



Fostering Cognitive Presence in an Online EFL Course through Strategic Task Design

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Abstract

This study investigates students' cognitive presence in an online English as a Foreign Language (EFL) course in Finland. Cognitive presence, a key component of the Community of Inquiry model, refers to the extent to which learners actively construct and confirm meaning through sustained reflection and discourse [1]. To facilitate this deeper learning process, we implemented task-based language learning [2] and developed a task design aligned with the practical inquiry framework [3]. This framework recommends a phased approach consisting of four stages: triggering an event, exploration, integration, and resolution. We designed tasks to correspond to each phase, ensuring they were authentic, real-world tasks focused on completion [2].

The study involved 35 adult learners who participated in weekly 1.5 hours online lessons for one academic year. A questionnaire was distributed at the end of the course to assess students' perceptions of the task design. The quantitative data were analysed using statistical methods, while descriptive analysis was employed for the qualitative responses.

The results indicated that cognitive presence is enhanced by several factors, including course content, assignments, interaction, and teacher activities. In addition, valuable discussions, connecting new information to prior knowledge, strong teacher support and feedback, as well as a positive, encouraging atmosphere, are crucial contributors.

Keywords: Cognitive presence, online language learning, TBLT

1. Introduction

The rapid expansion of online education necessitates a deeper understanding of how to create effective digital learning environments that foster meaningful engagement and deep learning. In the context of language education, this challenge becomes particularly complex as language learning inherently requires interaction, communication, and authentic practice opportunities. The Community of Inquiry (CoI) framework [1] provides a robust theoretical foundation for understanding and designing online learning experiences through its three interconnected components: social presence, teaching presence, and cognitive presence.

While social and teaching presence have received considerable attention in online learning research, cognitive presence remains underexplored. Contemporary literature also lacks a description of factors that influence cognitive presence [4]. Cognitive presence, defined as "the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry" [1] represents the core educational objective of any learning experience. In online language learning environments, fostering cognitive presence becomes crucial for developing not only linguistic competence but also critical thinking skills and meaningful learning outcomes.

This study addresses the gap in research by investigating how strategic task design, grounded in Task-Based Language Teaching (TBLT) principles and aligned with the practical inquiry model, can enhance cognitive presence in an online EFL course. By examining the intersection of TBLT methodologies with the cognitive presence framework, this research contributes to our understanding of effective online language pedagogy.

2. Theoretical framework

2.1 Cognitive Presence in the Community of Inquiry Framework



The Community of Inquiry framework positions cognitive presence as the intellectual core of the educational experience. Garrison and Arbaugh [5] describe cognitive presence as involving four phases of practical inquiry: triggering event, exploration, integration, and resolution. The triggering event phase initiates inquiry through the presentation of a problem or dilemma that captures learners' attention and curiosity. The exploration phase involves information exchange and brainstorming as learners seek to understand the problem. During integration, learners construct meaning by connecting ideas and synthesising information. Finally, the resolution phase involves the application of new knowledge to solve the initial problem or address related issues.

Previous studies have highlighted various factors that influence cognitive presence in online learning environments. Garrison et al. [1] emphasise the significant impact of peer communication on cognitive presence. More and Miller [6] demonstrate that active engagement with peers and course content through interaction and collaboration enhances cognitive presence. Li [7] establishes that effective teaching presence is fundamental in supporting both social and cognitive presence, contributing to meaningful learning outcomes.

2.2 Task-Based Language Teaching and Cognitive Presence'

Task-Based Language Teaching, introduced alongside Communicative Language Teaching in the early 1980s, represents a practical application of communicative principles in language education. TBLT is characterised by its focus on process rather than product, emphasis on purposeful activities that promote communication and meaning, and the principle that learners acquire language through interactive and purposeful engagement with tasks [8].

The alignment between TBLT and cognitive presence becomes evident when examining their shared emphasis on authentic, meaningful engagement with content. Akyol and Garrison [3] argue that TBLT's focus on meaningful and authentic tasks encourages learners to engage deeply with the language, facilitating higher levels of cognitive processing and peer interaction. Gui and Ismail [9] further note that this approach promotes not only language proficiency but also critical thinking and creativity, essential components of cognitive presence. Further, Ismail et al. [10] state that TBLT engages learners in real-life situations, activating various cognitive functions. Activities requiring meaning negotiation or problem-solving compel learners to think critically and collaborate, deepening their engagement with the language. This learner-centered methodology naturally cultivates an interactive and dynamic learning environment essential for fostering cognitive presence.

The integration of technology in TBLT has opened new possibilities for creating authentic, engaging tasks in online environments. Technology-enhanced TBLT can provide learners with access to real-world resources, facilitate collaboration across geographical boundaries, and offer multimedia-rich learning experiences that support different learning styles. However, successful implementation requires careful consideration of how technological tools can support rather than hinder the core TBLT principles of authentic communication and meaningful task completion.

3. Methodology

This study was conducted in an online EFL course offered in Finland, involving 35 adult learners who participated in weekly 1.5-hour online lessons over one academic year. The course was designed to integrate the TBLT principles with the practical inquiry framework to enhance cognitive presence in the online learning environment. A comprehensive online questionnaire was distributed at the end of the course to assess students' perceptions of the task design and their experience of cognitive presence. The questionnaire included both quantitative measures using Likert scales and qualitative open-ended questions, allowing for detailed responses about learners' experiences. The quantitative data were analysed using descriptive statistics to identify patterns in learner responses, while qualitative responses underwent thematic analysis to identify key factors contributing to cognitive presence in the online EFL environment.



