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# Exploring Online Teaching Presence and UDL Principles for Attention Equity:

## A Phenomenological Inquiry of Doctoral Students' Lived Experiences

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**ABSTRACT**

The proliferation of online learning in higher education highlights the need for a deeper understanding of students' experiences with instructional design that mitigate distractions impacting learning outcomes. This qualitative phenomenological study explores the lived experiences of nine doctoral students in online EdD courses at a mid-sized public university in the southeastern United States. Semi-structured interview data analyzed using van Manen's (2014) hermeneutic phenomenological method explored how teaching presence and Universal Design for Learning (UDL) principles influence students' ability to maintain attention and satisfaction with their learning experiences. Findings suggest that clear, organized instructional design fosters engagement and motivation, while timely feedback from instructors enhances attention and learning continuity. The study underscores the importance of integrating both UDL principles and effective teaching presence to support attention equity and improve educational outcomes. These insights are particularly valuable for educators and administrators aiming to enhance online learning environments in EdD programs.

**KEYWORDS**

*attention, online learning, teaching presence, Universal Design for Learning (UDL)*

The rapid growth of online learning in higher education has significantly transformed the educational landscape, with a substantial portion of students now engaging in online learning environments. Recent data from the 2025 *Online Education Trends Report* indicate that remote and digital learning remains a prominent modality in higher education, with flexibility and convenience continuing to drive enrollment and satisfaction among online learners, underscoring the sustained shift toward online education in U.S. postsecondary settings (BestColleges, 2025). As more institutions prioritize online offerings, there is an increasing need to address the unique challenges associated with this mode of learning. Further, it is also important to design learning environments that promote equity and inclusivity, offering all students, regardless of background or learning needs, equal opportunities for success.

Reflecting on the Carnegie Project for the Education Doctorate's (CPED's) commitment to equity, ethics, and social justice, this study recognizes the crucial role of the Universal Design for Learning (UDL) framework developed by the Center for Applied Special Technology (CAST) and teaching presence in addressing these imperatives. UDL provides a framework to ensure all learners, regardless of their backgrounds or learning preferences, have equal opportunities to succeed (CPED, 2024; CAST, 2024). This approach is particularly relevant in examining doctoral students' lived experiences to inform the intentional design of online learning environments that mitigate attentional barriers and enhance educational outcomes for diverse doctoral student populations.

One key challenge is maintaining student attention, which is essential for effective learning outcomes (Wu & Xie, 2018). The ability to prevent distraction and sustain focus is particularly important in online environments, where students must often navigate independent learning without the physical presence of an instructor or peers. This transition from passive to active learning requires intentional instructional design that accommodates diverse attentional needs and mitigates the impact of distractions (Gillick & Magoulias, 2020; Kyei-Blankson et al., 2015). Attention challenges are especially pronounced amongst doctoral students, who often face greater demands for self-regulation and independent learning in online settings (Schroeder et al., 2019). Despite the growing prevalence of online education, there is a lack of detailed understanding regarding how doctoral students experience and manage attentional distractions.

This study explores the lived experiences of doctoral students navigating online learning environments, with a particular focus on how they perceive and engage with teaching presence and UDL. Through phenomenological inquiry, this research explores how students describe the role of these instructional elements in shaping their engagement, attention, and persistence. Findings offer insights into the ways students experience barriers and instructional supports



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in online learning, providing a deeper understanding of their challenges, strategies, and needs.

To structure this study, we begin with a literature review examining online learning design, teaching presence, UDL, and strategies for managing attention in doctoral education. The methodology section outlines the phenomenological approach and participant selection. The findings present key themes related to instructional design, engagement, procrastination, student feedback, and attention management. Finally, the discussion situates these findings within the broader literature, offering recommendations for enhancing online learning environments to promote equitable educational outcomes for diverse doctoral students.

## LITERATURE REVIEW

The evolving role of online discussion boards in higher education has been well-documented, highlighting both their potential to foster deep learning and their limitations in terms of student engagement and meaningful interaction (Bender, 2023; Kleinsasser & Hong, 2016). While previous studies have examined various aspects of online discussion boards, including their design, facilitation, and effectiveness within the Community of Inquiry (CoI) framework, significant gaps remain in understanding how these elements influence students' ability to maintain attention and achieve meaningful learning outcomes, particularly in doctoral-level online programs. This literature review explores research on online discussion boards and the CoI framework, with a specific focus on teaching presence and the UDL. Framework, to establish the foundation for how this study addresses these gaps. By investigating the lived experiences of doctoral students with teaching presence and UDL practices, this study aims to provide insights into how these factors can be leveraged to enhance attention and engagement in online learning environments, ultimately contributing to more effective instructional design and pedagogical strategies.

### Online Discussion Boards

Online discussion boards have significantly evolved in higher education, serving as integral components of asynchronous learning environments. Initially emerging as basic text-based forums, these platforms have progressed to incorporate multimedia features, interactive elements, and sophisticated user interfaces (Garrison & Anderson, 2003). This evolution has been driven by technological advancements and pedagogical research aiming to enhance student engagement, collaborative learning, and knowledge construction in online settings (Rovai, 2007). Today, online discussion boards facilitate meaningful interactions among students and instructors, promoting critical thinking, knowledge sharing, and community building across various educational contexts.

