

Research Article

Asynchronous Connection: Exploring the Impact of Social Presence, Motivation, and Satisfaction

Aloha S. Balbuena, LPT^a, Mary Grace M. Bautista^b and Florentino G. Pineda, Jr., LPT, Ph.D.^c

^{a&b}Independent Researcher from Philippines

^cBulacan State University, Philippines (<https://orcid.org/0009-0003-3023-8458>)

^aEmail: balbuenaaloha@gmail.com; ^bEmail: marygracebautista1114@gmail.com; ^cEmail: florentinopineda1@gmail.com

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Abstract: This paper explores the perceived social presence, community cohesion, instructor investment, and motivation among Grade 10 students in asynchronous learning using computer-mediated communication (CMC) applications. The study reveals that the majority of students prefer using Facebook Messenger for communication, perceiving a sense of social presence and community cohesion despite the absence of face-to-face interaction. The use of CMC applications positively affects students' comfort level in interacting with their peers, and they appreciate the delayed response time for reflection. Students also perceive a commitment from their instructors to build an active learning community in asynchronous CMC. Moreover, students recognize the collective knowledge and experience among their classmates, which positively influences their motivation for asynchronous learning. These findings emphasize the effectiveness of CMC applications, particularly Facebook Messenger, in facilitating communication and social presence, enhancing the learning experience in asynchronous settings. Based on the findings, recommendations are provided to leverage Facebook Messenger or other accessible CMC applications for effective communication. Educators are encouraged to promote interaction intensity, foster community cohesion, facilitate clear communication, and leverage collective knowledge and experience to enhance the learning environment. These recommendations aim to enhance social presence, engagement, and motivation among students in asynchronous learning contexts.

Keywords: Computer-Mediated Communication (CMC), social presence, motivation, cohesion.

Introduction

Social interaction is a basic human need that influences language learning and communication. Advancements in technology have brought about a paradigm shift from in-person to online communication platforms, highlighting the importance of social interaction in virtual environments. The COVID-19 pandemic has led to the rapid adoption of distance learning, modular instruction, and online classes. Computer-Mediated Communication (CMC) has become a substantial aspect of learning at a distance, with social presence being a crucial component in enhancing the perception of others as “being there” in mediated learning environments.

Social interactions are often described by one's perceptions of the presence of others in online settings. Asynchronous text-based CMC such as pure modular learning, have been criticized for their lack of support for social presence, leaving learners feeling isolated and affecting their sense of belonging and acceptance in a group. The physical separation between teacher and learners can lead to a “transactional distance” creating a sense of threat, anger, gaps in understanding, or misconceptions of the learners about themselves and about the learning process.

Enhancing social presence has been suggested as a means to address students' emotional needs, engagement, interaction, and sense of learning community during online learning amid the COVID-19 pandemic. Social presence is effective in creating an active community, increasing the frequency of interaction between learners, promoting learners' engagement in communicative learning, and positively impacting students in terms of retention and academic performance. Students with high perceptions of social presence had high satisfaction and high perceptions of learning with their instructor.

Student motivation is particularly necessary in an environment where technology may be perceived as a replacement for human presence in instruction. Students are reluctant to participate in online collaborative learning when they lack a feeling of connection. In conclusion, social interaction is vital for successful online learning, and enhancing social presence can bridge the psychological communication gap, create a sense of community, and positively impact student learning outcomes.

Methodology

The study employs a descriptive-correlational design that describes the students' perceived social presence in asynchronous computer-mediated communication (CMC) and their motivation levels in this learning environment. Descriptive research aims to describe, explain, and interpret current conditions, while correlational research determines which variables are related to each other in the population of interest. The study is conducted at Wesleyan University-Philippines, Cushman campus in Cabanatuan City, and the target participants are Grade 10 students in the high school department.

The Slovin formula was used to determine the sample size, and a sample of 100 students was identified via simple random sampling. The CoI questionnaire developed by Garrison *et al.*, (2010) was used to collect students' perceptions of social presence, and the Motivated Strategies for Learning Questionnaire (MSLQ) and Collaborative Learning, Social Presence, and Satisfaction (CLSS) questionnaires were used to measure motivation and satisfaction in asynchronous CMC learning environments. The questionnaire comprises the profile of the participants according to the type of CMC application used, and the second part is a 4-point Likert Scale that describes the students' perception of social presence in terms of affective association, community cohesion, interaction intensity, instructor involvement, and knowledge and experience. The questionnaire has 22 items.

Data collection consisted primarily of administering the research questionnaire to the students, which was sent through a link to a Google Form. The link was sent via Facebook Messenger and assured participants that all gathered data are treated with utmost confidentiality; ethical considerations are observed throughout the research.

WU-P is a prestigious university that offers 45-degree programs, with over 10,000 students on two campuses and is one of the 17 institutions awarded Institutional Accredited Status in 2014 by the Federation of Accrediting Agencies of the Philippines (FAAP). The research aimed to determine if there are any relationships between social presence and CMC used, perceived learning, and perceived motivation.

