

Continuing conversations: Moving support for doctoral supervisors' professional development online

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Abstract

Whilst doctoral supervision online has become almost routine, the COVID19 pandemic significantly changed research supervision. Supervisors were distanced from colleagues and co-supervisors, with less opportunity for the informal and unplanned conversations through which supervisory challenges may be shared and mentoring take place. An accredited Communities of Practice for Doctoral Supervision has been in operation at (institution) since 2015. Designed to run face to face with small groups, the programme moved online in Spring 2020 due to the lock-down in the UK. Surveying the experiences of facilitators and participants, this paper reflects on the challenges and changes of moving conversations online. Online professional development did require more structured facilitation to effectively support openness, honesty and trust amongst supervisors. Whilst online tools bring benefits in accessibility and democracy, a fundamental component of

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the successful move online was identified as the human element, supervisors as facilitators crafting a sense of community and belonging.

Keywords: doctoral supervisor; professional development; online community

Introduction

Research degree supervision is a specialist academic practice that we are always in the process of learning, of becoming-supervisor (Grant, 2018). Whilst many of us have supervised online routinely, the COVID19 pandemic brought significant changes. Supervisors were distanced from colleagues and co-supervisors as well as doctoral researchers, resulting in fewer opportunities for the informal and unplanned conversations between colleagues through which supervisory challenges may be shared and mentoring take place. Arguably supervisors needed access to other, online forms of support to adapt and maintain their supervisory practice.

In this paper we discuss attempts to support supervisors in reflecting and sharing their practices online at a post-1992 university in the United Kingdom. With strong traditions of professional and practitioner education, [our university] UK has a growing population across PhD and Professional Doctorate programmes, increasing the number of academics undertaking research degree supervision. Reflecting the university's practitioner focus, we developed a dialogic approach to recognise and support supervision as an academic practice. A Community of Practice (CoP) for Doctoral Supervision has been in operation at Birmingham City University since 2015, with SEDA (Staff and Educational Development Association) accreditation ensuring sector benchmarking. Historically running face to face with small groups, the programme moved online in Spring 2020 due to COVID19 lock-down. Sian and Carolyn are co-programme leads and Rachel is a facilitator and institutional lead for our SEDA provision. This paper draws on our lived experience, email correspondence, and a survey of the perspectives of

facilitators and participants across the summer of 2020. We reflect on the challenges and changes of moving conversations online to inform and support others developing online support for supervisors.

Supervisor development pre-pandemic

There is growing acknowledgement of a need to underpinning research degree supervision with professional development (Halse & Malfroy, 2010; Lee, 2018). Gray and Crosta (2019) recognised that the online supervision was underrepresented within the growing supervisory literature, resonating with similar findings identifying a relative paucity of literature on distance supervision more generally (Nasiri & Mafakheri, 2015), despite notable early studies (e.g. Wisker, 2007; Croussard, 2008) on a practice with a long history. Our research does not focus on the experience and skills of online doctoral supervision itself, but on the move of professional development for doctoral supervisors online. The ‘development of supervisors through courses, workshops, mentoring and awards is a relatively new area of academic staff development’ (Lee, 2018, p. 880) and as such, it is a relatively under-researched area in which little evaluation has taken place. There is expansive literature on online learning identifying its increasing importance, benefits and challenges (see for example Martin 2020), this focuses on student learning, asynchronous delivery, or self-directed digital learning, with little focus on online staff development.

Whilst the pandemic may have necessitated the move online in our case study, many universities routinely offer online supervisor development. Commercial provider Epigeum’s elearning programme “Supervising Doctoral Studies” (2020) provides a modular self-directed study approach to professional development as training. Universities in the UK have developed their own online tutorials and modules for supervisors, for example those discussed by Taylor and Clegg in relation to the UKCGE

Good Supervisory Practice Framework (2021, p. 234-5) itself launched as an online toolkit for reflection and professional development (UKCGE, 2019). The provision of elearning for self-directed study is substantively different to the ethos and intentions of our CoP programme and its move online.

Our CoP for Doctoral Supervision programme is based exclusively on community of practice principles (Lave & Wenger, 1991) recognising doctoral study as a domain in which supervisors are members of a professional community with a common academic practice that can be learnt and enhanced through sharing within the community (Hill & Vaughan 2018). CoP groups are mixed rather than discipline-specific including supervisors from the Arts and Humanities, Social Sciences, Education, Health, Engineering, Technology and/or Life Sciences, recognising that ‘supervisor course participants appreciate the exchanges of experiences with colleagues from other disciplines’ (Ahlberg, 2021, p.245).