Research on the effectiveness of online discussion boards in higher education reveals mixed findings regarding their impact on learning outcomes. For example, some studies highlight their potential to foster active participation, critical reflection, and deeper understanding of course content (Shea et al., 2010; Swan, 2001). Conversely, challenges such as low student engagement, superficial interactions, and difficulties in fostering meaningful discourse have also been noted (Garrison & Cleveland-Innes, 2005; Picciano, 2017). Variations in design, facilitation, and institutional contexts can contribute to these differing outcomes which underscores the need for tailored approaches to maximize educational benefits of online discussion boards.

### Advantages and Challenges of Online Discussion Boards

Asynchronous online discussions allow students to engage with course topics at their own pace, offering flexibility absent during traditional face-to-face class discussions (Thompson, 2006). Online discussions effectively support learning in both introductory and advanced courses (Chadha, 2017). The widespread availability of discussion boards in Learning Management Systems (LMSs) has increased their popularity in higher education (Dahlstrom et al., 2014). According to Burke et al. (2024), students can achieve deep cognitive engagement through virtual discussion boards, particularly when given autonomy in their responses. Further, incorporating student choice, along with well-crafted prompts and clear instructions, can foster deeper engagement and enhance the quality of interactions among students.

Designed to foster student interaction and engagement, online discussion boards have been integral to the online educational landscape. However, in recent years, the effectiveness and implementation of online discussion boards has been questioned (Lieberman, 2019). One of the primary challenges of online discussions is low student motivation to engage and participate (Delaney et al., 2019). Amichai-Hamburger et al. (2016) suggested several psychological factors that contribute to this issue including individual differences such as personality, self-efficacy, need for gratification, and time available. In addition, confusion about an instructor's expectations (Larson et al., 2019) and unclear purpose (Pena-Shaff & Altman, 2015) also contribute to students' lack of engagement. For instance, Pena-Shaff and Altman (2015) found that structured online discussions with follow-up questions and graded responses led to more sustained student interaction compared to less structured discussions.

Online discussions that include effective initial learning prompts posed by the instructor substantially affect student engagement (Howell et al., 2014). Ertmer and colleagues (2011) explained that fact-based prompts often lead to limited subsequent contributions, with students repeating content or merely agreeing with previous comments without critical thinking. Further, poor management of discussion boards by instructors can also diminish the quality of responses. On the one hand, over-intervention by instructors can stifle student knowledge building, while insufficient involvement can lead to disengagement (Arend, 2009). Students are less likely to participate in online discussions when they do not feel connected to or valued by their peers and instructors (Townley, 2024). Emotional expression is another challenge; the absence of non-verbal cues in online discussions can lead to misunderstandings and less meaningful communication (Gao et al., 2013; Majeski et al., 2018). A carefully balanced and intentional approach to moderating online discussions may help foster a supportive and engaging learning environment.

### Community of Inquiry (CoI) Framework

The CoI framework is a well-established model used to understand and enhance online educational experiences. Developed by Garrison, Anderson, and Archer (2000) at the University of Alberta, the CoI framework posits that effective online learning occurs through the development of three interdependent elements of

the learning process: cognitive presence, social presence, and teaching presence. In the context of online learning, the CoI framework offers a structured approach to foster meaningful educational interactions by highlighting the interconnected roles of cognitive, social, and teaching presences.

Cognitive presence refers to the extent to which learners can construct and authenticate meaning through sustained reflection and discourse. Cognitive presence is the critical thinking component of the CoI framework, emphasizing the importance of engaging students in deep learning processes (Garrison et al., 2001). Social presence, on the other hand, is "the ability of participants to identify with the community (i.e., course of study), communicate purposefully in a trusting environment, and develop interpersonal relationships by projecting their individual personalities." (Garrison, 2009, p. 352). Social presence highlights the necessity of creating a supportive community that encourages interaction and collaboration (Rourke et al., 2001).

Teaching presence, the element of the CoI framework which is the primary focus of this investigation, arises from the diverse roles and responsibilities that an instructor undertakes in environments that emphasize collaboration and constructivist learning (Cleveland-Innes et al., 2024). Teaching presence is considered the most crucial element in ensuring the quality and effectiveness of the educational experience (Anderson et al., 2001). Teaching presence has been defined as "the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes" (Anderson et al., 2001, p. 5).

## Teaching Presence in the Community of Inquiry (CoI) Framework

Teaching presence in the CoI framework is divided into three primary functions: design and organization, facilitating discourse, and direct instruction. Table 1 illustrates each of the essential categories of teaching presence and their function in creating engaging and supportive online learning environments.

## Universal Design for Learning (UDL) Framework

The Universal Design for Learning (UDL) framework has evolved to better address the complexities of diverse learning environments, particularly with the latest transition from Guidelines Version 2.2 to Version 3.0. These updates underscore a commitment to inclusivity and equity by recognizing and accommodating the varied ways in which students engage, process information, and express their knowledge. In the context of online learning, where maintaining student attention is a significant challenge, these principles are especially pertinent, "It's more important than ever that online instructors have a solid understanding of how to design learning opportunities to minimize barriers and maximize engagement" (Novak & Thibodeau, 2021, p. 5). This review explores the implications of UDL Guidelines Version 3.0 for enhancing attention and attention equity in online education, thereby fostering more inclusive and effective learning experiences (CAST, 2018; Chardin & Novak, 2021; Meyer et al., 2014; Novak & Thibodeau, 2021).

