





ARTICLE



<https://doi.org/10.1057/s41599-024-03549-6>

OPEN

Teacher practices regarding teaching presence in Vietnamese tertiary online distance education programmes

Phong Thanh Nguyen ¹, Luan Thanh Nguyen ²✉ & Vu Mau Nguyen²

This study explored how teachers adapt their agentic teaching practices in the context of online distance education programmes in Vietnam. A single-institution case study design was used to collect data through online individual semistructured interviews that were conducted via Zoom with five teachers from a variety of disciplines who had been teaching in online distance education programmes at the Centre for E-Learning at a Vietnamese higher education institution. Data analysis highlighted the role of teachers' agentic teaching presence in the pedagogy used in online distance education programmes. Specifically, the teachers exhibited acceptance of an approach to organising their practice that involved adherence to course outlines that had previously been designed and approved without questioning and modifications. However, the results further revealed the agentic direct instruction strategies used by teachers in terms of the varied delivery of course content, student feedback and assessments, which exhibited a stronger emphasis on facilitating online classroom discourse and interactions via various channels with the goal of enhancing students' learning support, experience, and engagement. The findings of this research thereby affirm the pivotal role played by teaching presence in the setting investigated in this research in particular as well as in the context of online distance education in general. The study highlights the need for further interconnections to be established to link multiple aspects of social, cognitive and teaching presence to the practices that teachers use to enhance students' engagement and learning experience. The study also has pedagogical implications with regard to teaching in online distance education programmes that pertain not only to teachers' classroom practices but also to their professional development.

¹Professional Knowledge & Project Management Research Team (K2P), Ho Chi Minh City Open University, Ho Chi Minh City, Vietnam. ²Center for Educational Research and Innovation, Ho Chi Minh City Open University, Ho Chi Minh City, Vietnam. ✉email: luan.nguyen@ou.edu.vn

Introduction

The COVID-19 pandemic demanded continuous adaptations of teaching and learning to suit the new normality it established, thus leading to a shift towards e-learning education and distance education. The emergence of enrolments in tertiary distance education (e.g., in the United States (Caskurlu et al. 2020) or Brazil (de Oliveira et al. 2018)) led to diversified access to online education, particularly in light of the flexibility and customisability of this approach, which enables it to meet students' various needs (Allen and Seaman 2016; Caskurlu et al. 2020); this situation also led to increased societal demands for diverse employment opportunities (Fojtík 2018). Researchers have called for more attention to be given to student learning engagement in the context of online distance education, which represents a pivotal determinant of the quality of online learning (Xu et al. 2020) and significant online learning outcomes (Manwaring et al. 2017; Wang 2022). Similarly, Wang et al. (2021a) claimed that learning engagement lies at the core of students' outcomes and can be impacted by teaching presence, which represents one of three pivotal factors that constitute a community of inquiry. In particular, three types of presence, i.e., teaching, cognitive, and social presence, are intertwined in the delivery of online learning. However, issues pertaining to the quality of student learning experience in distance education remain unresolved (Caskurlu et al. 2020; Xiao 2018; Xu and Xu 2019). As noted by Xu and Xu (2019), the "requirement of higher-level self-directed learning skills and greater difficulties in enabling effective human interactions" (p. 26) were identified as two important barriers that students encountered in the online distance education environment. Bovermann and Bastiaens (2020) reported that teaching support and design represent challenges in the process of enhancing students' learning engagement. Notably, researchers have highlighted issues pertaining to a lack of interpersonal interactions that significantly influence students' learning experience and engagement in online courses (Le et al. 2022; Xiao 2018). Recent research has highlighted the different roles played by teachers in the task of establishing an effective online education community, particularly with regard to the design, organisation, facilitation, instruction and evaluation of online course structure as well as the corresponding teaching and learning process (Caskurlu et al. 2020; Korhonen et al. 2019; Wang et al. 2021a). Despite these findings, little is known about teachers' perceived teaching presence in online tertiary distance education programmes, which thus represents a hitherto underresearched context. The current study constitutes one of the first attempts to investigate how teachers organise their pedagogical practices in the context of an online English-language distance education course at a Vietnamese higher education institution.

