns, the group pivoted to online means and hosted regular short online coffee meet-ups, as well as inviting all doctoral students within the institution to join a PhD WhatsApp group at the start of their first year.

Thus, the literature suggests that co-construction of a sense of community in doctoral programmes can occur through a combination of staff-led and student-led activities, and that this can be achieved via face-to-face and online (or a blend of the two) formats. This can be captured in the following conceptual framework, which will be used to guide our study.

- (a) **Sense of Community** (McMillan & Chavis, 1986), gravitating towards Rovai’s (2002) definition as it factors in co-construction (i.e. staff-led [task-driven interaction] and student-led [socio-emotional-driven interaction] factors) and can relate to both physical and virtual settings.
- (b) **Nested Communities** (Berry, 2017; White & Nonnamaker, 2008). The nested communities we wished to investigate mirrored the nested structure of our programme which sees specialisms embedded within the overall EdD; thus we explored sense of community at (a) specialism level and (b) programme level.
- (c) **Online / Blended** approaches for facilitation of community within professional doctoral programmes (Buss & Wolf, 2021; Lively et al., 2021).

This conceptual framework is expressed graphically in Figure 1 (below):

Figure 1. Conceptual Framework



With that in mind, we move now to a closer consideration of the programme at the centre of the current study, and the measures that were undertaken to develop and maintain that sense of community at a time of unparalleled disruption.

Study Context

This study takes place at the Institute of Education (IoE), Dublin City University (DCU). The Doctor of Education (EdD) programme at DCU is a part-time cohort-based programme with an intake of approximately 45 students every two years. It is structured around a number of specialisms, known as Areas of Professional Focus (APFs), which address specific disciplinary areas such as Inclusive and Special Education, Digital Learning, and Education for Sustainable Futures. The first two years of the programme consist of taught modules, commencing with a week-long summer school in year 1 and then progressing with a number of weekends throughout the rest of year 1 and in year 2, whereby students take a mix of APF-specific modules and modules that are common to all students across APFs. During year 2, a particular emphasis is placed on refining each student’s research proposal for their doctoral thesis, and following successful completion of their second year, students are assigned a supervisory team and spend the remainder of their programme (usually 2-3 years) writing their EdD thesis. Prior to the pandemic of 2020, the EdD programme was structured almost exclusively around face-to-face, in-person gathering for teaching and learning, for work in progress sessions, and for social events organized by the faculty.

On the 12th of March 2020, however, life as we knew it in the Republic of Ireland was altered dramatically when the then Taoiseach (Prime Minister) addressed the nation and announced that “schools, colleges, and childcare facilities will close from tomorrow [and that] where possible, teaching will be done on-line or remotely” (Varadkar, 2020). While these restrictions were initially for a short-term timeframe of two weeks, it soon became obvious that the continuously unfolding events of early and mid-2020 would mean that the next intake of students (scheduled for August 2020) would have a significantly different experience which would consist predominantly (if not entirely) of online provision and participation. Thus, like other faculty and coordinators of predominantly face-to-face doctoral programmes, we began the arduous process of transitioning our teaching practices to fully online means (Cullinane et al., 2022) but were also conscious of the importance of creating that all-important sense of community for and among our students in this time of unprecedented challenge, and that we would need to find alternative means of doing so (Webber et al., 2022).

While not a path we ourselves had walked before, the use of online means for the facilitation of doctoral programmes is now well established (Lee et al., 2022; Melián et al., 2023). Students of fully online or blended programmes are no less susceptible to a number of the challenges outlined earlier in this paper for those engaging in face-to-face programmes, such as the dangers of isolation, stress, and negative impact on wellbeing in their pursuit of a doctorate, and are likewise in need of support systems in helping them overcome such challenges (Berry, 2019; Deshpande, 2016; Hazell et al., 2020). A difference, however, is that born digital doctoral programmes tend to have mechanisms pre-designed into them for supporting students through community facilitation via digital technologies (Buss & Wolf, 2021). It was clear that we could learn from such programmes as we began to adapt our own for the challenging time that lay ahead.