*Table 1. Categories of Teaching Presence in the Community of Inquiry (CoI) Framework*

| Teaching Presence Category | Description of the Role in Online Learning |
|---|---|
| Design and Organization | • Planning, designing, and organizing course content and activities.<br>• Setting clear expectations, timelines, and learning objectives.<br>• Effective instructional design ensures that the course structure is coherent and aligns with the learning outcomes (Anderson et al., 2001). |
| Facilitating Discourse | • Ways instructors foster interaction amongst students.<br>• Achieved through moderating discussions, encouraging participation, and guiding students to engage with the material and each other critically.<br>• The goal of facilitating discourse is to sustain meaningful dialogue that promotes deeper understanding and knowledge construction (Garrison et al., 2000). |
| Direct Instruction | • Involves providing content expertise, clarifying misunderstandings, and offering feedback.<br>• Guiding students through the learning process by providing explanations, summaries, and responses to questions.<br>• Direct instruction ensures that students receive the necessary support to achieve the learning objectives (Anderson et al., 2001). |

## UDL Guidelines Version 3.0: Enhancing Attention and Attention Equity

In online learning environments, where the physical presence of instructors and peers is limited, sustaining attention can be particularly challenging. The flexibility and autonomy that online learning offers can also lead to increased opportunities for distraction, making the principles of UDL even more relevant. For instance, the guideline to "address biases, threats, and distractions" (7.4) in Version 3.0 speaks directly to the need for creating online learning environments that are inclusive and designed to minimize external and internal distractions (Houston, 2018; Novak & Thibodeau, 2021). Scholars like Rogers and Gronseth (2021) posit educators can support diverse learner preferences through multimodal opportunities for learning and the use of experience-centered techniques. Integrating UDL into educational practice not only addresses immediate learning barriers but also broader institutional challenges of equity and inclusion (Chardin & Novak, 2021; Dell et al., 2015; Rao, et al., 2021). These practices are instrumental in sculpting an educational landscape that is responsive to the social justice needs of the community, thereby aligning with the CPED's (2024) emphasis on transformative practices in educational settings.

The updated UDL guidelines emphasize the critical role of engagement, representation, and expression in sustaining student attention, particularly in online environments where distractions are prevalent. For example, in the Engagement principle, Version 3.0 introduces new guidelines such as nurturing joy and play (7.3) for both youth and adult learners and addressing biases, threats, and

distractions (7.4). These additions reflect an understanding that emotional engagement and a sense of psychological safety are foundational to maintaining student focus and fostering persistence in learning. Research supports that when students feel emotionally secure and see their identities reflected in the curriculum, their ability to focus and engage meaningfully increases (Darling-Hammond et al., 2019; Gay, 2018; Novak, 2016).

Equally important, the effectiveness of UDL depends largely on how it is implemented. While UDL Version 3.0 offers significant potential for enhancing attention and attention equity in online learning environments, outcomes can vary based on the fidelity and context of its application (Novak, 2016; Rao & Meo, 2016). Successful implementation requires careful consideration of learner variability and the learning environment, as well as ongoing adjustments and use of the three UDL principles to meet those needs (Almeqdad et al., 2023, 2016; Novak & Thibodeau, 2021). The literature presents a balanced view, acknowledging both the strengths and limitations of UDL in addressing the challenges of sustaining attention in digital learning contexts (Meyer et al., 2014). As online education continues to expand, this research is needed to explore how UDL can be effectively applied to support attention and engagement, ensuring that all students can benefit from equitable and inclusive online learning environments.

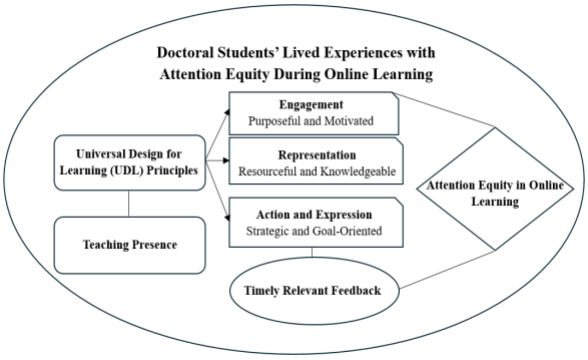
## Research Design and Conceptual Framework

This study employed a phenomenological design to explore how doctoral students describe their lived experiences with inclusive and accessible instructional design and teaching presence in asynchronous online learning environments. Phenomenology, rooted in the philosophical work of Edmund Husserl (1977) and further advanced by scholars such as Heidegger (2005) and Merleau-Ponty (2004), is centered on uncovering the essence of experiences as they are lived. Adopting a phenomenological approach aligns with CPED's guidance to deeply explore the lived experiences of learners, thereby understanding and interpreting how doctoral students perceive and articulate their experiences within the context of current online instructional practices (CPED, 2024).