The questionnaire has been used in measuring social presence in other related research, while the Motivated Strategies for Learning Questionnaire (MSLQ) was originally designed for assessing college students' motivational orientations and their use of different learning strategies for a college course. The questionnaire items used to measure intrinsic and extrinsic motivation levels were taken from the MSLQ, and the overall satisfaction in asynchronous CMC learning environments was taken from the Collaborative Learning, Social Presence, and Satisfaction (CLSS) questionnaire. The descriptive-correlational design was used to describe students' perceived social presence in asynchronous CMC and their motivation levels in this type of learning environment. The research

was conducted at Wesleyan University-Philippines (WU-P), and the sample will consist of Grade 10 students in the high school department of the said University.

Results and Discussion

The majority of Grade 10 students utilized Facebook Messenger to communicate with their peers and teachers. The study revealed that 70% of students used the group chat feature, while 30% opted for direct communication through private messages. Interestingly, email was found to be the least used CMC app, with only 1% of students utilizing this medium.

One of the primary advantages of Facebook Messenger over email is that it is more readily accessible and requires lower internet bandwidth compared to other applications. Moreover, Messenger offers users the ability to not only send text messages but also make voice and video calls, and share files, stickers, edited photos, and GIFs on the platform. As a result, Facebook Messenger has been identified as a practical channel for academic consultations (Lee *et al.*, 2018).

The study examined the perceived social presence of students in an asynchronous learning environment across the dimensions of Affective Association, Community Cohesion, Interaction Intensity, Instructor Involvement, and Knowledge & Experience. The findings indicate that despite the absence of face-to-face interaction, students still perceive a sense of social presence when communicating with their peers and instructors ($WM=2.94$). This contradicts previous research, such as Haythorwaite's (2002), which suggested that the nature of computer-supported programs may hinder the development of a sense of community and belonging among students, instructors, and the course. In fact, the earliest conception of social presence by Short *et al.*, (1976), emphasized that the features of computer-mediated communication (CMC) were insufficient in conveying social presence or the feeling of "being there." This study suggests that even in an asynchronous setting, students can still experience social presence, which is crucial for creating a positive and engaging learning environment.

Affective Association, which pertains to emotions, humor, and self-disclosures within the program, received an overall weighted mean of 2.89. Notably, the item "Getting to know other course participants gave me a sense of belonging in the course" received the highest level of agreement from the respondents, suggesting that despite communicating in a digital space, they were able to form emotional connections with their classmates. This finding contrasts with previous studies (Rovai, 2002) that reported the potential for a "transactional distance" and a psycho-social gap to emerge between learners and teachers in asynchronous learning, resulting in negative feelings such as anger, confusion. The dimension of Interaction Intensity in asynchronous learning yielded a weighted mean of 2.81, suggesting a significant level of interaction among students. While the overall agreement of the students towards the statements is high, item 2, which gauges their comfort level in participating in class discussions, ranked highest; while item 1, which measures their comfort level in conversing, ranked lowest.

Despite the potential reduction in class interactions brought about by asynchronous learning, the use of CMC applications has positively affected the students' comfort level in interacting with their classmates. This is consistent with a study by Gunawardena (1997), where learners felt more at ease with online communication, as it eliminates the discomfort sometimes experienced in traditional classroom discussions and debates. Moreover, students appreciated the delay in response time, which allowed for reflection before writing their responses (Hill *et al.*, 2009). As technology and communication channels have progressed, learners now have access to more connected interactivity between themselves, their peers, the course content, and their instructors' conceptions of the learning process.

The weighted mean for the overall perceived community cohesion among the students is 2.81, indicating that they feel a sense of community in their online communications. It is worth noting that

the students are in their 10th grade at the same school, which means that they have formed strong bonds with one another even before the school closure and the shift to asynchronous learning. This prior connection may have contributed to the presence of community cohesion in their online interactions. The duration of their acquaintance and collaboration has made them comfortable in expressing different points of view, disagreeing with opinions, and engaging in collaborative discussions. According to Fonseca *et al.*, (2018), community cohesion is influenced by the level of friendship and networks among individuals or groups.

The overall weighted mean of 3.14 for Instructor Investment suggests that students believe their teacher is committed to building an active learning community in asynchronous CMC. Specifically, learners strongly agreed with item 2 (The instructor provided clear instructions and important due dates for learning activities.), followed by item 1 (The instructor clearly communicated course topics and objectives).

This high level of agreement among students on the instructor's investment in asynchronous learning contradicts some existing research (Wang *et al.*, 2020), which highlights issues such as lack of communication, knowledge, skills, and feedback from instructors as common challenges in asynchronous learning. However, the use of instant messaging and timely feedback through the students' preferred CMC app may have facilitated more efficient and effective communication between the instructor and students, helping to address these challenges.

