

# Electronically Mediated Learning Communities in the Wake of a Pandemic

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## Introduction & Overview

As members of the LearnInnov research team in Hungary, we conducted a four-phase survey with students and instructors in a college preparatory program at the International Studies Center, University of Pécs Medical School (ISC-UPMS), observing them as a *learning community* during the COVID-19 transition when the teaching-learning process was suddenly forced to transition to online platforms.

Prior international research results have documented that online learning methods can be quality alternatives to higher education classrooms, evidenced by analyses of students' academic performance (Magagula & Ngwenya, 2004; McPhee & Söderström, 2012) and satisfaction indicators (Palmer, 2012).

The first two phases examined student satisfaction and attitudes towards elective interdisciplinary courses, community building events and service learning opportunities. Results from the first phases confirmed that preparatory programs at ISC successfully combine classroom and digital education tools; formal and community learning solutions; and build a bridge between cultures, disciplines engaging linguistically diverse learners (Toszegi-Radnai, forthcoming publication, 2021). In the third and fourth phases of the study we used the revised Community of Inquiry (CoI) model (Shea & Bidjerano, 2010) to identify key constructs in the education process to examine how online space changes the relationship between students and teachers and their relationship to learning.

## Research questions, hypothesis, data set

In order to find similarities, differences, shifts and trends in comparison to previous phases of our study at ISC's college preparatory language programs, we conducted the 4<sup>th</sup> phase of our survey with students in the autumn semester 2020/2021, honing in on key questions from the spring 2019/2020 survey. English Preparatory students received Microsoft Forms software and a printed version of the form was requested by the Hungarian Preparatory Program participants. This survey in the 4<sup>th</sup> phase had a narrower scope with only eight items focusing students' attention on qualitative aspects requiring brief explanations. Students evaluated the different aspects of *presence* on a five-point Likert scale.

Two research questions were posed:

**Q1:** What correlations occur between different aspects of presence, student effectiveness and satisfaction?

**Q2:** What values were emphasized and what differences were articulated with regards to the exclusively online English program and the Hungarian program utilizing a flipped classroom methodology?

**H1:** Our hypothesis for the first question was that the *cognitive aspect* of presence would be perceived as strengthened and more intense with online, electronically mediated learning.

**H2:** Our second hypothesis was that the flipped classroom practice would give more satisfaction to students because it blends the advantages of both classroom presence, and therefore it would be more suitable for the context of preparatory courses.

The number of international students unfortunately radically decreased due to the prolonged pandemic. There were 24 out of 60 motivated participants from the English preparatory program, and only 4 out of 4 selected students were present to fill out the paper-based questionnaire from the Hungarian Program.

Questions focused on students' overall satisfaction and challenges they faced during the online courses are summarized in the table above.