Among the various phenomenological methodologies, van Manen's (2014) hermeneutic phenomenology was selected as the most appropriate for this study. Van Manen's method emphasizes the interpretive process of making meaning from lived experiences, which aligns with the study's focus on how doctoral students describe their experiences with teaching presence and UDL principles in shaping their engagement with online coursework and discussion boards. Unlike descriptive phenomenology, which aims for a more objective recounting of experiences, hermeneutic phenomenology allows for a deeper interpretive analysis that incorporates the researcher's insights and relevant theoretical frameworks (van Manen, 2014).

This approach was chosen over others because it facilitates a nuanced exploration of how students describe their interactions with instructional design and teaching presence, particularly in relation to maintaining attention and engagement in online learning. The research questions guiding this study required a methodological approach that could capture the depth and complexity of these experiences. By focusing on students' subjective descriptions, this study aims to provide a rich, interpretive understanding of attention and engagement in online environments, contributing valuable insights to the field of online educational research.

*Figure 1. Conceptual Framework for Exploring Attention Equity in Online Learning*




## Research Questions

The research questions align with the qualitative nature of this phenomenological research where the participants' subjective descriptions and interpretations about teaching presence were central to understanding their lived experience with attention during online learning. In this study, two primary research questions guided the exploration of doctoral students' experiences in the online learning environment:

> RQ1: How do doctoral students describe their lived experience with inclusive and accessible instructional design when engaging with online materials and discussion boards as part of their academic coursework?
>
> RQ2. How do doctoral students describe their lived experience with teaching presence in shaping their online learning experiences while engaged in online learning and discussion board assignments?

# METHODS

## Participants

The participants in this study were doctoral students enrolled in online doctoral-level courses at a mid-sized, public university in the southeastern United States. A purposive sampling strategy was used to select participants who had experience with online learning and could provide rich, detailed descriptions of their experiences. Inclusion criteria included doctoral students who were: (1) enrolled in a program of study in the College of Education, (2) active in their program within the past three years, and (3) actively enrolled in courses requiring asynchronous online learning at the time this study was conducted.

## Data Collection

Data were collected through semi-structured interviews, designed to elicit detailed descriptions of participants' lived experiences with teaching presence and attention in online learning environments. The interview protocol included open-ended questions that encouraged participants to reflect on their experiences with online instructional design, engagement with discussion boards, and interactions with instructors. Interviews were conducted both face-to-face and via Zoom, each lasting approximately 60-90 minutes.

Interviews were audio-recorded with participants' consent and transcribed verbatim for analysis. Field notes were also taken during and after the interviews to capture initial impressions and observations.

## Data Analysis

The data analysis followed van Manen's (2014) hermeneutic phenomenological method involving several iterative steps to capture the essence of the participants' experiences. Initially, interview transcripts were read multiple times to gain an overall understanding of the participants' experiences with teaching presence, attention, and the presence of UDL principles in online learning environments. Next, segments of text were identified and coded according to the research questions and the conceptual framework, which included UDL principles. These codes were then grouped into themes that encapsulated the core aspects of the participants' experiences, highlighting how teaching presence and UDL principles influenced the students' attention and engagement.

In the interpretation phase, the themes were contextualized within the participants' lived experiences, drawing on relevant literature and theoretical frameworks, including teaching presence and UDL principles, to deepen understanding. This interpretive process highlighted the complex relationship between teaching presence, UDL principles, and student attention in online learning.

## Ethical Considerations

This study adhered to ethical standards outlined by the American Educational Research Association (AERA) and the American Psychological Association (APA), ensuring transparency, informed consent, and the protection of participants' rights and well-being (APA, 2020; Johnson & Christensen, 2019). Informed consent was obtained, and participants were assured of confidentiality, anonymity, and the right to withdraw at any time without penalty. In addition, to protect the anonymity of participants and ensure confidentiality, each participant was assigned a pseudonym. This practice is consistent with ethical standards for qualitative research, which prioritize safeguarding participants' identities and personal information. By using pseudonyms, the study maintains the privacy of participants while allowing for an in-depth exploration of their experiences (Wiles et al., 2008). Confidentiality was further maintained through anonymization and secure data storage. The research protocol received Institutional Review Board (IRB) approval in compliance with ethical guidelines.

## FINDINGS

This study explored how doctoral students describe their lived experiences with inclusive and accessible instructional design and teaching presence in asynchronous online EdD programs, examining how these elements influence their ability to maintain attention and achieve meaningful educational outcomes. Four key themes emerged from the data: the importance of clear and inclusive instructional design, the value of timely and relevant feedback, the challenges associated with procrastination and distractions, and the need for effective teaching methods and resources. These themes provide insight into how UDL and teaching presence can be leveraged to enhance online learning environments.

## Theme 1: Importance of Clear and Inclusive Instructional Design

The "Importance of Clear and Inclusive Instructional Design" emerged as a key factor influencing student engagement and learning outcomes in asynchronous online doctoral programs. Participants consistently highlighted that well-organized, clearly structured, and inclusive instructional design significantly enhances their learning experience. Various aspects of instructional design—such as the layout of course materials, the clarity of instructions, and the alignment of assignments with course objectives—were identified as essential elements that either supported or hindered students' ability to focus and succeed in their studies.