Teaching presence represents a core constituent of a community of inquiry (Garrison 2009; Garrison et al. 2000). Teaching presence has been 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, p. 5). The importance of teaching presence is evident "as a significant determinant of student satisfaction, perceived learning, and sense of community" (Garrison and Arbaugh 2007, p. 163). In other words, teaching presence plays a significant role in the process of connecting the social and cognitive components of such a community and enables these two elements to construct an effective learning community that is expected to decrease teacher–student distance (Wang and Liu 2020), thus leading to positive effects on student engagement (Wang 2022). Teaching presence has been defined in terms of teacher support for the enhancement of students' cognitive and social presences with the goal of achieving the expected online learning outcomes (Law et al. 2019). Recent studies have

revealed the important role of teaching presence as a key indicator that can shape students' learning engagement in online courses (Jung and Lee 2018; McNeill et al. 2019; Watson et al. 2016). Through the engagement fostered by teaching presence, students can express their expectations regarding teachers' behaviour in their online education programmes (Wang 2022) through meaningful collaboration and knowledge construction (Wang et al. 2021b). In addition, teaching presence has been viewed as a mode of distributed teaching (Coll et al. 2009; Paz and Pereira 2016; Swan et al. 2020) that focuses on the provision of resources both synchronously and asynchronously over distance with the goal of implementing independent pedagogies in terms of time and space (DiStefano et al. 2007). This mode of distributed teaching presence involves all teachers, students, and resources in students' educational experience in the context of online distance education rather than focusing on the disparities among and dissociation of these participants. Biccard (2022) echoed the pivotal types of presence observed in students' learning experiences in distance education programmes by highlighting the fact that the three intertwined domains of teaching, cognitive and social presence can mitigate significant distances and provide students with more opportunities pertaining to "using and creating knowledge, constructing flexible representations, and building tool competence" (p. 10).

Research on this topic has focused on the importance of teaching presence with regard to students' learning experience in online courses. In particular, such research has highlighted the strong correlation between teaching presence and students' perceived learning and satisfaction (Caskurlu et al. 2020; Ghaemi 2021; Turula 2017) and revisiting each of the three types of presence in student educational experience in the contexts of online distance programmes and blended courses (Kozan and Caskurlu 2018; Victor and Hart 2016). Similarly, Singh et al. (2022) focused on the development of online learning communities in which teachers' presence promoted students' sense of belonging to such communities, thus offering them a full learning experience. For example, researchers have reported that teaching presence is a determinant of students' satisfactory learning experiences (Akyol and Garrison, 2008), academic achievements (Law et al. 2019), and anticipated learning outcomes (Szeto 2015). These studies, however, have not described how the categories of teaching presence are correlated, how students perceive these categories, or students' levels of satisfaction with such categories. Furthermore, the level of student satisfaction requires further exploration.

Studies have highlighted teachers' mixed perceptions of teaching presence in the context of online learning environments, particularly in mainstream education programmes. Teachers' perceived teaching presence has been identified as a significant interaction that is essential for online courses (Wang et al. 2021a) and as an influence on students' engagement in game-based online learning activities (Mahmud et al. 2020). Similarly, Ulla and Nguyen (2022) reported that Thai teachers valued the teaching presence associated with an online English as a foreign language (EFL) classroom during the pandemic. These studies have focused on teachers' perceptions of the impacts of teaching presence on online and/or blended courses in regular mainstream education programmes. Previous studies have called for more research on the practice of teaching presence in the context of mainstream online distance education programmes in Vietnamese higher education institutions and similar settings.

The study

Previous research has reported that teachers' perceived teaching presence is central to online teaching and learning environments,

but further research is needed to investigate teachers' perceptions of teaching presence in terms of its categories. The current study represents one of the first attempts to investigate how these practices are organised in online tertiary distance education, which represents an important but underresearched area, particularly in the context of Vietnamese higher education.

In summary, the current study builds on prior research on teaching presence in online learning environments (Caskurlu et al. 2020; Ghaemi 2021; Wang et al. 2021a) and addresses the following question in a timely manner: *How do Vietnamese teachers enact their practices in online tertiary distance education programmes?* Our primary aim was to explore how teachers design and organise teaching and learning in their online distance courses, facilitate discourses in the context of classroom practice through students' learning engagement and experience, deliver content and assess student learning.

Methods

Design. The study used a bounded single-institution case study design (Yin 2018) to examine how teachers organise their practices in the context of an online distance education course in a Vietnamese higher education institution. Case study research focuses on collecting data within natural social settings, thereby providing a reasonable understanding of a contextually situated phenomenon (Denzin and Lincoln 2018). Specifically, this single case study allowed us to obtain in-depth insights into how teachers organise their teaching presence in the context of this online course by implementing the framed domains approach, thereby confirming and extending our understanding of how these teachers' teaching presence contributed to the fragmented knowledge on the different types of presence within this community of inquiry through interviews.

As teachers teaching in online distance education programmes constitute insiders (Denzin and Lincoln 2018), we were aware of the ways in which reflexivity could influence our engagement in the research process. We were sensitive to the perspectives shared by five teachers at the individual interviews as well as to the ways in which we analysed the data and interpreted the results. We always debriefed the teachers to validate our understanding of their views and crosscheck the interview transcripts. These practices allowed us to capture the teachers' in-depth perspectives and to "situate findings in existing knowledge" (Probst 2015, p. 44).