One new development at staff level was Coffee and Conversations, an online gathering to be hosted by the EdD Programme Chair. These weekly sessions were scheduled to take place via Zoom at a set time and were deliberately loosely structured in nature; the objective was to provide a space to talk about anything and to meet with fellow students and chat informally. In contrast, while we were conscious of the potential of student-led initiatives in developing a sense of community among doctoral students (for instance, Rockinson-Szapkiw et al., 2014), the decision was taken to not establish such networks as a staff-led initiative, or via institutional means such as the programme's virtual learning environment, but rather to allow students the freedom to use whatever technologies they wish and to construct any online groups in whatever manner they decided upon, without faculty involvement (Studebaker & Curtis, 2021).

Following a year of fully-online engagement for year 1 of the programme, pandemic restrictions had relaxed sufficiently to allow a blended approach to year 2, whereby students visited the campus for both their opening (weekend 1) and closing (weekend 6) lectures, while the intervening weekends (2-5) occurred online.

METHODOLOGY

This study sets out to consider the experiences, opinions, and perceptions of one cohort of students at DCU regarding the development and facilitation of a sense of community in their professional doctorate programme at a time of unparalleled restrictions around in-person congregation. Online questionnaires were chosen for their acknowledged advantage of being able to reach participants from a wide geographical area (Lefever et al., 2007), which was essential in this case due to COVID-19 restrictions. In designing the survey, the authors were conscious of the recommendations of Saleh and Bista (2017) who examined the factors that influence education graduate students' responses to online surveys; this included the distribution of the survey by a known authority figure (in this case, the EdD programme chair), crafting a survey that is short and concise, assuring the participants of the anonymity and confidentiality of their responses, and in particular, being aware of the time constraints related to time-of-year for the target population (in this case, year 2 students at the conclusion of their second academic year). Thus, the survey was anonymous in design, with focused questions that were predominantly open in nature. Participants were invited to engage in the study via an open email invitation; 27 responses were received from a possible total of 35 students, giving a response rate of 77%. Text-based responses from the online survey were first coded deductively using the conceptual framework that guides this study, followed by inductive thematic analysis because of its acknowledged suitability for the analysis of open-ended responses in online surveys (Braun et al., 2021). Ethical approval for the study was sought and obtained from the University's Research Ethics Committee.

FINDINGS

This section utilizes the nested communities component of the conceptual framework as the primary structure for presentation of findings, while considering student opinions of their co-constructed (student-led and staff-led) sense of community at these two different

levels, with reference to the online and blended approaches taken in order to facilitate this.

Area of Professional Focus (APF) Level

Student-led

From the outset it was immediately clear that the student population had been proactive in creating structures to develop a sense of community at the APF level. Unsurprisingly (given pandemic restrictions around in-person congregation), the use of digital technologies proved central to this, with all but two survey respondents referring to the use of such technologies. The platform most often named was that of WhatsApp, and while many of these responses simply named "WhatsApp", others elaborated on this and used terms such as "support" and "connection": "I believe we have a good support network (WhatsApp group)" and "we have a WhatsApp group and it really helps us to keep the connection". One respondent in particular made clear how the use of WhatsApp created a sense of cohesion among the APF members: "We have a lovely WhatsApp so everyone has become a tight knit group. We share fears around submission time, we share ideas and resources, we share our own thinking and everyday experiences".

Respondents referred to Zoom and how this was used to help create a sense of community at the APF level; for instance, "we had a very successful community where we meet once a week on Zoom, facilitated by one of our peers". Other responses spoke in more general terms about the use of digital technologies; for instance, "we established a very effective online group" and "informal online weekly meet-ups offered a space for sharing ideas" as well as more generic terms such as "social network". Through just under half of the responses, it became clear that students employed a combination of both WhatsApp and Zoom to facilitate this sense of community among themselves. For example:

We had a WhatsApp group for our APF and for the EdD Programme. We have sent messages and updates and general stuff this way and we have had online meetings on Zoom throughout the year as an APF where all members were invited to participate. This was a good way of establishing a rapport and of discussing where everyone was at and offering each other support.