### Clear Organization and Structure

Participants emphasized the importance of a well-organized course structure. For instance, Anthony remarked, "It depends on the layout of Canvas and the way the professor's laid them out differently... that's where it gets the most frustrating and where my struggles come from . . . I wish Canvas had ways to . . . make our own little notes or highlights . . . by the end of the semester . . . it can be difficult." This quote illustrates the challenges students face when course materials are not intuitively organized, making it difficult to maintain focus and keep track of essential content.

Similarly, Nancy emphasized the value of clear timelines and accessible content, stating, "I like when things are online when they're posted . . . I have a really big pet peeve when faculty don't . . . open up the assignment tab where you can see everything chronologically, because then it helps me plan things out." The frustration expressed here reflects a broader need for transparency and predictability in course design, which aids in time management and reduces cognitive load.

### Alignment with Learning Goals

The alignment of assignments and activities with overall learning goals was another crucial aspect highlighted by participants. Olivia stated, "Organization to me helps a lot in an online course and with asynchronous learning . . . I find that in asynchronous learning, it often feels like instructors just flood you with reading and posts and those sorts of things." A lack of clear alignment between course materials and learning objectives can overwhelm students, detracting from the perceived relevance of the content.

Kathleen supported this theme by noting the benefits of breaking down assignments into manageable parts: "When the professor breaks down the assignment . . . that definitely helps. . . instead of worrying about 10 pages. I'm worried about one or two at a time." This approach reduces student anxiety and ensures deeper engagement with each component of the assignment, leading to a more meaningful learning experience.

### Inclusivity in Instructional Design

Inclusivity in instructional design was another recurring theme. Chelsea appreciated meticulously organized courses: "Sometimes, I've had some classes . . . that have been like, beautiful . . . where everything is labeled . . . grouped, whether it's in weeks or class meetings . . . or just whatever they are." Such inclusive designs ensure that all students, regardless of their individual learning styles or schedules, can access and engage with the material effectively.

Harrison highlighted the issue of perceived "busy work" in assignments, which can detract from the inclusivity of instructional design: "Having weekly or even biweekly assignments like discussion posts, quizzes . . . it just seems to be hindering me honestly . . . I see the assignments just as busy work." This sentiment suggests that instructional design should not only be clear and well-organized but also meaningful and directly connected to learning outcomes, respecting students' time and cognitive efforts.

## Theme 2: Value of Timely and Relevant Feedback

The "Value of Timely and Relevant Feedback" was identified as a central factor influencing student satisfaction, engagement, and learning outcomes in asynchronous online doctoral programs. Participants consistently emphasized that timely, constructive feedback is crucial for progressing effectively through coursework. Feedback was seen as essential not only for understanding course material but also for motivating students and reinforcing their academic efforts.

### Timeliness of Feedback

Timeliness of feedback was a recurring concern among participants. Nancy highlighted the challenges posed by delayed feedback: "If there's anything unclear in the module . . . there's kind of a pause in time where I'm waiting for a response, and that part is challenging for me." This quote illustrates how the lack of immediate feedback can disrupt a student's workflow, causing unnecessary anxiety and delays in completing assignments.

Similarly, Kathleen discussed the impact of delayed feedback: "There wasn't always enough time for a faculty member to get to me to answer my question. And then I'm just sitting there with my work like probably wrong, but I don't know if it's right or wrong until the end of class." The uncertainty caused by not receiving timely feedback can lead to a lack of confidence in one's work and may cause students to question their understanding of the material, which is particularly detrimental in a rigorous academic setting.

### Relevance and Constructiveness of Feedback

In addition to timeliness, the relevance and constructiveness of feedback were identified as key components of effective online instruction. Chelsea provided insight into this need by stating, "I don't think there is much of it until your post is graded . . . they might say a couple of things that you pointed out . . . 'nice job mentioning this not, not everybody caught this.'" Specific and targeted feedback helps students understand what they did well and where they can improve, which is crucial for their academic growth.

Olivia emphasized the importance of feedback that encourages deeper reflection and critical thinking: "I think discussion posts have a purpose . . . they do a really good job of giving people an opportunity to synthesize and ask questions... but they don't always . . . come to fruition like the intended purpose isn't always met." This suggests that feedback should go beyond surface-level comments, aiming to foster deeper engagement with the material.

### Motivational Impact of Feedback

The motivational aspect of feedback was another significant finding. Participants indicated that receiving prompt and relevant feedback greatly enhances their motivation to engage with the course material. Harrison mentioned how feedback tied to their research interests increased their engagement: "The more the doctoral professors can tie in your research topic to . . . the class content, I think the more invested you're going to be in the assignments." This highlights the importance of feedback that is not only constructive but also personally meaningful, fostering a deeper connection to the material.

Kathleen reflected on how feedback—or the lack thereof—impacts their approach to assignments: "The procrastination method has not failed me yet, which is terrible . . . I leave things . . . to the last minute, but then I get an A." While this comment reflects a reliance on last-minute work, it also suggests that the feedback received has been positive and reinforcing, albeit potentially encouraging a less-than-ideal work pattern. Nevertheless, the role of feedback in validating student efforts and guiding them toward academic success is evident.