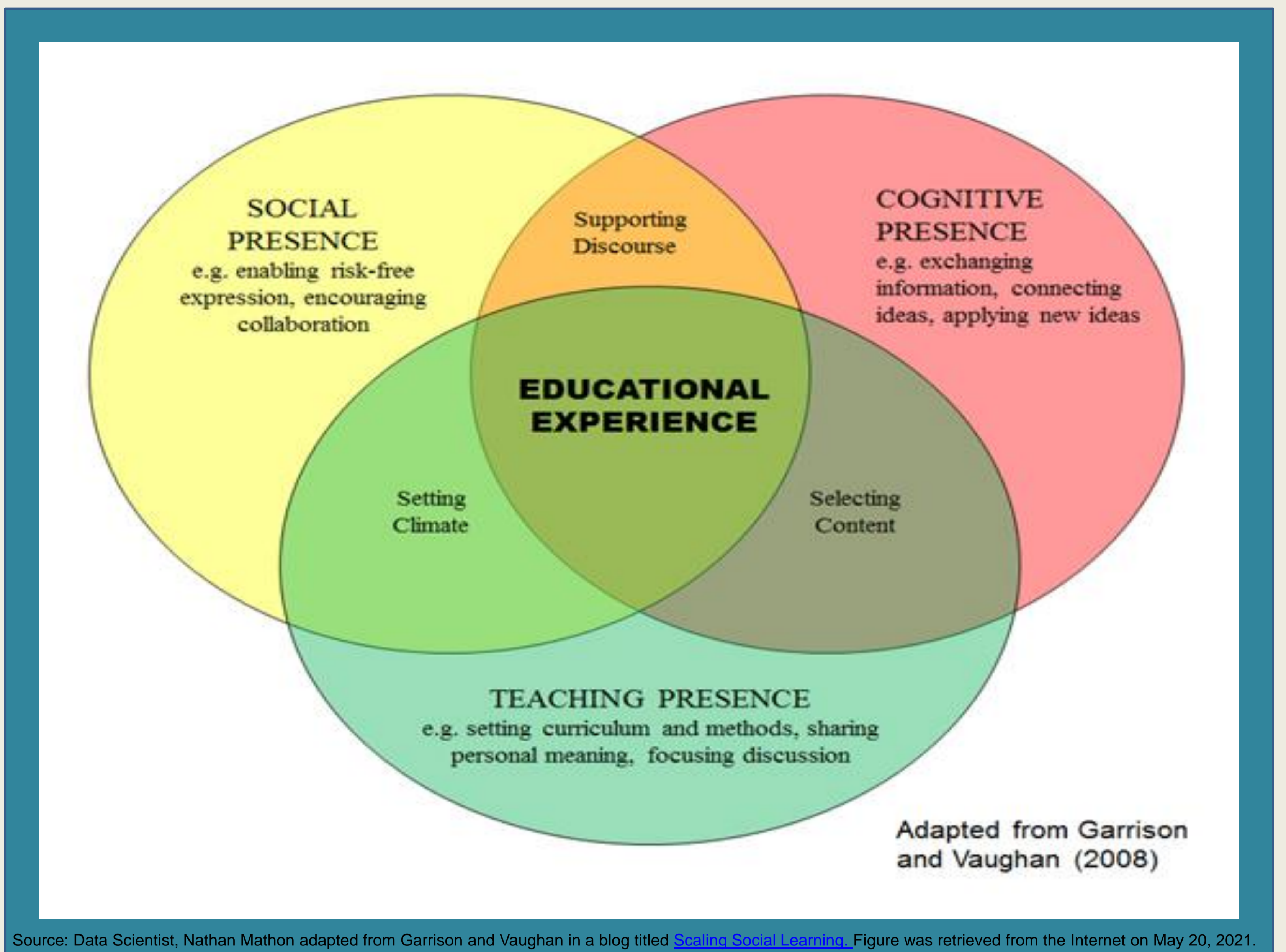
Survey Items	Spring 2020	Fall 2020
List three aspects of ISC's online courses you were satisfied with:	1. The comfort of the home 2. Saving time 3. Useful study materials, Ppts.	1. Development in my language skills 2. Friendly atmosphere in the study community 3. Supportive educators
List two to three typical challenges with online courses:	1. Communicative and technical difficulties arising due to online contact. 2. Less opportunity for practice. 3. Diverting and shifting attention, lower efficiency in learning.	1. Difficulties with communication due to the online learning environment. 2. Lack of target language skills for some students.
What values are missing in online education that are typically available in traditional face-to-face classrooms?	1. The comprehensive personal presence. 2. The atmosphere.	1. Increased personal presence. 2. Learning efficiency and a more concentrated classroom presence.

**Table 1.** Feedback from surveys completed by international students at ISC-UPMS in the 2020 spring and fall semester.

## Answers, shifts and trends

Findings based on comparative analyses of answers given by the English Preparatory *online* course participants (in Spring and Fall of 2020) yielded data suggesting that instead of the flexibility deriving from the virtual aspect of online courses, the advantages of *individual asynchronous planning and organization* and the *efficiency of cognitive performance* was the most valued elements.

