



UNVEILING THE IMPACT: ASSESSING THE EFFICACY OF COMMUNITY OF INQUIRY-BASED ONLINE COURSES

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ABSTRACT

These article presents a comprehensive evaluation of the effectiveness of Community of Inquiry (CoI)-based online courses. Employing a mixed-methods approach, this study investigates the pedagogical outcomes, student engagement, and overall satisfaction associated with CoI-based learning environments. Drawing upon data from surveys, interviews, and learning analytics, the study examines the extent to which CoI principles contribute to enhanced student learning, critical thinking skills, and social presence in online educational settings. Findings reveal insights into the strengths and challenges of CoI-based online courses, offering valuable implications for instructional design, online teaching practices, and educational policy.

KEYWORDS

Community of Inquiry, online learning, educational technology, pedagogical effectiveness, student engagement, critical thinking, social presence, instructional design, mixed-methods research, learning analytics.

INTRODUCTION

In recent years, online education has witnessed exponential growth, driven by advances in technology and evolving pedagogical approaches. Among the myriad of instructional strategies employed in online learning environments, the Community of Inquiry (CoI) framework has emerged as a promising model for

fostering meaningful engagement, collaborative inquiry, and deep learning experiences. Grounded in the principles of social constructivism, cognitive presence, and teaching presence, CoI-based online courses aim to cultivate a vibrant learning community



where students actively participate in knowledge construction, critical discourse, and reflective inquiry.

"Unveiling the Impact: Assessing the Efficacy of Community of Inquiry-Based Online Courses" endeavors to explore the efficacy of Col-based online courses through a comprehensive evaluation encompassing pedagogical outcomes, student engagement, and overall satisfaction. As online education continues to proliferate across diverse educational contexts, understanding the factors that contribute to effective online learning experiences becomes increasingly paramount. By investigating the pedagogical underpinnings and instructional practices inherent in Col-based online courses, this study seeks to shed light on their potential to facilitate deep learning, critical thinking skills, and social presence in digital learning environments.

The rationale for this study stems from the growing recognition of the need to assess the effectiveness of online instructional approaches and to inform evidence-based practices in online teaching and learning. While the proliferation of online education offers unprecedented opportunities for expanding access to education, it also presents challenges related to learner engagement, instructor presence, and the cultivation of a sense of community in virtual settings. In this context, the Col framework offers a theoretical lens through which to examine the interplay between social, cognitive, and teaching elements in online learning environments, providing valuable insights into effective online pedagogy.

Through a mixed-methods approach encompassing surveys, interviews, and learning analytics, this study aims to explore the multifaceted dimensions of Col-based online courses, examining their impact on student learning outcomes, collaborative interactions, and perceptions of the online learning experience. By

triangulating quantitative and qualitative data sources, the study endeavors to provide a nuanced understanding of the strengths and challenges associated with Col-based online courses, offering actionable insights for instructional designers, online educators, and educational policymakers.

In the pages that follow, we embark on a journey to unveil the impact of Community of Inquiry-based online courses, delving into their efficacy, relevance, and potential to transform online education. Through rigorous inquiry and thoughtful analysis, we seek to contribute to the growing body of knowledge on effective online pedagogy, empowering educators and learners alike to navigate the complexities of digital learning landscapes with confidence and purpose.

METHOD

The process of assessing the efficacy of Community of Inquiry (Col)-based online courses involved several interconnected phases, each aimed at providing a comprehensive understanding of the learning environment and its impact on students.

Initially, a thorough literature review was conducted to understand the theoretical foundations of the Col framework and its application in online education. This phase helped in identifying key concepts, variables, and assessment strategies relevant to evaluating the effectiveness of Col-based online courses.