## Theme 3: Challenges with Procrastination and Distractions

The theme "Challenges with Procrastination and Distractions" emerged as a significant factor impacting the learning experiences of doctoral students in asynchronous online programs. Participants frequently discussed the difficulties they face in managing their time effectively and maintaining focus in a self-paced learning environment. The data reveals that procrastination and distractions are common obstacles that can undermine academic performance and personal well-being, particularly in an online learning context where external accountability is minimized.

### Procrastination as a Coping Mechanism

Several participants acknowledged procrastination as a coping mechanism, particularly when faced with overwhelming workloads or challenging assignments. Anthony candidly reflected on their procrastination habits: “You know, I'm a bit of a procrastinator by nature. I, for whatever reason, have always kind of worked better under pressure. I work better with those deadlines looming . . . I create a lot of anxiety and stress for myself . . . And, but I guess it's just it's a it's a it's always a . . . well, it’s stress by choice. . .” This quote highlights how some students intentionally use last-minute deadlines as a self-imposed motivator, despite recognizing its contribution to stress and potential declines in learning depth and retention.

Similarly, Harrison noted that procrastination often leads to a rush of productivity as deadlines approach: "When the deadline is looming, I suddenly become laser-focused, and I’m able to get a lot done in a short amount of time." This comment reflects a common pattern where the pressure of an impending deadline triggers a burst of focused work. However, this approach can also lead to feelings of anxiety and burnout, as well as a lack of time for thorough revision and reflection.

### Distractions in the Home Environment

Participants also highlighted the challenges of managing distractions in their home environment. Nancy described how the presence of everyday tasks and responsibilities can divert attention away from academic work: "There's always a to-do list in my head . . . I'm a multitasker at heart, and it's hard to not have laundry going in the background and someone else needing something from me." This quote underscores the difficulty of maintaining focus in a

setting where multiple demands compete for attention, leading to fragmented time and reduced productivity.

Cheryl echoed this sentiment, emphasizing how the lack of a structured learning environment can lead to distractions: "It's easy to get distracted especially if it's asynchronous . . . but at the same time when I have to do it, I will just sit down and do it." This comment illustrates the tension between the flexibility of asynchronous learning and the challenge of self-discipline, where students must create their own structure and manage distractions independently.

### Impact of Distractions on Academic Performance

The impact of distractions on academic performance was another key finding under this theme. Participants expressed that distractions often lead to incomplete or lower-quality work, particularly when combined with procrastination. Gerry noted how distractions can disrupt the flow of work and lead to a decrease in the quality of their assignments: "If I've read through two articles already, and I'm like okay, my eyes need a break. I look at something fun instead . . . but since I use this computer for work . . . if one of those notifications comes up, that will distract me immediately." This quote highlights how digital distractions, in particular, can be a significant barrier to sustained attention and productivity in an online learning environment.

Kathleen also shared how distractions can cause them to lose track of their progress, further exacerbating the tendency to procrastinate: "It's very often that I'll be watching something, doing something, and then I'm just thinking, 'Oh, I didn't send out that calendar invite. Oh, I didn't, I oh, I know I'm reading this, but when is the other paper due? Let me just double check that for a second.'" This comment reflects the ongoing mental juggling that many students experience, where competing priorities and constant interruptions make it difficult to maintain a steady focus on academic tasks.

### Strategies to Overcome Procrastination and Distractions

While procrastination and distractions were identified as major challenges, some participants also discussed strategies they use to mitigate these issues. Harrison mentioned the importance of creating a dedicated study space to minimize distractions: "I've tried working in spaces where there's a lot of chitter chatter around—Starbucks, Panera. That's why I go out to those places to do these study groups so that I can just have chatter around me . . . that helps keep me awake and the thought that people are looking at me and other people are being productive, motivates me to stay awake and be productive." This strategy reflects an understanding that changing one's environment can help reduce distractions and foster a more productive mindset.

Additionally, Olivia discussed the role of self-imposed deadlines and structured study sessions in combating procrastination: "I always try to do the post early in the week so that it does give people an opportunity to respond . . . I'll do my original post. I'll probably give it two days, and then I'll check back in and start doing my own responses." By setting personal deadlines and breaking tasks into smaller, manageable parts, this participant demonstrates a proactive approach to managing time and reducing the likelihood of last-minute cramming.

## Theme 4: Need for Effective Teaching Methods and Resources

The "Need for Effective Teaching Methods and Resources" emerged as a critical theme from the participants' experiences, reflecting the essential role that teaching strategies and educational resources play in enhancing learning outcomes in asynchronous online doctoral programs. Participants consistently emphasized the importance of well-designed instructional methods, relevant materials, and accessible resources that cater to diverse learning needs. This theme underscores the need for thoughtful pedagogical approaches and the provision of high-quality resources to support student success in online learning environments.

