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# Presence accounted for? student-teachers establishing and experiencing presence in synchronous online teaching environments

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## ABSTRACT

In Ireland, as around the world, the Covid-19 pandemic necessitated that Higher Education Institutions (HEIs) adopt innovative approaches to ensure the continuity of placement-related components of Initial Teacher Education (ITE) programmes. One post-primary concurrent ITE programme conceptualised and developed the Teaching Online Programme (TOP), a multifaceted initiative to introduce student-teachers to the theory and practice of synchronous and asynchronous online teaching via a structured and tutor-supported online peer-teaching experience. Drawing upon the Community of Inquiry framework as a lens, this paper considers how pre-service student-teachers facilitated and experienced 'teaching presence' while peer-teaching in a synchronous online environment as part of their TOP. The paper finds that design and organisation, facilitating discourse, and direct instruction, were viewed as relevant and helpful for teaching in online settings, and that overall there was agreement about the importance of establishing a strong sense of teacher presence when teaching in synchronous videoconferencing environments such as Zoom. It concludes by considering how these findings may be of relevance for future development of ITE programmes.

## ARTICLE HISTORY

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## Introduction

In early 2020 educational institutions around the world abruptly closed their doors to help suppress the spread of the Covid-19 virus. Situated upon this broader educational landscape, teacher education was severely impacted by the rapid and widespread introduction of pandemic restrictions (Flores and Swennen 2020). A particular challenge facing teacher education was the continuity of placement-related components of programmes (Sepulveda-Escobar and Morrison 2020).

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Initial Teacher Education (ITE) providers in the Republic of Ireland design their teacher education programmes in line with criteria prescribed by The Teaching Council (2017, 2020a). In the early months of the pandemic, however, the then criteria for school placement were revisited in light of the unprecedented circumstances and challenges facing teacher education programmes and participants as a result of Covid-19 restrictions. Notably, the terminology around school placement was broadened to incorporate a number of ‘sites of practice’ that went beyond ‘on-site teaching and learning in schools’ to include the use of ‘live on-line teaching and learning’, ‘microteaching’, and ‘online team-teaching’ (The Teaching Council 2020b, 3).

It is within this context that our study takes place at an Institute of Education within a university setting in the Republic of Ireland. The programme in question is a four-year concurrent ITE degree which prepares candidates to be teachers in post-primary (secondary) schools. Responding to the challenges and dispensations outlined above, the authors of the current paper conceptualised and developed the Teaching Online Programme (TOP), a multifaceted initiative which introduced student-teachers to both the theory and practice of synchronous and asynchronous online teaching via a structured and tutor-supported online peer-teaching experience. A key theoretical and practical focus of this programme was the creation of a sense of teaching presence on the part of student-teachers as they planned for and engaged in synchronous online teaching for the first time.

### **Teaching presence**

The issue of presence in online environments has been a subject of attention for several decades (Cui, Lockee, and Meng 2013) and has been identified as necessary for effective online teaching and learning (Ní Shé et al. 2019). While interest in the concept certainly predates and is broader than it, a dominance of research on this topic (evident through several recent systematic reviews, such as Stenbom 2018; Kim and Gurvitch 2020) draws upon the Community of Inquiry framework formulated by Garrison, Anderson, and Archer (1999). The Community of Inquiry (COI) framework focuses on the creation of three inter-relating forms of presence: social presence, teaching presence, and cognitive presence. Teaching presence, the spotlight of the current paper, is defined as ‘the design, facilitation, and direction of cognitive and social processes for the purpose of realising personally meaningful and educationally worthwhile learning outcomes’ (Anderson et al. 2001, 5). Originally developed for usage in asynchronous text-based communication forums, the framework has also become a subject of interest for synchronous videoconferencing (Rehn, Maor, and McConney 2016; Tan et al. 2020).

With regard to teacher education, the concept of presence in online environments has been explored in relation to teacher educators themselves (Ó Ceallaigh 2021; Oyarzun et al. 2021) and to student-teachers as participants in the academic components of ITE programmes (Hopwood et al. 2021; Hodges and Forrest Cowan 2012). In shorter supply, however, are the perspectives of student-teachers on establishing their own sense of presence when teaching in online environments as part of the practicum component of their ITE programme. The current study aims to help address this particular shortfall in the literature.