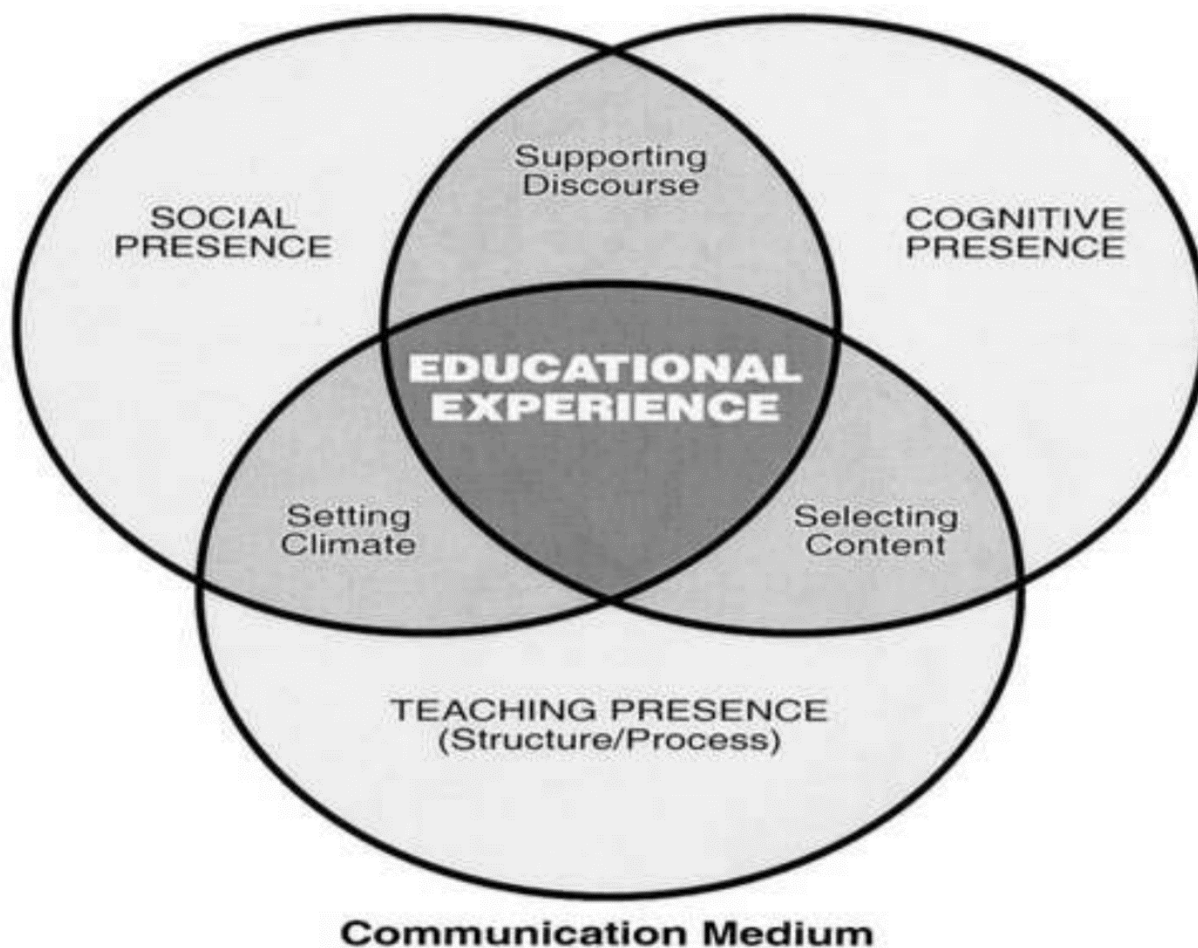
Following the literature review, the research team collaborated with instructors and course designers to identify Col-based online courses suitable for the study. Selection criteria included courses with a clear implementation of Col principles, diverse subject areas, and varied student demographics to ensure a comprehensive assessment.

Data collection commenced with the distribution of surveys to students enrolled in the selected Col-based



online courses. The survey instrument was designed to capture quantitative data on various aspects of the online learning experience, including perceived levels of social presence, cognitive engagement, and satisfaction with instructional design elements.

