

THE INTERACTIVITY OF VIRTUAL LANGUAGE CLASS IN INDONESIA (A PHENOMENOLOGICAL STUDY)

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ABSTRACT: Inspired by lecturers' experience of Emergency Remote Teaching (ERT) during the COVID-19 pandemic, this phenomenological study presents an attempt at producing recommendations for the future construction of virtual language classes in Indonesia. The employed methodology was to carry out a focus group interview in order to collect research data and analyze them through Giorgi's (2012) 5-step procedure. First, researchers read the transcribed interview to get the whole sense of data while, in their efforts, reducing them into themes. Second, the absence of research bias was assured throughout data reduction. Third, meaningful comments were separated in order to group explicit phenomena according to their themes. Fourth, the themes were examined to structure the recorded participants' perceptions, and finally the structure was clarified and interpreted. Three themes emerged and were structured to produce recommendations for the future construction of virtual language classes in Indonesia. Further research needs to be conducted to investigate the effective peer-teaching to increase the interactivity of students' learning in virtual language classes and the absence of a virtual classroom model recommended in The Guidelines for The Development of Higher Education Curriculum in the Industrial Era 4.0 to Support Independent Learning – Independent Campus issued by the Ministry of Education and Culture.

KEYWORDS: asynchronous collaborative learning, community of inquiry, interactivity, instructional feedback mechanism, phenomena, phenomenological study, virtual class, language class

Introduction

When the pandemic struck the globe, schools, campuses and other educational services were shut down to prevent the spread of COVID-19. The traditional face-to-face (F2F) classes were then transformed into virtual classes, and at the same time, social distancing has become the ultimate reason for the practice of emergency remote teaching (ERT). Studies were then conducted to explore the drawbacks of remote teaching that should be minimized. Lack of interactivity (Misirli& Ergulec, 2021; Liu, 2018); students' demotivation (Shin & Hickey, 2021); and teacher and students' technology readiness and acceptance (Aguilera-Hermida, 2020) were among the list to be addressed in the ERT. Of the three, interactivity is considered the essential component to sustaining students' engagement and social interaction; promoting active learning between students; provide resources, tasks and activities in online learning (Chang & Kuo, 2021) and promote the use of multiple types of reasoning (Kaplar, et.al., 2022). Nevertheless, previous studies have shown that interactivity is a complex subject to define and measure (Janlert & Stolterman, 2017).

Interactivity, initially known as the heart of multimedia (Roper, 1995), was first considered the quality of computer media applications (Mayer, 1998). To discuss interactivity, at least two fields of education (computer sciences and sociology) should be considered. This signifies that interactivity does not solely belong to ERT. The concept of interactivity was also drawn from the Cybernetic Theory, in which interactivity was posited as an element of the channel through which communication occurs (Kiouisis, 2002). Meanwhile, from the perspective of sociology, interactivity was derived from the term "interaction", showing the relation of two or more humans with mutual orientation and interpersonal communication. The term at once mirrored a sequence of reactions in which one's action results in the other one's reaction. Although it used to be in existence of face-to-face communication, it is also common to occur within computer-mediated communication (Quiring & Schweiger, 2008; Yong, 2015). Based on the three views of different fields of study, it can be concluded that interactivity can represent a quality and fundamental element of two-way communication and the presence of an equal role to function in a social interaction mediated by computer applications.

Many educational types of research in the past put interactivity in conflict with whether it was an intrinsic component to allow for effectiveness and engagement during students' learning or whether it was just a complicated term to be measured (Sims, 2003). Two concepts were then added to describe interactivity in class: role-taking and feedback (Downes & McMillan, 2000), which is then expanded to the degree to which teacher-students can exchange roles in a communication process (Kiouisis, 2002). Both peer discussion and more contingent teaching were suggested to increase the level of interactivity (Draper & Brown, 2004).

From the view of web-based learning communication, Yacci (2000) conceived interactivity as an instructional feedback mechanism in the form of a message loop to represent a two-way interactive communication between teacher and student. The messages sent during an interaction must be coherent with one another, resulting in two different outputs: content learning and affective benefits. The complete message loop should be seen from the teacher's perspective and the student's perspective. It was advocated that the level of interactivity should increase when: (1) the two-way communication provides all participants with ample opportunities to communicate actively, (2) the timing of communication is flexible to meet participants' demands, (3) the communication environment creates a sense of place, (4) the participants perceive that they have control over the communication environment, (5) participants find the communication to be responsive and individuals perceive that the goal of communication is oriented more towards exchanging information than towards attempting to persuade (Koolstra & Bos, 2009); (Windasari et al., 2021).