## Methods

Following approval from the University's Research Ethics Committee (DCUREC/2021/008), participants were invited to engage in the study via an open email invitation. Participants for this current paper were one cohort of student-teachers who had previously undertaken in-person teaching in classrooms. Data were collected via two methods. Online questionnaires were chosen for their ability to reach participants from a wide geographical area (which was necessary due to Covid-19 restrictions) but with the acknowledged limitation that their response rates are often lower (Lefever, Dal, and Matthíasdóttir 2007); in all, 49 responses were received from a possible total of 86 students. The second method for data collection was focus groups, which also proved challenging due to Covid-19 restrictions; thus these were undertaken via Zoom, an approach for conducting qualitative research which has seen much utilisation during the pandemic (Wallace, Goodyear-Grant, and Bittner 2021). Mindful of advice to keep synchronous online focus groups relatively small in size (Lobe 2017), participants were divided into three groups of four student-teachers, with each focus group interview lasting for approximately one hour. The recording feature of Zoom was used to record the focus group interviews, and the audio component of the recording extracted for transcription. Transcripts were coded deductively using teaching presence indicators from the COI framework, and inductively using thematic analysis. Multiple steps were taken to contribute to the trustworthiness of the research (Elo et al. 2014), including the use of Nvivo to enhance the rigour and transparency of qualitative data analysis, the use of multiple sources for triangulation, and careful compilation of a research audit trail.

## Results and analysis

This paper focuses specifically on student-teacher perspectives of creating a sense of teaching presence in synchronous online environments (in this case, Zoom). To that end, results and analysis are structured using the three categorisations of teaching presence proposed by Anderson et al. (2001) as part of the Community of Inquiry framework: (1) Design and Organisation, (2) Facilitating Discourse, and (3) Direct Instruction.

### *Design and organisation*

Anderson and colleagues propose that teaching via online means requires the teacher to be more explicit and transparent around the process, structure, evaluation, and interaction aspects of a lesson. The online survey revealed that the highest proportion of student-teachers (19 of 49) considered design and organisation to be the most significant factor in establishing teaching presence, with focus group comments providing further illumination around this particular categorisation: 'these 2 elements are essential for creating teacher presence [...] it is not possible to properly establish teacher presence without the necessary planning and preparation.' Many students considered that the level of preparation involved for teaching in the online classroom was greater than they had expected, and (in most cases) greater than what they would usually undertake for in-person teaching: 'planning and preparation was critical for this placement, more

than any of our other ones so far, and I believe very strongly that if you didn't prepare or if you didn't plan well, you would have struggled an awful lot during this placement'.

A key theme to emerge with regard to design and organisation was that of confidence. On one hand, a number of comments highlighted confidence on the part of the teacher as critical to establishing a strong sense of teaching presence, and that industrious preparation and planning contributes to this (for instance, 'having thorough planning allowed me to be in charge of what was happening, when, and understand why one part of the lesson was part of a bigger picture'). On the other hand, it was proposed that establishing within learners a sense of confidence in the teacher was important as this contributed to learners feeling more at ease in the online lesson through perceiving a stronger sense of teaching presence: 'planning and organisation in the online classroom, or any classroom, allows students to feel safe and calm in the environment and know the teacher knows what he or she is doing'.

Students gave examples of how they planned for and organised their lessons with particular regard to online facilitation. Several students referred to 'scripting' ('before each of my lessons I would script things I would like to say and write the sequence of my lessons as a reminder to keep on track'), while others considered rehearsal to be beneficial ('in reference to the online classroom it is important that you engage in a practice run to ensure that all of your online activities are working properly').

The category of 'design and organisation' was therefore viewed as the more significant (by a small margin) of the three categorisations, with student-teachers noting that the time required for this was greater than for the traditional face-to-face classroom but that ultimately this contributed to a sense of teacher presence in the online setting through promoting confidence on the part of teacher and students.

### ***Facilitating discourse***

Garrison et al. suggest that facilitating discourse is 'critical to maintaining the interest, motivation and engagement of students in active learning' (Anderson et al. 2001, 7) and it was clear that this view was held by a number of student-teachers, with just under a third (15) of the survey respondents identifying this as the most significant factor for establishing teaching presence: 'facilitating discourse is so important when online teaching, it is so easy to lose the focus of your students'. One of the most common reasons given was that the student-teachers considered that facilitating discourse gave rise to teaching scenarios within the online environment which felt most natural and familiar; for instance, 'encouraging and facilitating discourse in a positive way (with lots of praise) really built a feeling of being in a classroom'.

A dominant reason for choosing facilitating discourse as the most important of the teaching presence categorisations is that this was the one which student-teachers saw as contributing most to participant peer collaboration and learning; one student-teacher, for instance, reflected that 'facilitating discourse is a very important part of teacher presence for me personally as it can create a much better learning environment for all students in the classroom and it encourages students' to share their thoughts and opinions and learn from one another'. Leading on from this, students also commented that it changed the dynamic of the lesson 'by allowing the planned learning to expand beyond the teacher's initial idea into the reality of what the students know, understand,

and how they facilitate learning for each other or highlight what they need to learn more about', and that 'facilitating discourse is something you have to be mindful of, especially when teaching online, as it gives the students a break from the teacher and allows them to communicate with their peers'. Notably, focus group interviews revealed that those students who gravitated towards facilitating discourse for establishing teaching presence also tended to favour active learning methodologies within their online teaching.

Again, students outlined a number of ways that they approached this element of online teaching, with much of this drawing upon effective questioning by the teacher, the use of techniques such as Think-Pair-Share in conjunction with breakout rooms on Zoom, and the use of additional online tools such as Jamboard and Flamingo.