Participants. We invited teachers working at the Centre for E-Learning at a Vietnamese higher education institution to participate in this study voluntarily via the convenience sampling method (Creswell and Guetterman 2019). These teachers had been teaching in online distance education programmes at this higher education institution for years. Five teachers across various disciplines—Teacher A, Teacher B, Teacher C, Teacher D, and Teacher E (pseudonyms)—participated in this study. Teacher B and Teacher C hold a Ph.D. in Education and have approximately 10 years of teaching experience. Teacher E holds a Ph.D. in Economics and has approximately 18 years of teaching experience. Teacher A holds a Master of Business Administration and is participating in a Ph.D. programme; this teacher also has approximately 15 years of teaching experience. Teacher D holds a Ph.D. in Business and Communications and has nearly 17 years of teaching experience. All of the teachers had approximately five years of diverse types of teaching experience in the context of online distance education programmes.

Data collection. With respect to ethical considerations, one of the researchers sent these five teachers an email containing the information statement for this study, thereby recruiting them as participants. All of the teachers provided full consent in

accordance with the ethical guidance provided by the British Educational Research Association (BERA 2018). These teachers' participation in this study was therefore completely voluntary. None of the participating teachers faced any risk of harm due to this research. The researcher sent the interview schedules to all these voluntary participants prior to the beginning of the interview appointment. Five semistructured individual interviews were conducted with these five teachers, which aimed to capture in depth the ways in which these teachers organised their practices in online distance courses. This method is helpful with regard to capturing participants' interests and investigating their perspectives, values and attitudes (Johnson and Christensen 2020). The interview protocols were developed based on the framework for this study and the extant literature on this topic. The interviews were conducted in Vietnamese via Zoom and were audio-recorded; each interview lasted between 45 and 60 min. The interviewees sometimes used English when they felt comfortable doing so. The researchers transcribed the five interview recordings and cross-checked the transcripts carefully for the purposes of data analysis (Braun and Clarke 2022).

Data analysis. A thematic analysis method was employed for data analysis in this study with the goal of investigating how teachers organised their practices in online distance courses, as this approach has been widely used in qualitative research designs (Braun and Clarke 2022; Terry and Hayfield 2021). The interview transcripts were coded iteratively with the assistance of NVivo 12 software. The researcher focused on three dimensions of teaching presence: design and organisation, facilitation, and direct instruction (Garrison et al. 2000).

The first step in this process was the familiarisation phase, which involved reading the transcripts repeatedly and taking notes to help the researchers familiarise themselves with the data. In the data coding phase, codes were preliminarily developed both inductively based on the data and deductively by using the framework suggested by Garrison et al. (2000) as a guideline. For example, we developed the main codes of 'agentic design and organisation', 'agentic facilitating discourse', and 'agentic direct instruction' and assigned these created codes to all the interview transcripts as appropriate. In the theme aggregation phase, these codes were organised into broader-level patterns and categorised into key themes that captured substantial data pertaining to the research question. For instance, the theme 'agentic direct instruction' was aggregated based on the patterns of 'provision of student feedback' and 'assessment of student progress'. We developed other themes that represented key findings of the current study through a similar process. Throughout the data analysis procedure, we iteratively revised the codes and themes to reach consensus, which constituted the theme refinement phase (Terry and Hayfield 2021). We discussed the emerging themes critically with the participants before producing the finalised analysis report, which constituted the member checking phase. This multilayered and multilevel procedure for data analysis provided us with a comprehensive understanding of how the research question could be investigated explicitly.

In addition, we adhered to Lincoln and Guba's (2007) criteria for trustworthiness to ensure the rigour of this study. Specifically, to augment the credibility of this research, we spent time sharing the research information statement with teachers, obtaining an understanding of the phenomenon under investigation with regard to their teaching presence practices and augmenting our discussion of member checking. To ensure the dependability, confirmability, and transferability of this research and enable the findings of this study to be extended to similar online distance higher education contexts, we comprehensively describe the

methodology we employed, and we consistently implemented the procedure for data collection and analysis together, in which context we applied the notion of reflexivity to our roles as insiders within the natural social settings investigated in this research. We interpret the results in light of contextual data analysis of the interview excerpts and direct quotations from the teachers.

Findings

The analysis reveals the agentic practices employed by teachers in their delivery of education in the context of online tertiary distance education programmes. In the following, the ways in which the teachers employed this agent of change to organise their courses in the context of online distance education are presented in three subsections.

Teachers' agentic design and organisation. When teachers were asked about how they designed and organised the structure of the online distance course, they claimed to have adopted the structures of institutional distance education programmes and course outlines that had previously been developed and approved in advance. These teachers reported that the lectures were divided into several sections to fill the allotted time for video recordings. Quizzes were also designed to check students' demonstrated understanding of the lectures.