### Structured and Engaging Teaching Methods

Participants highlighted the significance of structured teaching methods that engage students and facilitate deeper understanding of the course content. Harrison articulated the need for more cohesive instruction that ties the course content to students' research interests: "The more the doctoral professors can tie in your research topic to, you know, the class content, I think the more invested you're going to be in the assignments." This quote underscores the value of aligning course material with students' academic and professional goals, which can enhance motivation and engagement.

Similarly, Juan emphasized the preference for instructional methods that focus on in-depth exploration of topics rather than superficial coverage: "Dividing the modules by week is to me a little less useful or helpful than dividing them by topic. I would rather just see the topic, even if it's going to take us two, three weeks to go through this." This perspective suggests that students benefit from teaching methods that allow for sustained engagement with complex subjects, rather than being rushed through content.

### Challenges with Inconsistent or Ineffective Teaching Approaches

Participants also discussed the challenges they face when teaching methods and resources do not meet their learning needs. Nancy described how inconsistencies in instructional design across different courses can lead to confusion and frustration: "We've had classes where things are very organized, and it's very clear on what is expected and when things are due. And then we've had other courses where the expectations aren't as clear." This quote highlights the importance of consistency in teaching approaches and the detrimental impact that unclear expectations can have on student learning.

Chelsea expressed a similar sentiment, noting that ineffective teaching methods can diminish the learning experience: "You serve the volleyball and then you hit it back once and then that's it. And that's the whole game." This metaphor reflects the frustration that arises when teaching methods do not encourage continuous engagement or deeper exploration of the material. It suggests that when instructional approaches are overly simplistic or fail to stimulate ongoing interaction, they can leave students feeling unchallenged and disengaged.

### Need for Relevant and Accessible Resources

In addition to effective teaching methods, participants emphasized the need for relevant and accessible educational resources that support their learning. Kathleen discussed the

importance of breaking down assignments into manageable parts, which helps in maintaining focus and avoiding becoming overwhelmed: "When the professor breaks down the assignment . . . that definitely helps because otherwise that might be too much. Instead of worrying about 10 pages, I'm worried about one or two at a time." This approach not only aids in managing workload but also ensures that students can engage with the material more deeply, without feeling daunted by the scale of the task.

Olivia highlighted the role of accessible resources in supporting student success: "When there's a good balance between the instruction that we're getting, and we're using . . . the asynchronous time to do some things on my own . . . when you have those things that are building toward a final paper or final presentation or both or project whatever the case is . . . that is when I feel like I'm at my best." This comment illustrates how well-curated resources that align with course objectives can help students achieve better outcomes by enabling them to apply what they have learned in meaningful ways.

### Effective Use of Technology in Teaching

Participants also recognized the potential of technology to enhance teaching methods and make resources more accessible. Nancy mentioned the value of having well-organized online platforms where students can easily access course materials and stay on track with assignments: "I like when things are online when they're posted . . . I have a really big pet peeve when faculty don't post or open up the assignment tab where you can see everything chronologically. It helps me plan things out." This quote emphasizes the need for instructors to leverage technology effectively to support students' organizational needs and reduce cognitive load.

Gerry also pointed out how technology can facilitate more interactive and engaging learning experiences: "The preparation happens before class, but the actual work happens in the class . . . Different than anything asynchronous where the work and the preparation happened outside of class." This distinction between synchronous and asynchronous learning highlights the importance of using technology to create spaces for active participation and real-time feedback, even in an online environment.

## DISCUSSION

Table 1 presents a synthesis of the key themes derived from the phenomenological analysis of doctoral students' experiences with online learning environments, highlighting their impact on student engagement, attention management, and overall learning satisfaction. This summary serves as a foundation for the discussion that follows, connecting these lived experiences with theoretical implications and practical applications for enhancing online instructional design.

### Importance of Clear and Inclusive Instructional Design

Participants consistently highlighted the critical role of clear and inclusive instructional design in fostering student engagement and success. The organization and structure of online courses were frequently mentioned as factors that significantly impacted students' ability to focus and succeed. Clear timelines, accessible content, and well-organized course materials were identified as essential elements that reduce cognitive load and help students manage their time effectively.

*Table 1. Key Themes of Doctoral Students' Experiences with Online Learning Environments*

| Theme | Description | Representative Quotes |
|---|---|---|
| Clear and inclusive instructional design | Emphasizes the impact of structured, accessible content on student engagement and success. | "It depends on the layout of Canvas and the way the professor's laid them out differently. . . that's where it gets the most frustrating and where my struggles come from." (Anthony) |
| Timely and relevant feedback | Highlights the importance of timely feedback from instructors for enhancing student learning and confidence. | "If there's anything unclear in the module. . . there's kind of a pause in time where I'm waiting for a response and that part is challenging for me." (Nancy) |
| Challenges with procrastination and distractions | Discusses how external distractions and procrastination affect students' focus and productivity. | "There's always a to-do list in my head. . . I'm a multitasker at heart and it's hard to not have laundry going in the background and someone else needing something from me." (Nancy) |
| Effective teaching methods and resources | Addresses the need for engaging and effective teaching strategies that align with student need | "The more the doctoral professors can tie in your research topic to. . . the class content I think the more invested you're going to be in the assignments." (Harrison) |

These findings align with CPED's (2024) commitment to equity and inclusivity in education, particularly in addressing the diverse needs of learners in online environments. The CPED (2024) framework emphasizes the importance of designing doctoral education that is equitable and responsive to the needs of all students, including those who may face barriers to success in traditional learning environments. By ensuring that course materials are well-organized and accessible, instructors can create learning environments that accommodate a wide range of learning preferences and reduce attentional barriers to success. This approach not only supports attention equity but also fosters a more inclusive educational experience, aligning with CPED's (2024) emphasis on social justice and transformative practice.