From the view of learning theories, class interactivity is a component of teaching, reflecting the extent to which a teacher interacts with students during class session (Chang & Kuo, 2021; Wang et al., 2021; Kobayashi, 2019). The teacher-student interaction involves presenting explanations, contributing to supplementary understandings, asking and answering questions, and providing practical comments (Kobayashi, 2019). Moreover, class interactivity is also a mechanism through which students acquire information and develop cognitive and physical skills (Uppal et al., 2021). This justifies what has been conceived as a message loop-based instructional feedback mechanism to represent the concept of two-way interactive communication between teacher and student. Communication is based on information (knowledge in the context of a class) acquisition and cognitive and physical skill development.

Furthermore, interactivity has three levels of teacher-student communication, which can be considered the potential determinant of the effectiveness of students' learning (Kobayashi, 2019). The levels are non-interactive (when the student teaches him/herself), indirect teaching (when the teacher explains, asks questions, provides feedback, and more) and direct teaching (when a teacher teaches in a face-to-face manner, disregarding the context of offline and online learning). Essentially, knowledge emerges from teacher-student communication occurrences. The knowledge, therefore, can be constructed through sufficient level of interactivity (Bates, 2022).

Studies in the past have also advocated that interactivity can significantly enhance university students' active collaborative learning in online courses (Yong, 2015) and has a positive influence towards students' satisfaction (Chan et al., 2019). This claim was strengthened by proposing the potential of interactivity as the main component to determine the success of learning (Chang & Kuo, 2021; Kobayashi, 2019). To conclude, two aspects might be considered in perceiving interactivity, i.e., an intrinsic teaching component showing the extent of teacher-student interaction during class sessions and the mechanism for students to gain knowledge and develop their cognitive and physical abilities.

Prior to the COVID-19 pandemic, the empowerment of digital communication technologies has opened greater opportunities for technology-enhanced learning. During the ERT, the technologies have been exploited much more to attain the most benefits. Moreover, since the focus is the exploitation of ERT, class interactivity has not received much attention compared to the fulfilment of teaching expectancy. Students' process of studying materials in line with the expectation of the determined teaching goals (Wang et al., 2021) has been put further than the event of students interacting with their online learning environment to achieve the desired outcomes (Chang & Kuo, 2021). In short, class interactivity is present when there is an event of mutual engagement of teacher and students to interact within a specific learning

environment. The presence can be identified through the sustainable teacher-student interaction during in-class sessions and situated learning. Based on the reviewed literature, interactivity is defined as an intrinsic component of quality teaching representing the presence of teacher-students' equal role to function in interactive computer-mediated communication.

ERT is a transition from traditional F2F class instruction to a web-enabled F2F class as a response and an adaptation to the uncertainty during the COVID-19 pandemic (Hodges et al., 2020). Unlike online learning, the roots of ERT are not distance education. There was no initial plan and intentional design prior to the teaching delivery (Shin & Hickey, 2021). Although it takes the channels of online learning, the goal of ERT was only to provide temporary teaching-learning access for students until the state of pre-pandemic returns. In fact, the two-year transition has passed, and the pandemic remains.

ERT, in essence, has the characters of virtual classrooms at the first time proposed (Hiltz, 1986). At that time, she was still inquiring about the possibility of building a virtual classroom, conceived as “an interactive communication and learning space situated in a computer system” or teleconferencing. It was her belief that the use of teleconferencing can improve access to equal opportunity for quality education. The use itself should be seen as an effort to minimize the problems of gathering adult students from different time zones and geographical areas in a large class and to take the most benefits of virtual interaction and active learning (Hiltz, 1986). Later, the development of virtual classrooms has been encouraged (Michael, 2012) to establish a global learning plan that included students practicing various aspects of their global competencies (Patterson et al., 2011); to complement traditional F2F in-class curriculum to approximate a typical classroom for distance students (Xenos, 2018); to reduce the traditional face-to-face (F2F) in-class meeting (Palvia et al., 2018); and the last one, of course, to respond to such disaster as the COVID-19 pandemic (Gross et al. & Quan, 2022).