Within the online distance education programmes, teachers were provided with detailed course outlines and learning schedules that were designed prior to the start of the course. Each course was delivered over ten weeks. The students were provided with different topics related to the subject matter and content each week. In addition to students' self-directed learning via materials and resources uploaded to the institutional learning management system, students were required to attend three online video conferences. In addition to these video conferences, students were required to complete weekly tasks with a focus on each course unit and a final course assignment. (Interview excerpt 1)

Excerpt 1 reveals that teachers were not asked to develop the course outlines, prepare teaching and learning resources and perform associated assessment tasks themselves, as was the case in mainstream programmes. These courses were instead developed in line with the principles of previous instructional designs based on theoretical foundations with the goal of ensuring the alignment of course learning outcomes, teaching activities, and assessments.

Notably, teachers emphasised the fact that students participating online distance education programmes received essential adequate training related to learning approaches and technology use prior to the beginning of the programmes from faculty administrators and lecturers.

Before each course started, I organised a meeting with my students to provide them with clear and detailed instructions regarding the course outline, weekly content, compulsory requirements related to tasks, guidelines, scaffolding techniques and assessments, and attendance and engagement necessary to meet the course requirements. (Interview excerpt 2)

This interview excerpt highlights teachers' well-prepared course organisation in terms of the sufficient provision of important training related to learning strategies associated with different courses and various types of technology knowledge and skills, which were conveyed through workshops hosted prior to the beginning of students' studies. One reason for this situation pertained to the unique features of this type of distance education.

Teachers reported using a wide variety of digital tools to convey teaching and learning activities as part of their online distance courses. The effects of these digital tools on students' learning experiences varied across courses, and the tools employed could be either synchronous or asynchronous.

In addition to tools for video conferences (e.g., Zoom and Google Meet), I also used a variety of tools to organise my teaching. For example, I used Padlet and Google Docs as two main tools to teach collaborative writing and give students feedback. Additionally, I used Mentimeter and Quizizz for quick tests. These tools are very important for teaching online distance courses, which are different from mainstream face-to-face courses. (Interview excerpt 3)

This teacher's interview response reveals that teachers use a range of digital tools to organise their practices in the context of their online distance courses. Teachers valued these digital tools and found them to be different from the tools they employed in courses in mainstream programmes. They reported that these tools enhanced the interactions between students and teachers during the processes of collaborative work and peer feedback. In addition, teachers expressed their preference for these digital tools due to their ease of use and because they could be used free of charge.

Teachers' agentic facilitating discourse. With respect to teachers' use of facilitating discourse with regard to distance education students, all the teachers indicated that they provided students with learning activities through various channels of interaction. Some mandatory channels included discussion forums hosted on the course site, in which context students were required to complete weekly tasks after engaging with pre-recorded lectures, learning guidelines and resources. Students, for example, were required to post their reflections on the topics provided on the discussion board and to react to their peers' posts by providing their own comments. Additionally, Teacher B added that they organised video conferences via Zoom, in which context they answered students' queries and were able to revise the weekly content. In addition, Teachers E and A reflected on their use of social network groups (e.g., Zalo) to provide prompt responses to students' queries or address unexpected issues.

I met with my students via Zoom at regular video conferences and rated their discussion and posts on the course discussion boards. Additionally, I created a Zalo chat group to provide additional assistance in case of unanticipated problems. All the teaching and learning activities involved these channels. (Interview excerpt 4)

Teacher E further contended that they valued student engagement and learning experience because of the unique features exhibited by this type of distance education programme, which emphasized students' self-regulated learning more strongly. These teachers, therefore, reported that they frequently employed several strategies to ensure their students' engagement with the courses and facilitate their interactions with their peers.

I frequently encouraged my students to engage with the course resources and managed their discussions, which were recorded on the discussion forums on learning management system. I asked my students to respond to my questions and their peers' posts. I also monitored their learning activities, followed up with the concerns they raised and took notes for my further reflective practice. I wanted to focus on their engagement and interactions during their course. (Interview excerpt 5)

This interview excerpt highlighted the adaptations that teachers made to various pedagogies to facilitate learning progress and monitor students' engagement in their online distance courses. In this process, students became more engaged with their learning experiences and interacted more with their peers.

Teachers' agentic direct instruction. Teachers reported that they delivered their subject content instruction at three video conferences as needed. They prepared selective content based on clusters of topics with the goal of providing their students with feedback at each video conference.

I distributed the course content at each video conference accordingly so that I could cover all the topics with which my students engaged during these weeks and respond to their queries. For example, I corrected their pieces of writing and recapped the key points for their course-end examination. (Interview excerpt 6)

Moreover, other teachers reported that they applied the flipped classroom approach to their teaching by providing students with prerecorded lectures alongside scripts and slides for reference prior to meeting with their students at Zoom sessions. These teachers also reported that they used various techniques to provide students with corrective feedback.