The CoP is delivered through a series of guided conversations culminating with participants’ inquiries into their own supervision practice (Hill & Vaughan, 2018), assessment is participatory and draws on professional dialogue models (Pilkington, 2013). Each conversation is sparked by a catalyst question and resource as supervisors explore their prior knowledge and skills, experiences, and resources to support doctoral research whilst discussing good doctoral supervision in a variety of contexts. This ongoing interaction between participants through interconnections and contrasting experiences encourages deeper and more meaningful learning (Van den Berg, 2013). Beyond individual accreditation, our ambition is building connections and forming a sense of a university-wide doctoral supervision community with embedded reflection and on-going development.

Peer-facilitation is key to establishing the CoP ethos and the facilitators are all research degree supervisors who have achieved accreditation via the programme themselves. Groups are kept purposively small and each has two facilitators, reinforcing the sense of shared endeavour and multiple perspectives. Facilitators share their own experiences of issues being discussed to establish themselves as peers within the community, rather than occupying more traditional authoritative positions as instructors. Dialogue is facilitated as open and honest, with respect for differing experiences and positions to create a safe conversation space and encourage trust. This is achieved through the explicit introduction of protocols, such as respecting diverse opinions, confidentiality and not talking over one another. Facilitation requires key skills, including being comfortable with silence as being silent creates space for reflection and for others to speak. Facilitators use reflective listening to draw from each participant the meaning they ascribe to their own and others' actions, mirroring what is said to affirm for the speaker that they have been heard. This sense of being heard builds the sense of belonging and trust. Facilitators have to be alert to the body language of participants conversing around a table and make skilled use of non-verbal cues to encourage people to speak and maintain the respectful ethos if differences of opinion become heated or one voice dominates. Pre-pandemic, our CoP was a participatory and dialogic development programme for doctoral supervisors emphasizing face-to-face local community connections.

Our transition to online supervisor development

Whilst the COVID19 pandemic has accelerated growing recognition that supervisors need to be supported in online doctoral supervision (Huet & Casanova, 2020; Kumar et al., 2020), the national lockdown in March 2020 presented specific challenges for our CoP. The ethos and group dynamics established by the facilitators rely heavily on visual

clues and embodied reactions supporting the flow of conversations to construct a mutually supportive reflexive space. The programme leads consulted with facilitators and Associate Deans for Research to determine whether the programme should continue with delivery via video-conferencing technology. Responses confirmed the CoP as a high ‘current business priority’:

‘we really do need to ensure that we support colleagues to grow expertise and confidence’

we should embrace it [online delivery] in all its glorious complexity rather than shy away from it.’¹

All acknowledged that moving the CoP online would mean continuing the conversations as the same but different.

Initial mapping suggested that the CoP could be delivered via video-conferencing using the existing conversational structure and format. An additional consideration was the development of the necessary trust (Pemberton et al., 2007) and rapport between participants for the community to function successfully when restricted to online meetings. To enable meaningful discussion of supervision practice it is important that the CoP is constructed and experienced as a safe place in which to share individual frustrations and challenges. As important is that the individual experiences are collectively reflected on by the group in conversation (Dyke, 2006). Recent literature shows that supervisors recognise benefits from such interaction with their peers and senior supervisors (Jara, 2020).

Investigating the move

The authors’ experiences and discussions amongst facilitators’ suggested that the move

online merited further investigation. We obtained ethical approval for a study to investigate the challenges and affordances of moving our supervisor development programme online.

An interpretive qualitative approach was adopted. As the study was undertaken during a period of intense pressure for academic colleagues, online methods of data collection were considered most likely to elicit responses and a qualitative survey consisting of open-ended questions was deemed most appropriate (Braun et al., 2020). The survey was self-administered, with questions presented in a fixed and standard order to all participants. The questionnaire provided a relatively simple and straightforward approach to the study of perceptions of facilitators and participants of the programme (Robson, 2002). This was combined with the authors' own reflections as CoP leaders and facilitators and email discussions with senior academics within the institution. The data analysis was informed by processes of thematic analysis – a foundational analytical method designed to identify, represent and report thematic patterns occurring within the data (Braun & Clarke, 2006). Both common and discrepant themes are reported and quotes from respondents have been selected as illustrative of a general theme.