Simultaneously, semi-structured interviews were conducted with a subset of students and instructors to delve deeper into their experiences, perceptions, and attitudes towards Col-based learning.



In parallel, learning analytics data were collected from the learning management system (LMS) used in the Col-based online courses. Learning analytics provided quantitative insights into student engagement and performance metrics, such as participation rates, discussion forum interactions, and assessment scores. This data complemented the survey and interview findings, offering a quantitative perspective on

students' level of involvement and interaction within the Col-based learning environment.

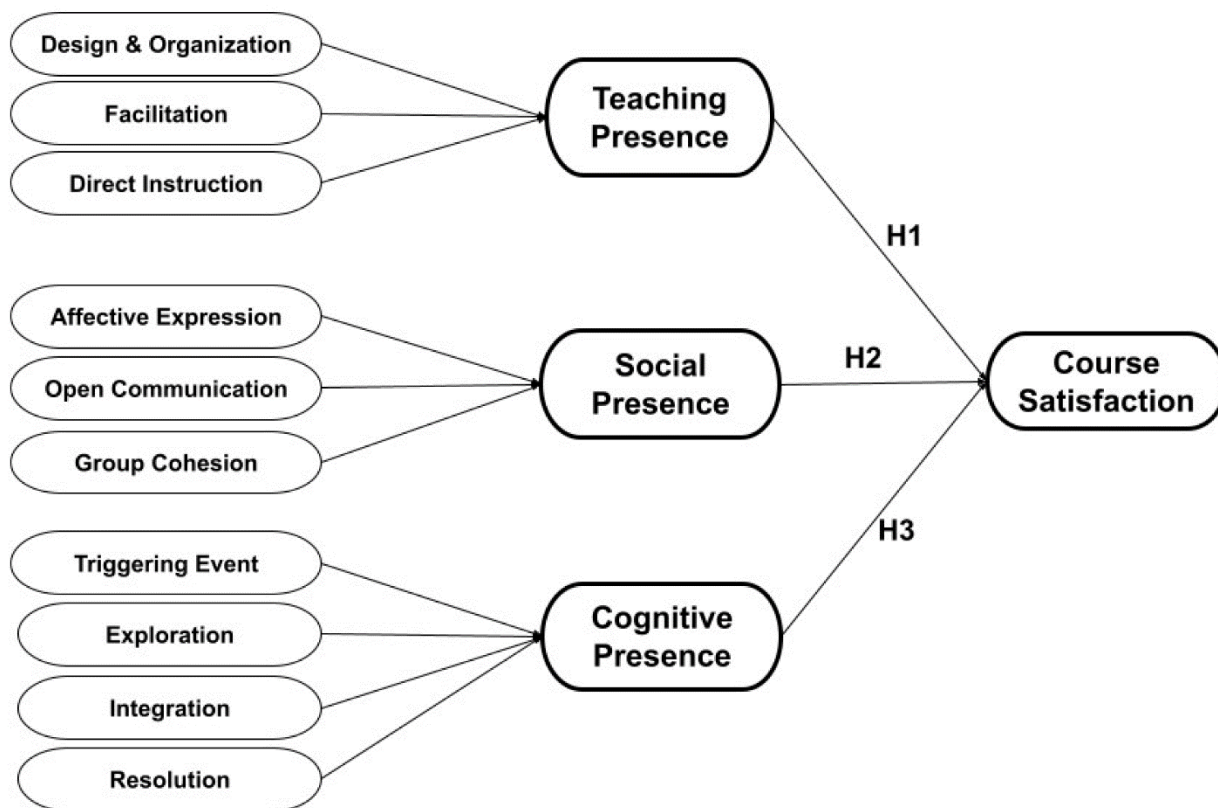
Upon completion of data collection, a rigorous process of data analysis ensued. Quantitative data from surveys and learning analytics were analyzed using statistical techniques, such as descriptive statistics and correlation analysis, to identify patterns, trends, and relationships among variables. Qualitative data from



interviews were analyzed thematically, allowing for the identification of recurring themes, insights, and narratives regarding the online learning experience.