I gave my students feedback directly on LMS discussion boards and through messages or indirectly via email, text, and messages in Zalo groups. I accessed the course site at least once per day. Additionally, I provided students with feedback on their work during the three video conferences. I preferred using Zalo groups because of their convenience, and I gave prompt responses by providing feedback at regular video conferences. (Interview excerpt 7)

Interestingly, teachers further posted their feedback to students' discussion boards, which was identified as an ongoing assessment component associated with the different forms of student assessment that the teachers employed.

I employed various modes of assessment for my students' ongoing progress. My students were required to complete the end-of-unit and end-of-chapter assessment tasks, quizzes designed for weekly lectures to track their demonstrated understanding, and end-of-course examinations. Additionally, I assessed my students' responses to their peers' posts on the discussion forums and their engagement in regular video conferences. (Interview excerpt 8)

The interview excerpts revealed the adaptations teachers made to the ways in which they delivered course content, provided feedback to their students via established channels, and conducted assessments. Teachers placed more emphasis on the provision of learning support, engagement and experience with the goal of preparing their students effectively to attain core knowledge and skills during the courses and throughout their distance education programmes.

In addition, the teachers highlighted the importance of students' reflection and teachers' reflective practices, although these factors were not viewed as necessary by their institutional administrators. For example, Teacher B indicated that they required their students to provide reflections on weekly lectures and to engage in regular video conferences pertaining to key learning points and/or takeaways, the ability of the ideas communicated in the lecture to address the professional issues they encountered, the challenges they raised, and any changes in attitudes, thinking and/or action suggested by the lectures. On the

basis of the students' reflections, Teacher B added, "I conducted my reflective practice to self-evaluate how they delivered the course content, organised their classroom activities, and withdrew from practical experiences to revise and inform my upcoming lecture planning" (Interview excerpt 9).

In summary, the findings of this research revealed that teachers implemented their agentic practices with a key focus on their teaching presence in the process of teaching online distance education courses. Their practices were framed based on three main categories: designing and organising their course structure, facilitating discourse regarding learning activities and student engagement in discussion, and providing direct instruction concerning course subject matter and content as well as student feedback and assessments. Across these three categories, teachers valued the role of facilitating discourse as an agent of change in terms of their practices alongside their students' engagement, experience and learning outcomes.

Discussion and recommendations

Prominent teacher agentic online teaching presence. The current study advances research on teaching presence in the context of online distance education by capturing the diversity of the agentic adaptations made by teachers to their pedagogical practices in the unique context of online distance education programmes. One novel finding of the current study lies in the fact that it reveals how teachers can implement their agency effectively and appropriately by incorporating multiple aspects of teaching presence into their classroom practices in the context of distance education programmes. Our results are in line with prior research on the importance of teaching presence in students' online learning (Caskurlu et al. 2020; Ghaemi 2021; Singh et al. 2022; Wang 2022; Wang et al. 2021a). While previous findings have revealed correlations between teaching presence and students' satisfaction with their online learning (Caskurlu et al. 2020; Ghaemi 2021) and between both teachers' and students' positive perceptions of teaching presence in online learning environments and attention to mainstream programmes (Ulla and Nguyen 2022; Wang et al. 2021a), our results suggest that teachers' agency in pedagogical practices is more prominent and focused.

The results of this research reveal that teachers adhere to the structured design and organisation of online distance courses provided by their institution without question. However, teachers also cope with this situation by making flexible and appropriate adaptations to their facilitating discourse and direct instruction in online distance courses. These findings partially corroborate the results of previous findings indicating that student-teacher distance is lower in such online learning environments (Wang and Liu 2020). Notably, while Wang et al. (2021a) reported that teachers find direct instruction to be more important, our study highlighted the fact that teachers value facilitating discourse, which is more central to student engagement and learning experience. An explanation for this finding lies in the fact that the unique features of online distance education programmes offer few opportunities for video conferences that teachers can use to deliver direct instruction of the course subject matter and content. Most student learning occurs through the course learning management system and is tracked by teachers via more asynchronous practices than synchronous practices. According to Wang (2022), all the different aspects of teaching presence contribute to positive student engagement and learning experiences. This study suggests that teachers who have taught in formal online distance education programmes could further explore and employ various components that

constitute such an educational experience, which is central to the community of inquiry framework (Garrison et al. 2000), as guidelines to help them frame their teaching practices and engage in continued professional development. Specifically, teachers may place more emphasis on the three intertwined components of social presence, cognitive presence and teaching presence that are associated with their domains with the goal of increasing students' motivation, such as by satisfying students' basic psychological needs, thereby enhancing students' learning experiences and engagement with regard to the subject matter of the online distance education course (Adam et al. 2023). One novel implication of the findings of this study suggests that student educational experience and engagement should be critically viewed as the core of online distance teacher education programmes in terms of innovations in the field of teacher education and development. These innovations can be integrated with the three intertwined types of presence to augment students' learning engagement and prepare them for future teaching practices that are highly adaptive with respect to the variety of teaching and learning modes employed since the return to normality. A relevant and novel understanding of teaching presence and students' learning engagement has been revealed by this study and observed in previous research (Su et al. 2023; Zhang et al. 2023). This understanding may also be applicable to similar contexts, thereby facilitating the development of better practices in general.