During the first six months of the pandemic, roughly March to September 2020, we had six groups running, three that had started pre-pandemic and moved online part-way through, and three that started in May and were delivered wholly online. Excluding the three authors, this had involved eight other facilitators and enabled 54 colleagues to complete the programme and obtain accreditation. We received seven questionnaire responses from facilitators (88%) and eight from participants (15%). The difference in response rates is most probably due to the fact that supervisors already invested in the programme through opting to facilitate groups would be similarly invested in supporting the research. Whilst the response rate from supervisor participants was low, we

acknowledged the testing context for colleagues of increased workloads during a global pandemic. As our research emphasis was on understanding the move online, we felt that facilitators' perspectives were the more significant, as their previous experience as both participants and facilitators of the face-to-face model would inform their reflections. The facilitators that responded represented a variety of experiences. Three were female and four were male. Only three had been supervising doctoral research for more than ten years, hence in terms of doctoral completions, experience was extremely varied and ranging from 19 to none. Four respondents had facilitated a hybrid mode which had commenced face to face and moved online in response to the pandemic.

Results - revealing anxieties and technological affordances

Facilitators expressed some concerns and anxieties around the technical aspects of moving the CoP programme online. However, responses were generally positive in relation to the success or otherwise of online delivery from both participants and facilitators. There was no discernible difference in the nature of responses from those who had been part of hybrid groups, and those in fully online groups. In describing the results of our study, we will focus on the insights around issues of belonging, trust and how the online format and technological tools impacted on the ethos and enactment of a community of practice.

At [post -92] University the stipulated online platform was MSTeams, software few staff would have encountered prior to March 2020. Three facilitators admitted to feeling anxious about moving the programme online whilst another stressed that they felt able to cope with doing so. Despite this, facilitators did mention some practical challenges associated with moving to online delivery:

Initially worried about practicalities of organising this but actually was a lot easier than I imagined

Had no webcam until August and ... lack of IT confidence!

As well as technical challenges, responses from facilitators indicate lingering concerns that online might not be a replication of the previous face-to-face delivery. Concern was expressed more than once about maintaining the difference in ethos and atmosphere of the CoP from an online meeting:

Meetings culture at [post-92] mission drift, danger of everything becoming just another high volume/low impact meeting. The issue of presenteeism.

It is admittedly more difficult to gauge whether supervisors are giving the CoP their undivided attention online, whereas in a face to face environment discouraging multi-tasking with emails is easier given its visibility. However, when asked about the facilitators' role, participant descriptions broadly match the intention with which the CoP was designed:

Like a mirror

Helping the participants to reflect

Reassuringly not one participant made a connection with either more didactic training or formal chairperson roles.

The structure of the programme and focus of each guided conversation was the same as previously, and as facilitators ourselves the authors can testify that the content, experiences and opinions shared were not substantially different online. However, one facilitator did express concern that the online space could not be considered as safe in the same way:

Real issue about confidentiality though as the chat function is a record of the meeting and folk cannot speak freely about institutional issues.

In the authors' experiences, there was not less discussion of institutional issues, nor did such conversations appear more guarded online, however it is still of interest that the lack of anonymity in the MSTeams' chat function was perceived as potentially more restrictive.

Facilitators made both negative and positive comments on the effect of online delivery on the sense of belonging:

Discussions initially seemed a little stilted - seemed to take a bit longer for groups to settle down and work well together than in F2F context. But this isn't a major disadvantage and may decline as we all become more used to this way of working.

Online has become normal but we need to work on building the community anyway which we would have to do with F2F.

Participants all seem engaged and feeling very positive about the activity by the end of the series of meetings, in fact they want means of continuing.

There was also the suggestion that online delivery impacted upon the human and intersubjective elements of the programme:

We lose the 'human' contact - normally you'd get to know people on a personal level to some extent and this is completely missing in this form of interaction - for example during breaks you'd normally chat informally and these conversations can be valuable 'social glue' etc.

Despite this, seven of the eight participants reported feeling part of a community and five said they felt that they had got to know other members of their group. Somewhat frustratingly, the one participant responding that they did not feel part of a community chose not to expand on this in the open question that asked them to do so. One participant

did comment on the role of the facilitators in encouraging a sense of belonging as “A superb one. Keep everything going, raise questions, make everyone feel valued.” It is noteworthy that even amongst this small sample, supervisor participants report viewing the CoP programme as a way to connect with colleagues from other areas of the university than their own and a way to learn about the broader university research community.