Data from the comparative results based on levels of agreement on a five-point Likert scale correlated questions with social-, cognitive-, learner- and teaching presence and qualitative analyses suggested that students still experience a sense of belonging to a community in their online preparatory course.



Source: Data Scientist, Nathan Mathon adapted from Garrison and Vaughan in a blog titled [Scaling Social Learning](#). Figure was retrieved from the Internet on May 20, 2021.

On the other hand, regarding the aspect of cognitive presence (in contrast to survey outcomes of Spring '19) students no longer found that completing tasks in the online courses were more difficult. Finally, data suggest that the longer time students spent away from the physical classroom, the more explicitly they expressed the value of teachers' presence.

Questions about the 3 aspects of presence	Spring 2020	Fall 2020
<b>Social presence:</b> Having a sense of belonging to a community in my online classes.	Mostly agree	Agree
<b>Cognitive presence:</b> It is more difficult to accomplish tasks online.	Strongly agree	Do not agree
<b>Teaching presence:</b> Receiving sufficient attention from my teacher.	Strongly agree	Agree

**Table 2.** Shifts experienced in the answers of ISC-UPMS international students on a five-point Likert scale.

The second question of our investigation focused on the three basic aspects of presence the Community of Inquiry model. Limitations in our research were caused by the following issues: a. our data sets are not representative due to the limited number of participants b. we cannot draw valid comparison between the two programs because they differed in language and content c. the participants included new students in each semester.

However, in such circumstances we took advantage of a pilot survey to validate how accurately each presence was measured by the questions. The coded responses show that students who participated in the flipped classroom showed a stronger social presence in contrast to those who only participated in the online course. From the group of questions focusing on cognitive presence, we highlighted the item targeting challenges in task completion on an online platform, in order to demonstrate the importance of the qualities of in-person education with the item measuring teaching presence.

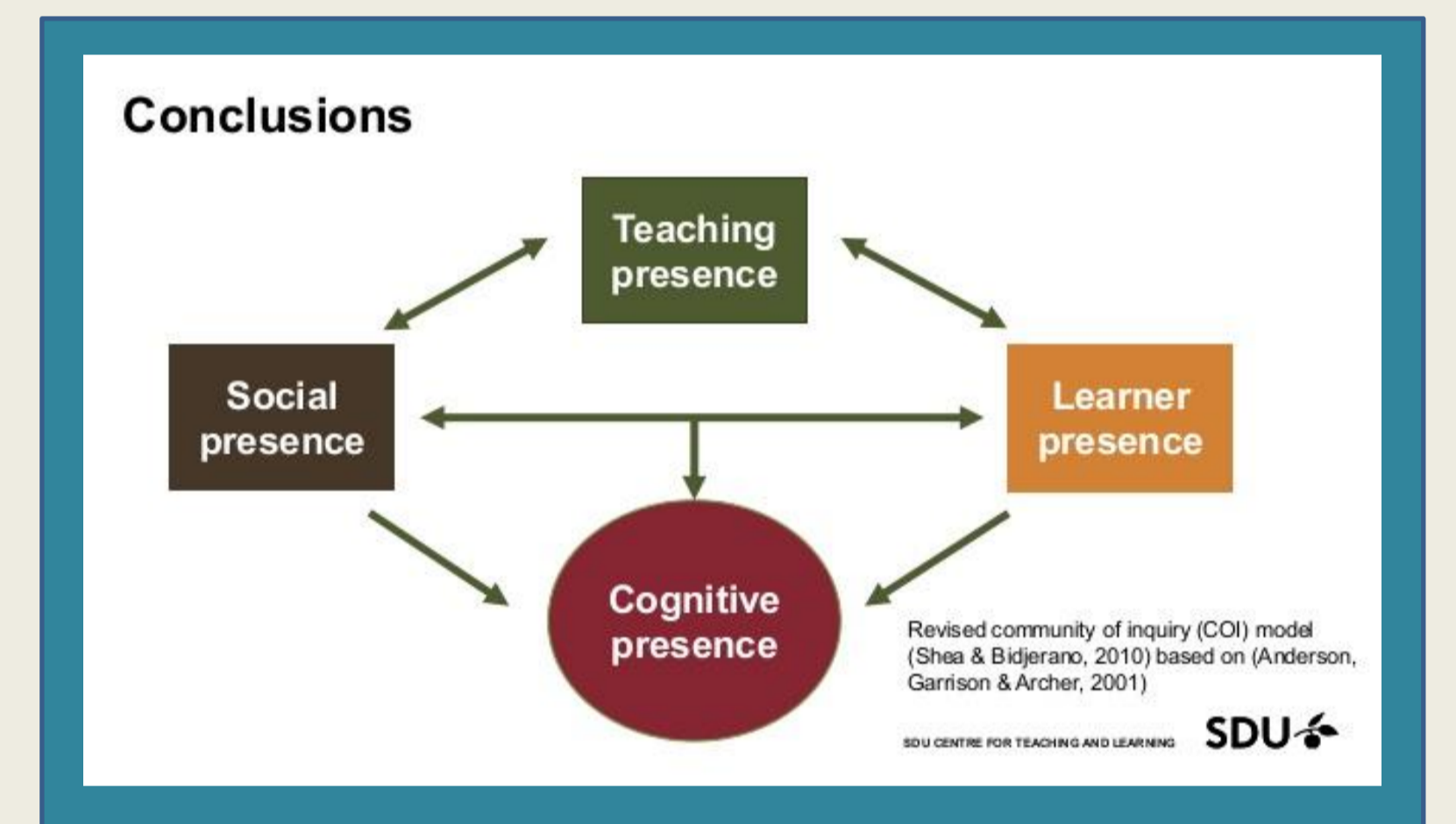
Table 3. provides an overview of the major aspects of presence comparing the two programs.