Teachers' agentic professional development. In light of the important roles played by social presence, cognitive presence and teaching presence in student engagement and learning experience, professional development opportunities for teachers are considered to be crucial and essential with regard to this currently underexplored area, particularly in terms of the delivery of online distance education programmes, and these factors must be implemented by the teachers who teach these programmes in particular. As noted by Wang et al. (2021a), teachers may encounter challenges in their efforts to increase students' engagement in online learning environments due to the disparities between teachers' and students' perceived teaching presence. The findings and pedagogical implications of the current study, therefore, may help explain the applicability of online distance education programmes in other comparable higher education contexts.

Limitations

Despite the contributions of this study highlighted above with respect to the educational experience in higher education in general and in online distance education in particular, we also acknowledge that this study also has certain limitations. The main such limitation is that our participants may not be representative of teachers who teach all disciplines in the context of online distance education programmes; for example, this research may not be as applicable to science- and technology-related courses as it is to courses in the social sciences and humanities. Future studies may investigate the perspectives of teachers in those fields. The second limitation pertains to the absence of teacher observation and reflective practice as important data sources for further exploration of the factors influencing teachers' agentic adaptations to their practices and the challenges they encounter. Future studies may investigate these components via different research methodologies.

Conclusion

The current study aimed to obtain insights into how teachers implemented various practices related to teaching presence in the context of an online distance education course at a higher education institution. The study thus contributes to the fragmented literature on teaching presence in particular as well as to the literature on the three types of presence associated with students' educational experience in general in the context of online distance education. The findings of this research revealed that the interviewed teachers organised their agentic teaching presence practices based on the goal of enhancing students' engagement and learning experience in online distance education. Although the teachers accepted the required design and organisation of the online distance courses, they employed various teaching strategies related to facilitating learning discourses, delivering the course content, and assessing student learning. The study highlighted the agency exhibited by teachers in their efforts to engage in such practices in the context of online distance education programmes. Effective online distance learning environments may enhance students' educational experience in mainstream (i.e., face-to-face) and/or blended education.

Data availability

All data generated or analysed in this study are transcribed, coded, and included in this published article.

Received: 23 October 2023; Accepted: 1 August 2024;

Published online: 22 August 2024

References

- Adam MS, Hamid JA, Khatibi A, Azam SMF (2023) Autonomous motivation in blended learning: Effects of teaching presence and basic psychological need satisfaction. *Learn Motiv* 83:101908. <https://doi.org/10.1016/j.lmot.2023.101908>
- Akyol Z, Garrison DR (2008) The development of a community of inquiry over time in an online course: Understanding the progression and integration of social, cognitive and teaching presence. *J Asynchronous Learn Netw* 12:3–22. <https://doi.org/10.24059/olj.v12i3-4.1680>
- Allen IE, Seaman J (2016) Online report card: Tacking online education in the United States. L. Babson Survey Research Group and Quahog Research Group, Boston, MA
- Anderson T, Rourke L, Garrison DR, Archer W (2001) Assessing teaching presence in a computer conferencing context. *J Asynchronous Learn Netw* 5(2):1–17
- Biccard P (2022) A distributed perspective to the community-of-inquiry framework for distance education. *Open Learning*, 1–16. <https://doi.org/10.1080/02680513.2022.2114826>
- Bovermann K, Bastiaens TJ (2020) Towards a motivational design? Connecting gamification user types and online learning activities. *Res Pract Technol Enhanc Learn* 15(1):1. <https://doi.org/10.1186/s41039-019-0121-4>
- Braun V, Clarke V (2022) Thematic analysis: A practical guide. SAGE Publications, London
- British Educational Research Association [BERA] (2018) Ethical guidelines for educational research, 4th edn. <https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2018>
- Caskurlu S, Maeda Y, Richardson JC, Lv J (2020) A meta-analysis addressing the relationship between teaching presence and students' satisfaction and learning. *Computers Educ* 157:103966. <https://doi.org/10.1016/j.compedu.2020.103966>
- Coll C, Engel A, Bustos A (2009) Distributed teaching presence and participants' activity profiles: A theoretical approach to the structural analysis of asynchronous learning networks. *Eur J Educ* 44(4):521–538. <https://doi.org/10.1111/j.1465-3435.2009.01406.x>
- Creswell JW, Guetterman TC (2019) Educational research: Planning, conducting, and evaluating quantitative and qualitative research, 6th edn. Pearson, New Jersey