Facilitators noted that silences were manageable within an online session although ‘there has to be a community agreement or expectation though that all will take part and invest in the process’. In the authors’ experience facilitating silence online was initially more uncomfortable, and it could be more difficult to gauge the effectiveness of facilitated silences especially when not all cameras were on. Camera-use appears to have been important in increasing the sense of community:

One member of the group refused to turn their camera on ... this created an awkward dynamic which lacked parity

Implicit in this feedback is a sense that without showing their face, commitment to full membership of the community was not recognised by the other participants. However, this participant comment has to be contextualised in relation to a period of national lockdown, with many multi-tasking around work, home-schooling and other care responsibilities. One facilitator noted that cameras ‘can be difficult for individuals occasionally (due to their setting, or technical issues)’.

Only one facilitator felt that they behaved differently during online delivery compared to face to face in that they gave ‘much more consideration to ensure that everyone is included’. Another commented:

Slightly more difficult to draw in quieter people, as they need to be 'called out' very directly online (lack of eye contact /gestural cues).

The authors note from their own experience that this could be managed in quite inclusive ways by naming several individuals at a time and suggesting either speaking or commenting in the chat. There were comments from facilitators on balancing participation online:

Definitely got the impression that the issue of one-person dominating was minimised by the nature of the Teams interaction.

Hands up are a useful way of managing a meeting such as this - they enforce a bit of democracy/inclusion in the way things are run.

The use of hands-up makes it very clear to someone speaking that others want to join the conversation, which may account for the perception that conversations were less likely to be dominated. Arguably, the technical tools within MTeams enable participation to be much more visible to all than the in the face-to-face mode where only the facilitators might be attuned to such things. Facilitators in particular pointed to affordances of the technology as advantageous in enabling engagement and inclusivity:

It is quite inclusive in that it allows us to see who has/hasn't contributed and thereby encouraging that to be rectified. I wonder if some people who might be reluctant to speak face to face were empowered to do so more?

Interestingly one participant explicitly stated that they felt the online mode had 'made it much easier to be honest!', suggesting that for this individual the virtual space had been one they trusted more than an face-to-face conversation on campus. Another participant commented on how the technology enhanced the peer-supportive nature of community enabling 'more support to be shown through the like function'.

However only three participants stated that they had used the MTeams chat outside of sessions to communicate with other members of their group. This limited uptake of the technology's potential to enable asynchronous extension of the CoP was

noted from the authors' experience, although it was not commented on specifically in responses to the facilitator questionnaire.

Significantly, whilst facilitators commented on the strengths and challenges of the move to online delivery of the CoP programme, none felt the need to comment on the change of mode effecting the quality of the reflection and content in the conversations between supervisors, nor did anyone suggest that the online mode negatively impacted participants ability to meet the learning objectives for accreditation. Looking at the accreditation rates for CoP groups that ran during the first six months of the pandemic in the UK, there is no discernible difference statistically in outcomes from previous groups in the programme. It was noticeable that all three groups starting in May and running over the summer months were fully subscribed, which is in contrast with previous non-pandemic years. Interestingly though, no participant mentioned the pandemic or move to remote working as part of their motivation for engaging with the CoP. When asked directly, only three participants mentioned that the availability of the CoP online had affected their decision or ability to attend.

Discussion - pragmatic and productive lessons

In examining moving support for doctoral supervisors' professional development online, this study captures a specific snapshot of a highly unusual time of rapid change. It is important to note that the sudden shift to an online mode of delivery did not negatively impact on programme numbers, supervisor engagement or accreditation outcomes. Our experience demonstrates that online provision also offered some practical accessibility benefits with no room booking or travel requirements between buildings of campuses required. Being easier for staff to access at the click of a button around already busy schedules may account for the bigger group sizes than previous experience with CoP

groups running over the summer. Arguably the increased number of participants may also be a pandemic effect, with research degree supervisors more isolated through working-from-home and seeking opportunities for contact and community. We have decided to permanently add the online CoP to provision at our institution because of these accessibility benefits.