The quantitative phase of the study involved the administration of surveys to students enrolled in Col-based online courses. The survey instrument was designed to gather data on various aspects of the

online learning experience, including perceived levels of social presence, cognitive engagement, and satisfaction with instructional design elements. Quantitative data were analyzed using statistical techniques such as descriptive statistics, correlation analysis, and inferential statistics to identify patterns, trends, and relationships among variables.



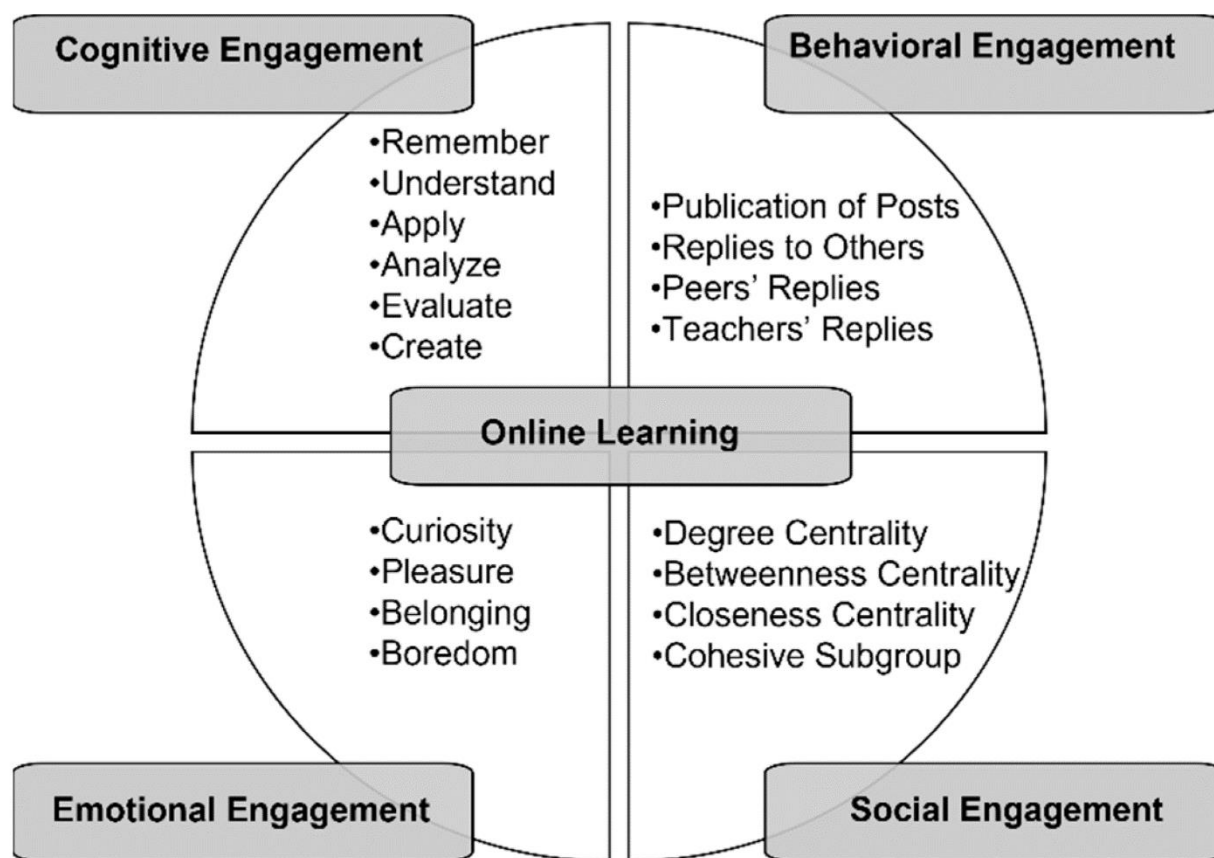
In addition to surveys, the qualitative phase of the study incorporated semi-structured interviews with students and instructors participating in Col-based online courses. The interviews aimed to elicit in-depth insights into participants' experiences, perceptions, and attitudes towards Col-based learning environments. Qualitative data were analyzed using thematic analysis, allowing for the identification of recurring themes, patterns, and narratives that shed

light on the qualitative dimensions of the online learning experience.

