

INVESTIGATING STUDENTS' ONLINE LEARNING EXPERIENCE USING REVISED COMMUNITY OF INQUIRY FRAMEWORK IN AN EFL WRITING COURSE

Mega Wulandari

Universitas Sanata Dharma

correspondence: mega@usd.ac.id

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Abstract

Quality online programs often demonstrate significant teaching presence, social presence, cognitive presence, learner presence with the help of technology use. This study investigates online learning experience based on the Revised Community of Inquiry (RCoI) framework in a writing course. The goal of this study is to explore how asynchronous and synchronous activities in an LMS can be utilized to create higher levels of cognitive presence in the online environment. Learning experience of one writing course consisting 28 students were assessed through questionnaire & FGD. Hopefully, the result of this study will contribute to the more accessible, convenient, and effective online learning in the future.

Keywords: COI, online learning, EFL, Writing

Introduction

Technology has become a part of teaching and learning process in the classrooms around the world. Teachers are nurturing 21st century learners who grow up with computers, gadgets, and internet access (Wulandari & Pasaribu, 2020). Technology has been an integrated part of their lives, including their academic pursuits. Students also expected schools to integrate modern teaching media in the learning process for more engagement (Pasaribu, & Wulandari, 2021). Not only do the technological tools offer access to wide-range information for students, but they can also help teachers in planning and teaching the lessons (Wilson, 1990). When information is not scarce for students, teachers are challenged to create innovations and bring students to embark on new learning experiences (Gavenila, Wulandari, & Renandya, W. A., 2021).

The learning model used by teachers greatly influences the learning process and learning outcomes of learners (Theresia & Recard, 2021). Learners, especially college students, will feel bored more easily with monotonous learning models done repeatedly especially during COVID-19 pandemic where all courses are conducted online (Mulia & Emaliana, 2021). Students are expected to be self-regulated during this online learning. Further Bria & Mbato (2019) explained that self-regulated learning is an active constructive metacognitive behavior and learning motivation in setting goals and trying to monitor and control cognition in the learners. If the students feel bored during learning activities in class, their interest and desire to continue to explore certain material will certainly decrease.

Online courses have made learning accessible, convenient, and flexible. Innovative teaching strategies are imperative to keep students engaged in a world being transformed by increased use of technology (Hasan & Khan, 2020; Huang, Liu, Tlili, Yang, & Wang, 2020). Thus, there needs to be a transformation in the teaching and learning model that will fit current Gen Z students' and equip them with 21st century skills. These skills are also facilitated by Ignatian Pedagogy model that not only enhances the students' competence, but also conscience and compassion. In attempt to evaluate students' learning experience and to acquire 21st century skills, the researcher is planning to use revised community of inquiry framework to see teaching presence, cognitive presence, learner presence, social presence and technology use (Garrison, Anderson, & Archer, 1999; Shea & Bidjerano, 2010; Shea et al., 2012; Swan et al., 2012). This framework argues that knowledge building results from collaborative interactions between active students & a conducive learning environment (Shea & Bidjerano, 2010). The RCOI framework theorizes four elements that contribute to a successful learning environment (Garrison, Anderson, & Archer, 1999), namely Cognitive Presence, Social Presence, Teaching Presence, and Learner Presence enhanced by technology use. The researcher chooses a writing course as the subject of this research due to the fact that writing is a skill that is considered to be the hardest in foreign language acquisition (Saville-Troike & Barto, 2017). Writing skill can be achieved when social presence and cognitive presence exist, and can be enhanced by the presence of teacher, learner, and technology use (Alaulamie, 2014).

Digitalization, which is marked by technological advances in various aspects, demands higher education to respond positively to the adoption of technology in learning activities that can improve student-centered learning (Kim et al, 2014). This digital media is considered a versatile medium for education because it can be used "anytime and anywhere" (Garrison, Anderson, and Acher, 1999). This is a challenge for universities, teachers, and students. Many techniques are then developed in the world of education which aim to increase students' interest in learning. Meanwhile, the potential for developing new media still needs to pay attention to aspects of the quality learning process and its results (Garrison, Anderson, and Acher, 1999).