Weekly meetings appeared to be the most common frequency for Zoom meetings at the APF level.

Notably among the responses submitted, each one indicated a sense of community occurring at the APF level. A number of comments also illustrated that this was often through collaborations that were driven by the students themselves; for instance "I got the first Zoom meeting off the ground" and "we set up our own weekly Zoom calls and WhatsApp group". One respondent commented that "to be honest that is really up to us as students", while another reflected that "it didn't take much encouragement to form a sense of community in our group".

Although less frequent, comments also occurred with regard to the in-person aspect of the blended approach taken in year 2 and how this also contributed to a sense of community at the APF level. One student, for instance, reflected that "the weekends in Dublin are important too as we would have gone out for a bite to eat as an APF and this was good for getting to know each other too", while another



valued “the face-to-face dinners/drinks where we got to chat at length”.

Staff-led

A number of comments also spoke positively about staff-led aspects which related to creating a sense of community at the APF level: “from day one our APF lecturer created a sense of community by the warm and welcoming presence”. Several comments referred to a strong social aspect to the online sessions, usually before the “academic” part commenced; for instance, “the chats before the online Zooms”, “coming online early to encourage chat”, and “chats on Zoom ahead of classes”. In particular, a high number of comments referred to staff being approachable and how this contributed to a sense of community:

staff were always very friendly, helpful and supportive ... one-to-one, personal and motivating email responses from [name] as the APF lead, and the understanding, considerate and kind messages during the pandemic ... approachability of lecturers; highly supportive tone of emails ... staff made themselves available which is really important.

Student respondents also pointed to a number of learning design aspects of the APF modules that they considered contributed positively to development of a sense of community. Several referred to the approaches taken by academic staff to facilitation of the online sessions; for instance, “the relaxed atmosphere made it feel like a safe space in which to ask questions and to openly discuss thoughts and ideas”, “democratic manner, acknowledging contexts and expertise, convivial”. The use of discussion (in the synchronous online sessions via Zoom) was highlighted on several occasions: “group discussions, always in a safe and respected environment” and “discussions - this group is very good at listening to and helping each other. Discussions were very helpful because we were very comfortable being honest with each other - no prima donnas!”. Asynchronous discussion was also highlighted by some students: “effective use of the forum on Moodle” and “the discussion forums were a great way for us to get to know each other and where we were coming from, there was always the sense that everyone's opinion mattered”. Other learning design factors were mentioned less frequently; for instance, “the use of jam boards and small group breakout rooms, podcasts and Loop reflect have all enhanced my learning experience and allowed me to get to know my colleagues on the course at a much more meaningful level” and “presenting to peers and receiving support in a community of practice”.

To a lesser extent (which may in part be representative of the fact that students spent a higher proportion of their two years engaging with the programme through online rather than in-person format), students also commented on a number of face-to-face aspects which had been facilitated by staff; for instance, “the APF face-to-face sessions in year 2 were great for encouraging involved discussions” and “face-to-face sessions by far helped with sense of community”.

Thus on balance, the evidence suggests that there was a strong sense of community at the APF level, via a combination of student-led and staff-led factors. This is perhaps crystalized particularly well through the words of one student: “the APF group that I belonged to - I had a sense of belonging and commonality with the group I am with and I felt motivated throughout because I have found my tribe”.

Programme Level

Student-led

The indications of a sense of community at the wider programme level were different from those at the APF level. From a student-led perspective, online technologies again played a clear role at this level, with WhatsApp being mentioned on almost a dozen occasions; for instance: “we have a WhatsApp group to communicate with one another about matters relating to the course” and “a wider WhatsApp group across the programme”. One comment in particular highlighted the value of such a student-only group existing at programme level: “Through a student-only WhatsApp group where concerns could be raised candidly and questions answered in a safe environment”. Another commented that “regular check-ins with other students on WhatsApp kept momentum going”.