As the technical aspects of online delivery did not generate large challenges, the discussion will focus on how the online experience was comparable to the face-to-face mode in terms of community creation. The findings noted that participants felt they had been part of a community and facilitators did not identify problematic differences in experience from the face to face model. The CoP programme requires a structure to facilitate learning and share resources (Wenger et al., 2002), actively encourage participant interaction through conversation and shared experiences (Van den Berg, 2013), and build a community (Berry, 2019). Our findings suggest that expectations need to be clearly outlined at the start, with consensus negotiated for the specifics of online conversations including discussion of camera use, muting microphones, the ‘hands up’ feature and chat function. It entails a more obviously structured and managed approach to the flow of conversations, particularly from facilitators who may need to more actively call people in by name as well as responding to chat comments. Facilitators had to be alert to different cues and modes of balancing participation within a group. The interaction between ‘facilitator and learner’ and ‘learner to learner’ is an important dynamic. Our CoP enables high levels of collaborative peer to peer interactions and a sense of belonging which can (and do) lead to good learner outcomes (Oyarzun et al 2018; Gray & Crosta 2019). Questionnaire responses and the authors’ experiences demonstrate that online there is still space and time for reflection, conversation and silence.

Openness, honesty and trust amongst supervisors and facilitators is integral to the effectiveness of the CoP approach. Our experience demonstrates that the content and structure of our CoP with its guided conversations around prior knowledge, good supervision, resources and ways to enhance practice was transferable to the online format. Whilst the embodied experience of social learning through peer to peer interaction is different online, it is also clear that some of the technology's features could be used to enhance the sense of community (Kilpatrick, 2019). The hands-up and chat features provide additional ways into the conversations and increased a sense of democracy, inclusion and support that was noted in survey responses. It was clearly possible to create online conversations in which supervisors felt empowered to share experiences and reflect on practice. Our CoP model brings together supervisors from different disciplines and at different stages of their academic career. Whilst this diversity is intentional in creating rich conversations and reinforcing the need to contextualise supervision as a practice to the individual researcher and project, it is not without complexity. Facilitators play a key role in reinforcing a non-hierarchical peer-supportive approach and conscious attempts are made to manage power dynamics around status, gender and other characteristics. As Crossouard noted in relation to an EdD, with face-to-face 'a mix of social class and professional power relations made peer interactions problematic' (2008, p.59). Echoing Crossouard's study of an online discussion forum, our findings demonstrate that the online space can be experienced as a safer and more trusted space in which to be honest with colleagues.

Conclusions

It was reassuring that in a pandemic move online, the quality of our provision was maintained and accreditations achieved. We argue that our experiences can be learnt from

as a contribution to wider discussions on supervisor development. We demonstrate that online spaces can be used to facilitate supportive peer conversations between supervisors in addition to the more common use of online provision for self-directed study and individual reflective activities. The technological tools do require a slightly different approach from facilitators in more overtly managing and structuring conversations. However, the online tools also bring specific affordances in terms of accessibility, democracy and the visibility of peer support in creating trust and opening spaces for reflection, sharing and learning. The key to continuing conversations and supporting supervisors through online professional development would appear to be supervisors as facilitators modelling and creating the sense of community and belonging. In the online as with face to face, the human, interpersonal is still is key in supporting and developing supervisors - supervision itself being after all an inherently interpersonal academic practice.

Footnotes

1. Personal email correspondence to co-programme leads 19th March 2020

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

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References

- Ahlberg, A. (2021). Integration of Doctoral supervisor courses in the research culture: A socio-cultural approach. In A. Lee & R. Bodngaardt (Eds.), *The future of doctoral research challenges and opportunities* (pp. 239 – 248). Routledge.
- Berry, S. (2019). Teaching to connect: Community-building strategies for the virtual classroom. *Online Learning*, 23(1), 164-83.
<http://dx.doi.org/10.24059/olj.v23i1.1425>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
<https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., Clarke, V., Boulton, E., Davey, L., & McEvoy, C. (2020). The online survey as a qualitative research tool. *International Journal of Social Research Methodology*, <https://doi.org/10.1080/13645579.2020.1805550>
- Crossouard, B. (2008). Developing alternative models of doctoral supervision with online formative assessment. *Studies in Continuing Education*, 30(1), 51-67.
<https://doi.org/10.1080/01580370701841549>
- Dyke, M. (2006). The role of the ‘Other’ in reflection, knowledge formation and action in a late modernity. *International Journal of Lifelong Education*, 25(2), 105-123.
<https://doi.org/10.1080/02601370500510728>
- Epigeum “Supervising Doctoral Studies” (2020).
<https://www.epigeum.com/courses/research/>
- Grant, B. M. (2018). Assembling ourselves differently? Contesting the dominant imaginary of doctoral supervision. *Parallax*, 24(3), 356–370.
<https://doi.org/10.1080/13534645.2018.1496584>
- Gray, M., & Crosta, L. (2019). New perspectives in online doctoral supervision: A systematic literature review. *Studies in Continuing Education*, 41(2), 173-190,
<https://doi.org/10.1080/0158037X.2018.1532405>