A learning process should pay attention to the prerequisite elements that are essential for achieving a successful learning experience in higher education (Garrison, Anderson, and Acher, 1999). Building on this important element in creating a meaningful learning experience requires paying attention to various aspects including pedagogy and bloom taxonomy. The components in each element need to be identified to each individual student so that learning outcomes are truly achieved. Special attention to important components of the learning experience at the higher education level can be sustained when applied in a learning environment (Garrison, Anderson, and Acher, 1999).

The Community of Inquiry (CoI) framework is a well-established model utilized to gauge learning effectiveness in the online environment (Garrison and Arbaugh, 2007). With the proliferation of online education in the post-secondary setting, both synchronous and asynchronous videos have been utilized to promote learning. The CoI model (Figure 1) assumes that learning happens within a community of learners through the interaction of three core elements: cognitive presence, social presence, and teaching presence.



Figure 1. Community of Inquiry (CoI) Framework

Social presence in online learning is described as the ability of learners to emotionally and socially project themselves, and thereby be perceived as “real people” in mediated communication. Research based on online graduate management programs indicate that group cohesion and team interaction based on open communication is suggestive of a strong relationship between social presence and learning outcomes (Richardson, Maeda, & Caskurlu, 2017). Research shows that activities that increase social presence also increase satisfaction with students’ online learning experience.

Cognitive presence is defined as the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse (Garrison, Anderson, and Acher, 1999). The cognitive presence unfolds in four distinct phases: (a) a triggering event that necessitates further inquiry of a problem (b) the exploration of the problem through critical thinking and dialogue (c) integration of the ideas explored whereby new meaning is constructed (d) resolution of the problem whereby learners are able to apply the new knowledge. According to Garrison and Arbaugh (2007), teaching presence comprises of three components: (a) instructional design and organization (b) facilitating discourse (c) direct instruction. It is through effective teaching presence that meaningful and desired learning outcomes are attained (Garrison, & Cleveland-Innes, 2005).

This study uses Revised Community of Inquiry (RCOI) (Garrison, Anderson, & Archer, 1999; Shea & Bidjerano, 2010; Shea et al., 2012; Swan et al., 2012) as a theoretical framework by generating a model that can guide elaboration of the design principles of the online learning model. This framework argues that knowledge building results from collaborative interactions between active students in a learning environment (Shea & Bidjerano, 2010). The RCOI framework theorizes four elements that contribute to a successful learning environment (Garrison, Anderson, & Archer, 1999), namely Cognitive Presence, Social Presence, Teaching Presence, and Learner Presence enhanced by technology use. Cognitive Presence is knowledge that involves the ability to think critically and creatively. Social Presence is to encourage peer relationships. Teaching Presence is an instructional role in the learning environment. Learner Presence is self-regulation and learning. The use of technology should also be

adjusted to the extent to which students find it easy and comfortable when using technology.

Method

A quantitative approach with descriptive statistics is considered suitable for obtaining research results (Pham, 2018). Descriptive analysis was employed in analyzing the phenomena that occur in this case. This study was measured through an assessment of student learning outcomes seen from the aspects of the RCOI thinking framework, namely Cognitive Presence, Social Presence, Teaching Presence, and Learner Presence enhanced by technology use.

Sampling was carried out by purposive sampling method (Campbell, Greenwood, Prior, Shearer, Walkem, Young, & Walker, 2020) in which all students from one class of the Critical Reading and Writing Course in the English Education Study Program even Semester 2020/2021 enrolled in this research. The number of respondents was 28 students. Data analysis was performed using descriptive statistics. Further, to enrich the exploration, focus group discussion was also conducted online through zoom meeting with 6 respondents.

The data from the questionnaire were analyzed and interpreted descriptively. Meanwhile, the qualitative data generated from FGD were analyzed with focus on the themes connected to their experiences (O. Nyumba, Wilson, Derrick, & Mukherjee, 2018) in a writing course with online learning setting

Findings and Discussion

This effectiveness is measured through an assessment of student learning outcomes seen from the aspects of the RCOI thinking framework, namely Cognitive Presence, Social Presence, Teaching Presence, and Learner Presence enhanced by technology use. The result of the questionnaire can be seen in the table below.