- de Oliveira MMS, Penedo AST, Pereira VS (2018) Distance education: advantages and disadvantages of the point of view of education and society. *Dialogia* 29:139–152. <https://doi.org/10.5585/dialogia.N29.7661>
- Denzin NK, Lincoln YS (2018) *The Sage handbook of qualitative research*, 5th edn. Sage Publications, Thousand Oaks, CA
- DiStefano A, Rudestam KE, Silverman RJ (2007) *Encyclopedia of distributed learning*. SAGE Publications, Thousand Oaks, CA
- Fojtik R (2018) Problems of distance education. *ICTE J* 7(1):14–23. <https://doi.org/10.2478/ijcte-2018-0002>
- Garrison DR (2009) Communities of inquiry in online learning. In: Patricia LR, Gary AB, Judith VB, Caroline H, Lorraine J, Karen DS (eds.), *Encyclopedia of distance learning*, 2nd edn., pp. 352–355. IGI Global. <https://doi.org/10.4018/978-1-60566-198-8.ch052>
- Garrison DR, Anderson T, Archer W (2000) Critical inquiry in a text-based environment: Computer conferencing in higher education. *Internet High Educ* 2(2-3):87–105
- Garrison DR, Arbaugh JB (2007) Researching the community of inquiry framework: Review, issues, and future directions. *Internet High Educ* 10(3):157–172. <https://doi.org/10.1016/j.iheduc.2007.04.001>
- Ghaemi H (2021) Teaching presence in online EFL courses: A study of community of inquiry model in Iranian context. *Lang Test* 4:13–17. <https://doi.org/10.32038/ltf.2021.04.02>
- Johnson RB, Christensen LB (2020) *Educational research: Quantitative, qualitative, and mixed approaches*, 7th edn. SAGE Publications, Thousand Oaks, CA
- Jung Y, Lee J (2018) Learning engagement and persistence in massive open online courses (MOOCs). *Comput Educ* 122:9–22. <https://doi.org/10.1016/j.compedu.2018.02.013>
- Korhonen AM, Ruhalahti S, Veermans M (2019) The online learning process and scaffolding in student teachers' personal learning environments. *Educ Inf Technol* 24(1):755–779. <https://doi.org/10.1007/s10639-018-9793-4>
- Kozan K, Caskurlu S (2018) On the Nth presence for the community of inquiry framework. *Comput Educ* 122:104–118. <https://doi.org/10.1016/j.compedu.2018.03.010>
- Law KMY, Geng S, Li T (2019) Student enrollment, motivation and learning performance in a blended learning environment: The mediating effects of social, teaching, and cognitive presence. *Comput Educ* 136:1–12. <https://doi.org/10.1016/j.compedu.2019.02.021>
- Le VT, Nguyen NH, Tran TLN, Nguyen LT, Nguyen TA, Nguyen MT (2022) The interaction patterns of pandemic-initiated online teaching: How teachers adapted. *System* 105:1–12. <https://doi.org/10.1016/j.system.2022.102755>
- Lincoln YS, Guba EG (2007) Naturalistic inquiry. In: Ritzer G (Ed.) *The Blackwell encyclopedia of sociology*. <https://doi.org/10.1002/9781405165518.wbeosn006>
- Mahmud SND, Husnin H, Tuan Soh TM (2020) Teaching presence in online gamified education for sustainability learning. *Sustainability* 12(9):3801. <https://doi.org/10.3390/su12093801>
- Manwaring KC, Larsen R, Graham CR, Henrie CR, Halverson LR (2017) Investigating student engagement in blended learning settings using experience sampling and structural equation modeling. *Internet High Educ* 35:21–33. <https://doi.org/10.1016/j.iheduc.2017.06.002>
- McNeill L, Rice M, Wright V (2019) A confirmatory factor analysis of a teaching presence instrument in an online computer applications course. *Online J Distance Learn Adm* 22(4):1–16
- Paz J, Pereira A (2016) Regulation of learning as distributed teaching presence in the community of inquiry framework. *Int J Educ Media Technol* 10(2):52–60
- Probst B (2015) The eye regards itself: Benefits and challenges of reflexivity in qualitative social work research. *Soc Work Res* 39(1):37–48. <https://doi.org/10.1093/swr/svu028>
- Singh J, Singh L, Matthees B (2022) Establishing social, cognitive, and teaching presence in online learning - A panacea in COVID-19 pandemic, post vaccine and post pandemic times. *J Educ Technol Syst* 51(1):28–45. <https://doi.org/10.1177/00472395221095169>
- Su F, Zou D, Wang L, Kohnke L (2023) Student engagement and teaching presence in blended learning and emergency remote teaching. *J Comput Educ*, 1–26. <https://doi.org/10.1007/s40692-023-00263-1>
- Swan K, Chen C-C, Bockmier-Sommers D (2020) Relationships between Carl Rogers' personcentered education and the community of inquiry framework: A preliminary exploration. *Online Learn* 24(3):4–18. <https://doi.org/10.24059/olj.v24i3.2279>