Some particular activities were listed which students felt contributed to a sense of community at programme level. For instance: “early on a few of us started a readings group which has been invaluable”, “sharing materials and readings online in a shared folder”, and “sharing of backgrounds and understandings of experiences”. The class representatives (who sit on the programme board) were also highlighted as important in this regard: “the class reps also did a great job in keeping us updated as a community of learners and alerting us to what additional courses were available to us”.

The survey responses reveal, however, that a number of students drew a distinction between the sense of community they experienced at the APF level and that which they experienced at wider EdD group level. One, for instance, commented that “this was more difficult - possibly because we did not meet face-to-face”, while another felt that they “didn't really have a sense of community within the programme”, and another commented that “the move online in yr1 meant that I did not really get to know the wider group”. A small number of comments indicated that the respondent may have felt that their capacity to participate at both the APF level and programme level may have been limited; for instance, one voiced that “a full-scale WhatsApp group was set up which we can contribute to. That's about as much as I feel I could do”.

With regard to the in-person experiences of year 2, comments referring to student-led initiatives at programme level were again less frequent here than at APF level, although a couple did highlight “a few nights out” and “meeting before on-campus sessions - informal get-togethers on Fridays”.

Staff-led

In terms of staff-led aspects which students reported as having contributed to a sense of community at the EdD programme level, the most commonly-stated factor was “coffee and conversations”, the weekly, informal online drop-in session which is hosted by the programme chair and open to all EdD students to attend. One respondent noted that the “Wednesday afternoon coffees” helped create a sense of community “especially at the beginning”; others noted that “coffee and chat enabled a sense of belonging” and that “coffee and conversations was invaluable”. One comment highlighted that the coffee and conversations format facilitated communication beyond the level of the APF: “Coffee and conversations: When I could make it, I usually got to speak with other colleagues outside of

the APF which was very effective in terms of getting to know them and their research topics.”

As was also seen at the APF level, a number of learning design aspects that were adopted by staff at programme level in core modules (attended by all students across the programme yearly cohort, regardless of APF) were highlighted by students, such as “random groups during discussions so that we had the opportunity to interact” and “informal conversations and groupwork activities”. The use of Zoom breakout rooms was also noted in terms of use during these core modules: “the break-out rooms on Zoom in year 1 [module] were great as you usually ended up with different people each time so it led to you knowing most people by the end of the course”. “Group discussions about thesis topics” was also highlighted in the same way, and it was also noted that “discussion during common modules was the main source of this sense of community”. One comment highlighted how a lecturer in a core module had implemented a structure based on the APF groupings, and how this also enhanced the sense of community at the APF level: “The research groupings for [module] with [lecturer] was an excellent way of getting to know our fellow APF colleagues. It led to fortnightly meetings (on Zoom) and really cemented the relationships within the group”. This was confirmed by another respondent who considered that “the group assignment created a real bond with the members of the group”.

Mirroring the pattern that emerged regarding student-led activities, some respondents expressed that their sense of community was not as strong at programme level as it was at the APF level. One student, for instance, commented that they “felt more of a disconnect from the wider group”, while another simply expressed that perhaps such community might be better unplanned for: “I think it happens best organically”. However, such comments were provided in a relatively abstract manner (such as presented here) and did not allude to any particular practice, activity, or wider programmatic factor.

With regard to the blended nature of the second year, comments at the EdD programme level relating to staff-led initiatives fell into two categories. Some referred to the academic aspects of the in-person sessions, such as “it was good the day when we were presenting our thesis proposal that the APFs were split up as it gave us a chance to meet people we would have seen online at Zoom lectures but never spoken to in person”. Others referred to the non-academic aspects of the in-person days on campus, including those occurring as part of the standard timetable (such as “tea breaks during the face to face sessions have been great to meet and get to know other EdD students” and “the lunch that was supplied was a nice touch”), as well as additional social events that had been organized (“it was nice to have get-togethers on opening and last night of in-person gatherings” and “the social gatherings were really appreciated”).