4. Results

The analysis revealed that the students perceived the following aspects as enhancing their cognitive presence: learning design, interaction and collaboration with peers, connection to prior knowledge, teacher's impact, and the positive learning atmosphere. Well-balanced learning design was consistently reported to enhance students' perceived cognitive presence. Students stated that the relevant course content and assignments significantly strengthened their cognitive engagement. The tasks, which were well-structured and authentic, aligned seamlessly with the practical inquiry framework. This alignment facilitated deeper learning by guiding participants through the four phases of cognitive presence: triggering event, exploration, integration, and resolution. This systematic progression provided a clear learning trajectory, supporting sustained reflection and the construction of meaning.

The coherent structure of the course design was particularly valued, as was the emphasis on authentic, real-world tasks, which resonated strongly with learners due to their practical relevance. The integration of multimedia elements and varied task types across these four phases created what learners described as an "interesting learning experience," effectively maintaining their attention and motivation throughout the course duration. The diversity in task design, supported by a variety of digital teaching tools, clearly contributed to this positive learning experience.

Further, peer interaction was identified as a crucial factor in developing cognitive presence. Learners highly valued opportunities to engage in meaningful discussions, negotiate meaning, and collaborate on problem-solving tasks, all of which were effectively facilitated by the properly structured online environment.

Furthermore, a strong teacher presence proved fundamental in supporting cognitive presence, particularly in an online learning environment. This was manifested through the importance of structured feedback, guided discussions, and clear instructional design. Teachers' strategic facilitation was key in helping learners navigate the inquiry process and maintain engagement across all phases.

The integration phase of the practical inquiry model was particularly effective in helping learners connect new information to their existing knowledge base, a process identified as crucial for meaningful learning and cognitive engagement.

Finally, the creation of an encouraging, supportive online environment significantly contributed to learners' willingness to engage in critical thinking and take the intellectual risks necessary for deep learning.

The initial triggering event tasks successfully captured learners' attention and sparked inquiry through multimedia-rich ice-breakers and warm-up activities. Learners reported high levels of initial engagement and curiosity, especially when tasks presented intellectually stimulating scenarios connected to real-world experiences. The tasks aligned perfectly with TBLT principles that emphasise authentic, meaningful tasks. Following this, the exploration tasks, which included both text-based and collaborative activities, effectively supported the information-gathering and brainstorming phase of inquiry. Learners appreciated the balance between individual reflection and collaborative investigation during this stage. This phase particularly benefited from TBLT's emphasis on process over product, allowing learners to focus on meaning-making rather than solely on linguistic accuracy during their initial exploration. The integration tasks, course book activities and discussion-based tasks facilitated the crucial process of meaning construction and knowledge synthesis. Learners highly valued tasks that explicitly required them to connect new learning to their existing knowledge and experiences. Finally, resolution tasks, such as role-plays and presentations, offered meaningful opportunities for learners to demonstrate and consolidate their learning. These applied tasks effectively closed the inquiry loop by requiring the practical application of newly constructed knowledge. The TBLT emphasis on real-world task completion proved especially valuable in this phase, as learners could clearly see the practical relevance of what they had learned.



5. Discussion and Conclusion

This study contributes to the previous research by demonstrating how TBLT principles can be systematically integrated with the cognitive presence framework. Unlike previous studies [4] that have examined cognitive presence in general online learning contexts, our research demonstrates how the inherently communicative and authentic nature of TBLT tasks can enhance each phase of cognitive presence.

The alignment between TBLT's focus on meaningful communication and cognitive presence's emphasis on collaborative knowledge construction creates synergies that benefit language learning. Furthermore, this study demonstrates that strategic task design, grounded in TBLT principles and aligned with the practical inquiry framework, can effectively foster cognitive presence in online language courses. The systematic integration of authentic, meaningful tasks across the four phases of cognitive presence—triggering event, exploration, integration, and resolution—creates a coherent learning experience that promotes deep engagement and meaningful learning.

Our findings also highlight the importance of several key factors in enhancing cognitive presence: well-designed course content and assignments, meaningful interaction and collaboration opportunities, strong teacher support and feedback, explicit connections to prior knowledge, and the maintenance of a positive, encouraging learning atmosphere. These factors work synergistically to create an online learning environment that supports not only language acquisition but also the development of critical thinking skills and meaningful learning outcomes.

By thoughtfully integrating TBLT principles with the cognitive presence framework, educators can create online learning experiences that are both pedagogically sound and engaging for learners. Systematic task sequencing, which aligns task design with the practical inquiry model, provides a coherent framework essential for promoting deep learning and cognitive presence. Furthermore, authentic task selection, i.e. tasks that resemble real-world situations and connect to learners' experiences, significantly enhances intrinsic motivation and sustains cognitive presence. It is also crucial to offer balanced interaction opportunities, combining individual reflection with collaborative activities to support different aspects of cognitive presence development.

Also, strategic teacher facilitation, demonstrated through active teacher presence, feedback, guidance, and discussion facilitation, is vital for maintaining cognitive presence throughout the entire learning process. Lastly, the thoughtful integration of technology, specifically multimedia and collaborative tools, can genuinely enhance core learning objectives.

As online education continues to evolve, understanding how to foster cognitive presence through strategic task design becomes increasingly important. Similarly, Sadaf et al. [11] state that, particularly for fostering cognitive presence, teaching presence is fundamental. Therefore, teachers need to design the course, its assignments and social interaction carefully.

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