- Szeto E (2015) Community of Inquiry as an instructional approach: What effects of teaching, social and cognitive presences are there in blended synchronous learning and teaching? *Comput Educ* 81:191–201. <https://doi.org/10.1016/j.compedu.2014.10.015>
- Terry G, Hayfield N (2021) *Essentials of thematic analysis*. American Psychological Association, Washington, DC
- Turula A (2017) Teaching presence in telecollaboration: Keeping an open mind. *System* 64:21–33. <https://doi.org/10.1016/j.system.2016.12.001>
- Ulla MB, Nguyen QN (2022) Teaching presence during the COVID-19 pandemic: Practices of EAP teachers in a Thai university. In: Kohnke L (Ed.), *Cases on teaching English for Academic Purposes (EAP) during COVID-19: Insights from around the world* (pp. 28–51). IGI Global. <https://doi.org/10.4018/978-1-6684-4148-0.ch002>
- Victor SP, Hart S (2016) Distributed learning: A flexible learning and development model. In: *E-Learn 2016 conference*, Washington, DC, United States. Association for the Advancement of Computing in Education, San Diego, CA
- Wang Y (2022) Effects of teaching presence on learning engagement in online courses. *Distance Educ* 43(1):139–156. <https://doi.org/10.1080/01587919.2022.2029350>
- Wang Y, Liu Q (2020) Effects of online teaching presence on students' interactions and collaborative knowledge construction. *J Comput Assist Learn* 36(3):370–382. <https://doi.org/10.1111/jcal.12408>
- Wang Y, Stein D, Shen S (2021a) Students' and teachers' perceived teaching presence in online courses. *Distance Educ* 42(3):373–390. <https://doi.org/10.1080/01587919.2021.1956304>
- Wang Y, Zhao L, Shen S, Chen W (2021b) Constructing a teaching presence measurement framework based on the community of inquiry theory [Conceptual Analysis]. *Front Psychol*, 12. <https://doi.org/10.3389/fpsyg.2021.694386>
- Watson SL, Watson WR, Richardson J, Loizzo J (2016) Instructor's use of social presence, teaching presence, and attitudinal dissonance: A case study of an attitudinal change MOOC. *Int Rev Res Open Distance Learn* 17(3):54–74. <https://doi.org/10.19173/irrodl.v17i3.2379>
- Xiao J (2018) On the margins or at the center? Distance education in higher education. *Distance Educ* 39(2):259–274. <https://doi.org/10.1080/01587919.2018.1429213>
- Xu B, Chen N-S, Chen G (2020) Effects of teacher role on student engagement in WeChat-Based online discussion learning. *Comput Educ* 157:103956. <https://doi.org/10.1016/j.compedu.2020.103956>
- Xu D, Xu Y (2019) The promises and limits of online higher education: Understanding how distance education affects access, cost, and quality. American Enterprise Institute
- Yin RK (2018) *Case study research and applications: Designs and methods*, 6th edn. SAGE Publications, Thousand Oaks, CA
- Zhang Y, Tian Y, Yao L, Duan C, Sun X, Niu G (2023) Teaching presence promotes learner affective engagement: The roles of cognitive load and need for cognition. *Teach Teach Educ* 129:104167. <https://doi.org/10.1016/j.tate.2023.104167>

Acknowledgements

This research is funded by Vietnam National Foundation for Science and Technology Development (NAFOSTED) under grant number 503.99-2020.04.

Author contributions

Phong Thanh Nguyen: Conception and design of study, acquisition of data, analysis and/or interpretation of data, revising the manuscript critically for important intellectual content. Luan Thanh Nguyen: Conception and design of study, acquisition of data, analysis and/or interpretation of data, writing the manuscript, revising the manuscript critically for important intellectual content. Vu Mau Nguyen: Acquisition of data, data coding, revising the manuscript critically for important intellectual content.

Competing interests

The authors declare no competing interests.

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study was approved by the Ethical Committee of the Vietnam National Foundation for Science and Technology Development (NAFOSTED) on 15 April 2020 (Ref. No. 503.99-2020.04).

Informed consent

We informed each participant of the participant information statement, their rights to withdraw from the study, their voluntary participation and their personal information treated with confidentiality during the recruitment. We had obtained their full consent before we conducted the interviews for data collection.

Additional information

Correspondence and requests for materials should be addressed to Luan Thanh Nguyen.

Reprints and permission information is available at <http://www.nature.com/reprints>

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Open Access This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

© The Author(s) 2024