DISCUSSION

The Coronavirus pandemic placed unprecedented pressures on the structures, processes, and practices of education across the world. This article has considered the impact of this on a professional doctorate programme at a higher education institution in the Republic of Ireland and reported on the measures put in place by both staff and students to create and maintain a sense of community among doctoral students at a time when in-person gatherings were

restricted. Drawing upon a conceptual framework consisting of sense of community, nested communities, and the use of online and blended methods for facilitation of community within doctoral programmes, we analyzed the opinions of 27 EdD students that were obtained via online questionnaire.

With regard to the first aspect of our conceptual framework, we found the four elements of Rovai’s (2002) definition for sense of community to be evident in student responses. In terms of the first of these (spirit, which includes feelings of friendship, cohesion, and bonding), it was clear that this was evident through a number of references to terms such as “rapport”, “connection”, “bond”, “relationships”, “friendship”, “tribe”, and, of course, “community”. The second element, trust, was also evident through student responses, with terms such as “safe and respected environment”, “share fears”, “safe space”, and “support network” occurring within responses, or as one respondent sums up, “relationships and connections - we are a wonderful, supportive group”. Rovai’s (2002) third element, learner interaction, is of particular interest as it relates to the co-construction of community between staff-led and student-led activities. At staff level, specially designed features such as Coffee and Conversations in the online space, as well as the organization of social gatherings to coincide with in-person weekends in year 2, were highlighted for their contributions to developing a sense of community. Digital learning design features (such as Zoom breakout rooms, group assignments and presentations, and in particular, group discussions) were also highlighted across the range of modules, as was “lecturer approachability” in general. From a student-led perspective, it is clear that the development of WhatsApp groups, online Zoom meetings, and (when possible) in-person meetings such as “nights out” and “informal get-togethers” have played a crucial role in the construction of a sense of community. Finally, Rovai’s (2002) fourth element of sense of community (common expectation, referring to shared commitment among participants to a common educational purpose) is evident through such comments as “we share ideas and resources”, “a few of us started a readings group,” and “sharing materials and readings online in a shared folder”, indicating a common focus in progressing along the doctoral journey. Thus, these findings contribute further to the research base on the value of a strong sense of community as a source of support for doctoral students (for instance, Kumar et al., 2011; Lambrev & Cruz, 2021; Webber et al., 2022).

Carrying this sense of community forward to the second aspect of our conceptual framework, it emerged that students’ sense of community was not equal (or perhaps, not equal for all participants) across the two nested levels that we explored, with a sense of community being stronger at the APF level. Such findings are consistent with the work of White and Nonnamaker (2008) who found that doctoral students experience multiple communities of varying levels of salience within the doctoral journey and advise an awareness of this in terms of supporting students. It also aligns with Berry’s (2017) exploration of an online doctoral programme which identified the presence of a number of nested communities within the wider doctoral community from which students could draw academic, social, and emotional support. Berry’s (2017) recommendation that “practitioners should leverage technology and on-campus supports to promote extracurricular interactions” (p. 33) is echoed by the authors of the current article and brings us to the third aspect of our conceptual framework.

With regard to this final element of our conceptual framework, the use of online and blended approaches for the facilitation of a

sense of community in doctoral education, this article provides further evidence that such approaches can be effective. In particular, students utilized two particular technologies (WhatsApp and Zoom) to create a sense of community during times of unprecedented restrictions around in-person meetings, similar to the studies undertaken by Berry (2019) and Sum (2022). We also agree with the views of Rockinson-Szapkiw et al. (2014) that such community-building initiatives being led by students can prove highly effective. Notwithstanding this, effective learning design on the part of staff through their use of the institutional virtual learning environment as well as synchronous communication tools such as Zoom and the facilities available within these emerged as an essential factor (Cullinane et al., 2022; Lee et al., 2022; Lively et al., 2021).