Table 1. The result of the RCOI Survey

RCOI	Code	Statements	Mean	SD
Teaching Presence (Mean = 4.38, StdDev= .64)	TP1	1. The lecturer clearly communicates the learning objectives.	4.31	0.61
	TP2	2. The lecturer provides clear instructions on how to participate in learning activities.	4.46	0.65
	TP3	3. Lecturers clearly communicate due dates / time frames that are important for learning activities.	4.31	0.63
	TP4	4. The lecturer helps me stay involved and participate in productive dialogue.	4.08	0.83
	TP5	5. The lecturer encourages me to explore new concepts in activities.	4.54	0.65
	TP6	6. The lecturer's actions strengthen the development of a sense of community among course participants.	4.38	0.65

RCOI	Code	Statements	Mean	SD
Social Presence (Mean = 4.07, StdDev= .74)	TP7	7. My teacher provides helpful illustrations that help me make the lesson content easier to understand for me.	4.31	0.63
	TP8	8. My teacher provides clarification or other feedback that allows me to carry out activities.	4.62	0.50
	SP1	1. I know other students	4.38	0.65
	SP2	2. Other students provide a sense of belonging in the class.	3.46	0.65
	SP3	3. I feel comfortable talking through online media.	4.00	0.88
	SP4	4. I feel comfortable participating in discussions.	4.08	0.86
	SP5	5. I feel comfortable interacting with other students in the class.	4.46	0.65
	SP6	6. I feel comfortable disagreeing with and defending my opinion in class because of trust.	4.23	0.77
Cognitive Presence (Mean = 4.33, StdDev = .61)	SP7	7. I feel my opinion is recognized by other students.	3.92	0.77
	SP8	8. Discussions (online) help me develop a sense of collaboration.	4.00	0.73
	CP1	1. Sample cases discussed increase my interest in class activity.	4.46	0.65
	CP2	2. I feel motivated to explore the material discussed in class.	4.31	0.74
	CP3	3. I use various sources of information to explore class material.	4.31	0.63
	CP4	4. I brainstorm and find relevant information to help me solve questions related to the material.	4.31	0.50
	CP5	5. Incorporating new information helps me answer questions posed in class activities.	4.23	0.61
	CP6	6. This learning activity helps me develop explanations / solutions for a particular case.	4.38	0.65
	CP7	7. Reflection on the content of classroom learning and discussion helps me understand the basic concepts in this class.	4.15	0.58

RCOI	Code	Statements	Mean	SD
	CP8	8. I can apply the knowledge in this class to my work or other non-class related activities.	4.15	0.58
Technology use (Mean = 4.60, StdDev = .69)	TU1	1. It is easy for me to access the material in the LMS	4.46	0.51
	TU2	2. Technology used for activities interferes with my ability to learn.	4.85	0.36
	TU3	3. The technology used for activities allows me to collaborate with other students	4.38	0.76

The results of the descriptive analysis above show that the overall indicator has a good average value because it has a value above 3.4 so it includes in the category of good assessment. That means students have a perception that online learning is useful for improving their learning process because of the aspects of Teaching Presence, Social Presence, Cognitive Presence, Learner Presence, and Technology Use.

The average of Teaching Presence (TP) indicator is 4.38 with a standard deviation value of 0.64, meaning that students who undergo lectures for one semester strongly agree that the instructional role in their learning environment feels its presence through this online learning lecture method. Hopefully, it will increase their understanding of the material so that it is useful for improving students' accomplishment (competence). Students can experience teacher's presence from the activities like virtual gallery walk, draft consultation, and chats. This is also supported by the result of the FGD, as follows:

- (1) lecturers have also begun to improve to perform teaching that is as interesting as possible compared to the previous semester. For example, the virtual gallery walk activity. It was very exciting and really educational for all of us because we can communicate and ask questions freely. (TP/Resp02)
- (2) In terms of feedback, I feel the lecturer has provided enough feedback to help us understand what is lacking in our writing. (TP/Resp01)

From those interview result, it can be concluded that even in the online setting, students can still have teacher presence through the interaction occurred in the writing and discussion activities (Rapanta, Botturi, Goodyear, Guàrdia, & Koole, 2020).