The weighted mean for the dimension of social presence is 2.89, indicating that students perceive a substantial level of collective knowledge and experience among their classmates. They strongly agreed with item 3, "Combining new information helped me answer questions raised in course activities." This finding supports the study of Rourke and Kanuka (2009), which found that a group's collective prior experiences and knowledge significantly impact social presence and student learning. The level of agreement among students on statements related to perceived motivation in asynchronous learning. The statements covered both intrinsic and extrinsic motivation, and the students generally agreed with all the statements (WM=3.00), indicating their motivation to learn in an asynchronous setting. Item 4 (I want to do well in my classes because it's important to show my ability to my family, friends, or others) had the highest agreement, indicating extrinsic motivation. This finding is consistent with Vallerand *et al.*, (1992) study, where extrinsic motivation is a key factor in influencing student motivation.

However, the results are contradictory to the researcher's immediate environment, as well as the study conducted by Kim and Frick (2011), which found that limited social interaction in online environments had a negative impact on students' motivation. The researchers believe that Instructor Investment plays a significant role in increasing student motivation, as evidenced by the findings from the same study mentioned above. Increased instructor and student interaction, as well as motivating instructor feedback, can help boost students' motivation.

The perceived level of student satisfaction in asynchronous CMC, findings indicates that students are content with the class activities and assignments, the instructor, and the entire class in general (WM=3.16). It is worth noting that the students strongly agreed with the statement, "The instructor for this course met my learning expectations." This aligns with the study conducted by Tomei and Goldschmidt (2012), which found that instructor satisfaction significantly contributed to students' overall satisfaction in asynchronous learning. Furthermore, this learning modality provides students with convenience in terms of addressing distance barriers, saving time and resources, and having sufficient time to complete their requirements.

The p-value of 0.518 suggests that there is no significant difference in the perceived social presence of students, whether they use the group chat feature or private messaging on Facebook Messenger.

This indicates that students feel equally comfortable and have the same sense of belonging with their peers and instructors on both forms of computer-mediated communication.

There is a significant relationship between students' perceived social presence and their motivation and satisfaction with asynchronous learning. These findings are consistent with previous research by Richardson and Swan (2003), who found that students with higher perceptions of social presence also reported higher satisfaction, motivation, and perceived learning with their instructor. Another study conducted by So and Brush (2007) also emphasized the importance of student satisfaction in evaluating the effectiveness of distance learning. Although their study suggested that student perceptions of social presence and satisfaction may be related, their research findings surprisingly revealed that the relationship between social presence and overall satisfaction was positive but not statistically significant.

Conclusion

The study investigated the use of computer-mediated communication (CMC) applications among Grade 10 students in asynchronous learning, fixating on perceived social presence, community cohesion, instructor investment, and motivation. The study found that the majority of the students utilized Facebook Messenger to communicate with their peers and teachers. Despite the absence of face-to-face interaction, students still perceived a sense of social presence and community cohesion when communicating with their peers and instructors. The use of CMC applications has positively affected the students' comfort level in interacting with their classmates. Moreover, students appreciated the delay in response time, which allowed for reflection before writing their responses. Students believed their teacher was committed to building an active learning community in asynchronous CMC. Finally, students perceived a substantial level of collective knowledge and experience among their classmates, which positively impacted their motivation for asynchronous learning. Overall, the study suggests that CMC apps, particularly Facebook Messenger, can facilitate effective communication and social presence, positively impacting the learning experience of students in asynchronous settings.

Recommendations

Encourage the use of Facebook Messenger or other readily accessible CMC applications, since Facebook Messenger was found to be the most popular CMC application among Grade 10 students, educators can leverage this application to communicate with their students. Messenger offers more features compared to other applications, making it practical for academic consultations. Moreover, it requires lower internet bandwidth, which is essential for students who have limited access to high-speed internet.

Promote Interaction Intensity in Asynchronous Learning: Despite the potential reduction in class interactions brought about by asynchronous learning, educators should aim to create more opportunities for interaction among students. This can be achieved by encouraging them to participate in class discussions and debates using CMC applications. Educators should leverage the delay in response time that comes with asynchronous learning to allow students to reflect before writing their responses.

Foster Community Cohesion: Community cohesion is essential for creating a positive and engaging learning environment. Educators can promote community cohesion by encouraging group activities, collaborative projects, and peer review using CMC applications. Moreover, Educators can leverage the students' prior connections to foster a sense of community in their online interactions.

Facilitate Effective Communication: Facilitators should provide vivid directions and significant due dates for learning pedagogy. Additionally, they should clearly communicate course topics and objectives. This can be achieved by using instant messaging and timely feedback through the

students' preferred CMC app to facilitate more efficient and effective communication between the instructor and students.

Leverage Collective Knowledge and Experience: Students' collective prior experiences and knowledge significantly impact social presence and student learning. Educators should leverage this by encouraging group discussions that allow students to combine new information to answer questions raised in course activities. This helps to create a sense of social presence, which is crucial for creating a positive and engaging learning environment.

Declarations

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