We undertook this study with a view to reflect upon the combined efforts of the staff and the students to create a sense of community at a time of unparalleled challenge. In this regard, the forced conditions of the pandemic (in terms of restrictions about in-person gathering) is worthy of comment (as others, such as Webber et al., 2022, have done). Some students felt that “the pandemic impacted this greatly!” and that “the onset of the pandemic hindered any opportunity to develop a sense of community.” Others, however, suggested that the contributing pandemic factors may actually have resulted in a stronger bonding than might otherwise have been the case:

The impact of COVID in terms of attending college made it very difficult but I think it also made us much more cohesive as a group because we met regularly on Zoom to check in with each other, support each other, share ideas / problems, or just chat about anything and everything. I don't think we would have gotten so tight with each other if we had college-based lectures the whole time.

The pattern within the comments tends toward a combined approach to the development of a sense of community in two ways: first, the co-construction of community through a combination of staff-led and student-led factors and second, the use of both online and in-person formats. While a small number of comments suggested a preference for a “return to on-campus classes as much as possible,” the larger proportion (by far) was towards “mixed online and on-campus;” notably, no respondent expressed a view for moving to a fully online, or returning to a fully on-campus setting. Some comments spoke about the blended format in a positive but general way, such as “I have thoroughly enjoyed the taught element and found the blended face-to-face and online great” and “blended learning was super”. Others expanded on this and cited specific reasons, usually down to the practicalities of attending on-campus sessions; for instance, “the ability to do half of the course online - I couldn't afford to come to Dublin and stay 12 weekends,” and “the blended approach of year 2 was pivotal to my survival on the course [...] having the flexibility to be at home for some of the weekend sessions was incredibly helpful and made my ability to access the course so much more meaningful.” A number of comments offered suggestions as to how a blended approach might be implemented as we move forward. One suggestion, for instance, proposed that “if there is a move towards an online / blended learning programme, I would suggest the summer school and first weekend or two should be on campus to facilitate students meeting up and getting to know each other,” echoing perhaps the value of immersion experiences as described by Lively et al. (2021) and of Berry's (2019) use of an in-person orientation to help students connect both online and offline.

Notwithstanding the generally positive findings of this paper, a number of limitations and areas for future research present. First, the current study captures only the student voice and does not include that of staff that teach in the programme or are tasked with programme design and administration; there is obvious benefit in gaining such a broader perspective on this issue. Related to this, our investigation of co-creation of community focuses mainly on student and staff initiatives to co-create a sense of community among students only; the issue of a broader shared sense of community among and between students and staff also warrants investigation. Finally, while our study has confirmed the usefulness of the concept of nested communities as a lens for exploration of our programme, we acknowledge that we looked only at two levels of nested communities: the APF level and the programme level. A broader exploration of nested communities would be welcome; this might include, for instance, moving beyond the programme and looking next at the broader doctoral/research community within the Institute, and then to the level of the university in general, and beyond. This would align closer with the work of White and Nonnamaker (2008) and the nested communities identified in their study, which begin with the level of advisor and radiate outwards to the level of discipline/sub-discipline professional field. Another pertinent avenue for development with regard to nested communities is to adopt a more inductive approach to investigation, which would allow any categorization of sense of community to arise out of the data, rather than being applied from the outset, as was the approach taken by Berry (2017) who identified nested communities of cohort, class groups, peer groups, and study groups among doctoral students. This would allow for the possibility of identifying more organically formed nested communities, such as small cross-APF clusters, study groups, or nested communities that are based on professional discipline or geography.

CONCLUSION

As we move forward, the current findings provide much food for thought in terms of programmatic development and future learning design. Though not something we had planned for or intended, the circumstances brought about by pandemic restrictions and the responses implemented by both staff and students alike, have provided a reflection point for us to consider the possibilities for long-term development of our programme. Based on no small part of our experiences as documented in this article, the next intake of students is engaging in a blended model for both years 1 and 2, which adopts a balance of online and in-person formats. Time will tell how this development unfolds and if we have struck the appropriate balance between room and Zoom.

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