The average of Social Presence (SP) indicator is 4.07 with a standard deviation value of 0.74, meaning that students who attend lectures for one semester strongly agree that all kinds of stimuli during one semester in the online learning encourage peer relationships and collaboration. This can boost their ability to socialize and adapt to their future and even the awareness of empathy for others (compassion). This is also supported from the result of the FGD, as follows:

- (3) Personally, online learning makes me learn to appreciate differences of opinion more than regular class. Using online platform, we can contact our teammates 24/7. But, I also appreciate their time. (SP/Resp03)
- (4) However, sometimes there are other friends who are so bad in terms of time management. So, they skipped the scheduled discussion even though we have

made an agreement. If that happens, it will return to the personal goals of each person whether the person wants to improve their skills or not. (SP/Resp02)

From those statements, it can be said that collaboration does happen in class, however they are struggling to match their time with other member of the groups. However, they can still catch up with the discussion through asynchronous communication like text messaging and adding ideas to their collaborative works. They also learn to appreciate time better since everyone cannot be online for 24/7.

The average of Cognitive Presence (CP) indicator is 4.33 with a standard deviation value of 0.61, meaning that students who take lectures for one semester strongly agree that online learning encourages the improvement of their knowledge and even critical and creative thinking skills. They are required to be independent in learning. When this has become a habit in daily life, then they will become autonomous (conscience). This is also supported by the result of the FGD, as follows:

- (5) In terms of cognitive presence, I feel that in online learning I can better understand the materials and can explore projects deeper. If it's offline, I meet a lot of friends, I tend to play more. So, I feel like online learning setting makes me more productive. (CP/Resp05)
- (6) From me, the learning becomes more varied. If teaching offline, the lecturer has prepared the material. But if it's online, we can find material on youtube or google about similar topics but the explanation is easier to understand. (CP/Resp01)
- (7) In my opinion, from this class I learn a lot about processing information. So, when I receive some information, I combine with information from other possible media first. Only after knowing the truth, then share it to the nearest person. (CP/Resp04)

Online learning gives them freedom to find the source of information which are reliable but easy to understand (Hilliard, & Stewart, 2019). This writing class also teaches them how to gain digital wisdom by not directly sharing new information they get, but they need to filter it out before sharing it to others. In terms of the material, they also need to quote the source of information they acquire in order to convince others that their argument is strong and reliable.

The average of the Technology Use (TU) indicator is 4.60 with a standard deviation value of 0.69 which means that students feel comfortable and easy in the use of technology during lectures for one semester agree that this online learning. It is also supported by the result of the FGD, as follows:

- (1) In my opinion, the use of zoom is not only effective, but it is more advanced because we can hold conferences (such as in mini research project). Then in the use of LMS, I feel I gain more skills in exploring LMS again because before the pandemic, LMS is still rarely used. I think this is the perks of the pandemic. I become familiar with Zoom, Google Meet, Padlet, Quizizz and many other digital learning platforms for my learning process. (TU/Resp04)
- (2) Using technology, I can also join seminar and conferences held by other universities inside and outside the country without even leaving home. Before that, I was reluctant to join any of those events. (TU/Resp05)

From those statements, it can be concluded that they got some insights from the use of technology during online learning era. Technology brings positive impacts to

their learning experience. They get to know digital platforms and they are actively engaged in national and international seminars and conference which will expand their knowledge.

Conclusion

When a learning program implements the RCOI aspect well, then a dynamic interaction will be created in the teaching-learning process. Therefore, the RCOI aspect is considered suitable for use in evaluating the implementation of this online learning model program. In evaluating the results achieved by students, researchers look at the results of the learning program based on the opinions of learners on the experiences they felt during this learning program. Teaching Presence produces the opinion that learners are able to undergo lectures for one semester well where the instructional role in the learning environment they feel the presence through this method of flipped learning lectures (competence). Social Presence obtained the result that learners agree to all kinds of stimuli during one semester in this flipped learning can encourage colleagues and collaboration (compassion). Cognitive Presence produces the opinion that this flipped learning encourages the improvement of their knowledge and even the ability to think critically and creatively to become a person who loves to learn /studious (conscience). Learner Presence obtained the results that the learners underwent lectures for one semester strongly agreed that they felt the existence of coordination and independent learning (conscience). Technology Use produces the opinion that learners feel comfortable and easy in the use of technology during the lecture for one semester agree that this learning is effective and beneficial.

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