Student-teachers therefore considered that the most likely categorisation to create a more student-centred learning environment was that of 'facilitating discourse'.

### **Direct instruction**

The third teaching presence category proposes that 'teachers provide intellectual and scholarly leadership and share their subject matter knowledge with students' (Anderson et al. 2001, 8) and again, just under a third (15) of the survey respondents considered this to be the most significant factor with regard to their creation of teaching presence in synchronous online settings. For instance: 'I thought that providing direct instruction to students helped the most [...] clarity in explaining concepts and activities is what helped me to have a strong teacher presence within the lesson.' One student-teacher was particularly forthright in their view that direct instruction was the most important of the three teaching presence categories, stating that 'you can have as much planning as you want but at the end of the day, it is your delivery that matters, this is the key component of becoming a good teacher'.

Interestingly, a number of students felt that the synchronous online environment predisposed them to a teacher-centred, content-focused approach to teaching. One, for instance, thought that 'on your normal placement it probably wouldn't be as much teacher exposition but there'd be no way of getting out of it for online teaching', while another reflected that 'I did find I was speaking an awful lot, like some of my lessons I think were just thirty minutes of myself talking'. This created a tension for some students, such as the one who commented that 'I suppose there was a lot of teacher exposition in mine, and I wasn't really happy with it because I felt it hard not to use teacher exposition when you're online'. Others, however, considered that this increased focus on direct instruction (perceived or otherwise) resulted in them sharpening and developing those oral and verbal communication skills needed most for effective direct instruction, to an extent they had not needed before; one student, for example, commented that 'in the online classroom, literally every word matters, and how you say it matters, so I really found myself concentrating on developing my clarity of explanation, my pacing, all of my teacher communication skills'.

Unsurprisingly, many students reported using PowerPoint or Google Slides to structure this aspect of their online teaching, and also (although to a lesser extent) virtual whiteboards. The theme of rehearsal again presented with regard to direct instruction; for instance, students reported using the recording facility on Zoom to prepare for

this aspect of online teaching, which provided them with an opportunity to review their own teaching and to reflect upon this.

While student-teachers therefore recognised the significance and value of ‘direct instruction’, many considered it important that this not become the dominant aspect of their teaching, be that in synchronous online environments or more traditional face-to-face classrooms.

## Discussion and conclusion

This paper has explored student-teacher perspectives of creating a sense of teaching presence in synchronous online environments (Zoom) via a lens provided by the Community of Inquiry framework. While a small majority of participants considered ‘design and organisation’ to be the most significant categorisation in establishing teaching presence in synchronous online environments, the margin between this and the other categorisations of ‘facilitating discourse’ and ‘direct instruction’ was minor. This study confirms, therefore, that the three categorisations of ‘design and organisation’, ‘facilitating discourse’, and ‘direct instruction’, were viewed as relevant and helpful for teaching in online settings, and that overall there was clear agreement among these preservice teachers about the importance of establishing a strong sense of teaching presence when teaching in synchronous videoconferencing environments such as Zoom. Beyond contributing to a growing literature base on the COI framework (in particular, to discussions around ITE students’ use of the framework, and the use of COI with regard to synchronous videoconferencing), the findings also have the potential to inform teacher education in a number of ways.

The first relates to the likelihood for initiatives such as the Teaching Online Programme and dedicated online pedagogies modules to become a fixed component of ITE programmes into the future (Tiernan, O’Kelly, and Rami 2021). In Ireland, for instance, schools are currently required ‘to put in place arrangements to facilitate [...] Emergency Remote Teaching and Learning’, and to ‘develop the skills set of the teachers and support staff’ for this (Department of Education and Skills 2020, 4). The current study suggests the theoretical and practical relevance and benefit of the Community of Inquiry framework for such ITE initiatives that aim to equip future teachers for teaching in online environments.

A second factor for consideration is how engagement in synchronous online teaching may also contribute to the professional education of student-teachers with regard to the traditional face-to-face classroom. It was notable in the current study that reports occurred of student-teachers honing and developing a number of aspects of their teaching for engagement within the online setting but which have broader relevance for teaching in general - for instance, with regard to design and planning of lessons, questioning, teacher communication skills, and developing confidence in their teaching abilities. McArthur has recently explored the ‘digital re-inscriptions of the learning environment from the physical learning space to the synchronous digital one’ (2021, 10) when moving ‘from classroom to Zoom room’; the current study suggests the reverse to also be an issue for consideration and further research.

Finally, we propose that the COI framework might also be used as a lens to explore broader issues of teacher identity, a critical consideration with regard to teacher

education programmes (Beauchamp and Thomas 2009). Student views around the teaching presence categorisations of ‘design and organisation’, ‘facilitating discourse’, and ‘direct instruction’ in the current study illustrate the potential for this framework to be utilised within teacher education as a valuable means to explore student-teacher perceptions of ‘being a teacher’ (Walkington 2005).

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## Notes on contributors

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