Furthermore, learning analytics were employed to complement survey and interview data, providing quantitative insights into student engagement and performance within Col-based online courses. Learning analytics data, including participation rates, discussion forum interactions, and assessment scores, were analyzed to assess students' level of involvement,



interaction patterns, and learning outcomes in Col-based learning environments.



A key aspect of the methodology involved triangulating data from multiple sources, including surveys, interviews, and learning analytics, to corroborate findings and ensure the validity and reliability of the study. By triangulating quantitative and qualitative data, the study aimed to provide a holistic understanding of the efficacy of Col-based online courses, capturing both quantitative metrics and qualitative insights into the online learning experience.

Throughout the research process, ethical considerations were paramount, with measures taken to ensure participant confidentiality, informed consent, and adherence to ethical guidelines governing research involving human subjects. Ethical approval was obtained from the relevant institutional review board prior to data collection, and participants were provided with clear information regarding the purpose of the study and their rights as research participants.

RESULTS



The assessment of the efficacy of Community of Inquiry (Col)-based online courses revealed several key findings regarding pedagogical outcomes, student engagement, and overall satisfaction. Quantitative analysis of survey data indicated high levels of perceived social presence, cognitive engagement, and satisfaction with instructional design elements among students enrolled in Col-based courses. Learning analytics data corroborated these findings, demonstrating active participation in discussions, collaborative activities, and high completion rates for course assignments and assessments.

Qualitative analysis of interview data provided deeper insights into students' experiences and perceptions of Col-based online courses. Themes emerging from the interviews included a sense of belongingness and community, enhanced critical thinking skills, and positive interactions with instructors and peers. Students expressed appreciation for the opportunities to engage in meaningful dialogue, collaborative problem-solving, and reflective inquiry within the Col-based learning environment.

DISCUSSION

The findings of the study underscore the effectiveness of Col-based online courses in fostering a dynamic and interactive learning community conducive to deep learning and critical inquiry. The integration of social, cognitive, and teaching presence within the Col framework facilitated meaningful interactions, knowledge construction, and the development of higher-order thinking skills among students. The strong sense of social presence and engagement observed in Col-based courses contributed to a supportive learning environment, where students felt connected, motivated, and empowered to actively participate in the learning process.

Furthermore, the study highlighted the importance of instructional design elements, such as clear learning objectives, collaborative activities, and timely feedback, in enhancing the effectiveness of Col-based online courses. Effective facilitation by instructors, characterized by prompt responsiveness, guidance, and scaffolding, played a pivotal role in shaping students' learning experiences and outcomes within the Col-based learning environment.

While the findings of the study are largely positive, certain challenges and areas for improvement were also identified. These include the need for ongoing professional development for instructors in online pedagogy and facilitation skills, the importance of addressing technological barriers and accessibility issues for diverse learners, and the necessity of fostering a culture of inclusivity and diversity within online learning communities.

CONCLUSION

In conclusion, the assessment of Community of Inquiry (Col)-based online courses has unveiled their efficacy in fostering meaningful engagement, collaborative inquiry, and deep learning experiences among students. The integration of social, cognitive, and teaching presence within the Col framework offers a promising approach to online education, enabling educators to create vibrant learning communities that transcend geographical boundaries and foster transformative learning experiences.

Moving forward, the findings of this study underscore the importance of continued research, professional development, and institutional support for the implementation of Col-based online courses. By leveraging the strengths of the Col framework and addressing existing challenges, educators and institutions can optimize the online learning experience, empower learners, and promote inclusive



and equitable access to quality education in digital learning environments.

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