### Value of Timely and Relevant Feedback

Timely and relevant feedback was identified as a dominant factor influencing student satisfaction and engagement in online courses. Participants emphasized that prompt and constructive feedback is important for progressing effectively through coursework and maintaining motivation. Feedback that is not only timely, but also relevant and constructive helps students understand what they did well and where they can improve, thereby enhancing their overall learning experience (Cleveland-Innes et al., 2024).

This theme highlights the importance of teaching presence in online learning environments, which is a critical component of the CPED (2024) framework's focus on practical and reflective teaching practices. By providing timely and relevant feedback, instructors can help students stay on track, reduce anxiety, and increase their confidence in their academic abilities. This aligns with the principles of the CoI framework, which emphasizes the role of teaching presence in facilitating meaningful educational interactions and supporting student learning (Garrison, et al., 2001). Additionally,

timely and relevant feedback is essential for advancing CPED's (2024) goal of preparing educational leaders who are equipped to address complex problems of practice in diverse educational settings.

### Challenges with Procrastination and Distractions

Procrastination and distractions emerged as significant challenges that affect students' ability to maintain focus and productivity in online learning environments (Rahimi et al., 2023). Participants frequently discussed the difficulties they faced in managing their time effectively and the impact of external distractions on their academic performance. The flexibility of online learning, while beneficial in many ways, can also lead to increased opportunities for procrastination and distractions, particularly in self-paced learning environments.

Addressing these challenges requires a combination of effective instructional design and supportive teaching practices, both of which are central to the CPED (2024) framework's emphasis on solving real-world problems of practice. By creating structured learning environments and providing regular, meaningful feedback, instructors can help students stay engaged and focused on their coursework. Additionally, integrating UDL principles into course design can help minimize distractions and support students in developing effective time management strategies (CAST, 2024). This approach not only helps students overcome common challenges in online learning but also aligns with CPED's (2024) commitment to equity and inclusivity by providing students with the tools and strategies they need to succeed.

### Need for Effective Teaching Methods and Resources

The need for effective teaching methods and resources was an essential theme that emerged from the data. Participants emphasized the importance of well-designed instructional methods, relevant materials, and accessible resources that cater to diverse learning needs. Effective teaching methods that align with students' academic and professional goals were seen as indispensable for enhancing motivation and engagement in online learning environments.

This theme underscores the importance of instructional design that is both inclusive and responsive to the needs of diverse learners, a key principle of CPED's (2024) framework.

By incorporating UDL principles into teaching practices, instructors can create learning environments that support a wide range of learning preferences and promote deeper engagement with course content. This approach not only enhances the quality of the learning experience but also aligns with CPED's (2024) emphasis on creating transformative educational practices that are equitable and inclusive. Effective teaching methods and instructional resources are essential for preparing doctoral students to become leaders who can address complex educational challenges, a central goal of CPED (2024).

## LIMITATIONS AND FUTURE RESEARCH

A key limitation of this study could be viewed as its phenomenological design, which focuses on in-depth exploration of a small group of doctoral students' experiences within a single institution. While this approach provides valuable rich, qualitative insights, the findings are not generalizable to all online graduate programs. Additionally, reliance on self-reported data introduces potential biases, such as recall bias or social desirability bias, where participants' descriptions may not fully align with their actual engagement and experiences (Creswell & Poth, 2018; van Manen, 2014). The study's scope is also confined to EdD students, limiting the applicability of findings to other doctoral populations, such as PhD candidates, who may experience online learning differently.

Future research could examine teaching presence and UDL principles across diverse institutions and doctoral disciplines. Longitudinal and mixed-methods studies incorporating interviews, course analytics, and attention-tracking software could provide deeper insights into student engagement and learning outcomes. Expanding research in these areas could help refine best practices for fostering attention equity in online doctoral education.

## CONCLUSION

The findings of this study highlight the indispensable role of teaching presence and UDL principles in supporting attention equity and enhancing learning outcomes in online doctoral programs. Teaching presence, encompassing the design, facilitation, and direct instruction within online learning environments, is essential for creating an engaging and supportive educational experience. By focusing on clear and inclusive instructional design, providing timely and relevant feedback, addressing challenges with procrastination and distractions, and implementing effective teaching methods and resources, educators can create more effective and inclusive online learning environments.

The emphasis on teaching presence throughout this study underscores its significance in shaping positive learning experiences and student outcomes. These insights contribute to the ongoing dialogue within CPED and the broader field of online education, offering practical strategies for enhancing student engagement and success in diverse learning environments. This alignment with CPED's (2024) principles further emphasizes the importance of designing and implementing educational practices that are equitable, inclusive, and transformative.

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