Answers grouped according to respective aspects of presence	Hungarian Preparatory, Fall 2020	English Preparatory Program, Fall 2020
- Social presence: Having a sense of belonging to a community in online classes.	Mostly agree	Agree
- Cognitive presence: It is more difficult to accomplish tasks online.	Mostly agree	Do not agree
- Teaching presence: Receiving sufficient attention from my teacher.	Strongly agree	Agree

**Table 3.** Contrasting the responses of international students participating in the Hungarian Preparatory Program (using flipped-classroom) and the English Preparatory Program (online only platforms).

The qualitative and quantitative non-representative results are based on values of cognitive and social aspects of presence from the spring and fall semester surveys of 2020. The data clearly suggests that both students and educators could mutually adjust to online education. While qualitative responses from students in the Hungarian Preparatory Program illustrate that the factor of social presence is extremely important and it has a strong correlation with the cognitive aspects of learning, confirming the notion by Garrison (retrieved from the Internet on 20.05.2021. <http://www.thecommunityofinquiry.org/editorial26>).

In further research studies, questions may be raised to explore the correlations between social, cognitive, learning and teaching presence in electronically mediated communication in a hybrid language teaching arrangement (in-class merged with online platforms) based on the revised Community of Inquiry framework, in which "learning presence indicates the exercise of agency and control rather than compliance and passivity and more fully articulates popular beliefs about the importance of self-direction in online environments" (Shea Bidjerano, 2012: 90).



In addition to learning presence that we examined in the 3<sup>rd</sup> stages of our research, we have discovered other prospective presence types suggested by scholars that characterize a shift towards self-driven, explorative and distributive teaching attitudes (Lam, 2015; Engel et.al., 2013; Kozan & Caskurlu 2018). Further interrelations should be surveyed between the diverse *types of presence* and a new linguistic realization enhanced by digital platforms. "Electronically mediated communication, as an inherent part of life in today's world, contributes to the construction of new, mediated forms of communities based on the interaction or operational synthesis of virtual and physical communities" (Szécsi, 2013: 641). In view of the above, a survey matrix shall be developed to measure the aspects of presence-, the mental map of the course content, and attitudes towards the learning process in post-pandemic times to allow digital learning platforms to be merged with face-to-face instructions in a hybrid learning model.

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