- Halse, C., & Malfroy, J. (2010). Retheorizing doctoral supervision as professional work. *Studies in Higher Education*, 35(1), 79-92. <https://doi.org/10.1080/03075070902906798>
- Hill, G. & Vaughan, S. (2018). Conversations about research supervision – enabling and accrediting a Community of Practice model for research degree supervisor development. *Innovations in Education and Teaching International*, (55)2, 153-163. <https://doi.org/10.1080/14703297.2017.1406388>
- Huet, I., & Casanova, D. (2020). Exploring the professional development of online and distance doctoral supervisors. *Innovations in Education and Teaching International*, <https://doi.org/10.1080/14703297.2020.1742764>
- Jara, M. (2020). Research-based doctoral supervision development programme: Learning through peer learning, reflection and case studies. *Innovations in Education and Teaching International*. <https://doi.org/10.1080/14703297.2020.1786433>
- Kilpatrick, C. D. (2019). Faces or fingers: Building community with synchronous chat. In J. Yoon & P. Semingson (Eds.), *Educational technology and resources for synchronous learning in higher education* (pp. 1-22). IGI Global.
- Kumar, S., Kumar, V., & Taylor, S. (2020). *A guide to online supervision*. UK Council for Graduate Education. <https://supervision.ukcge.ac.uk/cms/wp-content/uploads/A-Guide-to-Online-Supervision-Kumar-Kumar-Taylor-UK-Council-for-Graduate-Education.pdf>
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. University of Cambridge Press.
- Lee, A. (2018). How can we develop supervisors for the modern doctorate? *Studies in Higher Education*, 43(5), 878-890. <https://doi.org/10.1080/03075079.2018.1438116>
- Martin, F., Sun, T., & Westine, C.D., 2020. A systematic review of research on online teaching and learning from 2009 to 2018. *Computers & Education*, 159. <https://doi.org/10.1016/j.compedu.2020.104009>
- Nasiri, F., & F. Mafakheri. (2015). Postgraduate research supervision at a distance: A review of challenges and strategies. *Studies in Higher Education*, 40(10), 1962–1969. <https://doi.org/10.1080/03075079.2014.914906>
- Oyarzun, B., Stefaniak, J., Bol, L., & Morrison, G. R. (2018). Effects of learner-to-learner interactions on social presence, achievement and satisfaction. *Journal of*

- Computing in Higher Education*, 30(1),154-175. <https://doi.org/10.1007/s12528-017-9157-x>
- Pemberton, J., Mavin, S., & Stalker, B. (2007). *Scratching beneath the surface of communities of (mal) practice*. The Learning Organization.
- Pilkington, R. (2013). Professional dialogues: Exploring an alternative means of assessing the professional learning of experienced HE academics. *International Journal for Academic Development*, 18(3), 251-263. <https://doi.org/10.1080/1360144X.2012.717225>
- Robson, C., (2002). *Real world research (second edition): A resource for social scientists and practitioner-researchers*. Blackwell.
- Taylor, S., & Clegg, K. (2021). Towards a framework for the recognition of good supervisory practice. In A. Lee & R. Bodngaardt (Eds.), *The future of doctoral research: Challenges and opportunities* (pp. 224-238). Routledge.
- United Kingdom Council for Graduate Education (2019). *Research supervision recognition programme*. <https://supervision.ukcge.ac.uk>
- Van den Berg, M. E. S. (2013). An enactivist approach to teaching and learning critical reasoning in ODL. *Progressio*, 35(1), 190–205. <https://hdl.handle.net/10520/EJC144298>
- Wenger, E., McDermott, R. A., & Snyder, W, (2002). *Cultivating communities of practice*. Harvard Business School Press.
- Wisker, G. (2007). Supervising Postgraduates: Internationally, and at a distance. In P. Wilcox, H. Jones, M. Sumner & E. Berrington (Eds.), *Connections: Sharing the learning space* (pp. 23 – 28). Falmer Press.