Furthermore, there were three models of virtual classroom proposed: (1) blended/hybrid model, (2) supplemental model, and (3) classroom-based model (Palloff & Pratt, 2013); (Blaine, 2019). Referring back to what has been conceived (Hiltz, 1986), a virtual class should also utilize multiple synchronous technologies to promote and sustain the interactive communication and learning space (Xenos, 2018; Manasijević et al., 2016). In addition, there are at least four relevant areas to address for the transformation of the traditional F2F class to a virtual classroom, and they are: 1) curricula change, (2) new patterns of interaction, (3) changes in the structure of organizations, and (4) roles and activities of participants (Harper et al., 2004). Since ERT took the roots of distance education in its implementation, there are also several considerations toward the transformation: (1) a combination of virtual and traditional F2F classes can be taken into relevant consideration in the transformation (Palvia, 2018); (2) learners' grouping - the attending students and the remote students (Raes et al., 2020); and (3) understanding or facilitating interactivity (Chang & Kuo, 2021). Based on what has been discussed, there are two implied expectancies for the potentials of ERT to be employed in the post-pandemic, i.e., to complement traditional F2F classes or to be proposed as a model of the virtual classroom.

Reflecting on what has been through and the appearance of a pandemic end, the researchers believed that the lecturers' teaching experiences during the ERT should be useful as insights and considerations for the future construction of virtual language classes in Indonesia. In particular, this research attempted to answer the main research question, “How was the interactivity of virtual language classes in Indonesia during the pandemic perceived by the lecturers?”

1. Methods

This qualitative research employed the phenomenological approach to understand better the virtual language class interactivity during the COVID-19 pandemic, which has been perceived from the lecturers' perspectives. In its simplest terms, phenomenology is the science of phenomena: events, processes or relationships (Smith et al., 2009). Each phenomenon is analyzed from the subjective perspective of research participants involved in the event. The participants directly experienced the event and actively made meaning from their experiences

(Groenewald, 2004). One important benefit of employing phenomenology is that it equips the researchers with a wealth of ideas for further examination and comprehension (Smith et al., 2009). The fundamental goal of phenomenology is to reduce individual experience portrayal of a phenomenon to a description of the universal essence (Creswell & Poth, 2018).

Moreover, the event studied in this research was the lecturers' two-year experience during the COVID-19 pandemic, during which virtual class was the only choice in teaching delivery. The research sought to identify commonalities in the lecturers' experiences during the pandemic. As this research is preliminary to developmental research, an in-depth understanding of their experiences teaching virtual classes can be used as insights and a framework to construct a virtual language class prototype.

Research data were collected through focus-group interviews. The decision to choose the technique was to concentrate on the shared perception (Gubrium et al., 2012) of Indonesia's virtual language class interactivity during the pandemic. Focus groups are beneficial when the interaction among participants yields the best information. The focus group can work well, especially when the participants have similarities and can cooperate with each other. In this research, the participants were purposively recruited for their experiences in English language teaching during the two-year ERT. There were three inclusion criteria for participants' selection: first, they must have teaching experiences in virtual language classes; second, they are willing to join the interview for this study; and third, they are lecturers with a master's degree in the areas of Language Education,

The recruitment process started on May 2, 2022, by sending focus-group interview invitations to fellow lecturers through instant messaging applications. The process lasted for two weeks. Of the 53 contacted, 44 responded and agreed to participate in the interview via videoconferencing. The invitation also included choices of time convenient for participants and the length of discussion (around 1 hour). Next, as the number of participants was quite large, three groups were sorted based on their convenience of time. Two groups (A and B) consisted of 14 participants, while one group (C) had 15. Then, the invitations were forwarded to each of them. Therefore, the focus group interview was conducted three times/ sessions. The researchers acted as moderators to maintain their objectivity by establishing a positive connection with the participants (Wilson, 1997). Group A was interviewed first, while Groups B and C followed later. The names of participants in each session were replaced by numbers arranged in order of their joining the videoconferencing. During the session, less than half of the participants (3-5 people) actively responded to the moderator's questions. Others preferred to agree with responses or remained silent. This is a limitation of the study: too few participants responded compared to the total participants and too many participants were interviewed. Both are considerations for future research.

Several steps were taken to conduct the focus-group interview. First, group discussion was generated through the use of an interview protocol. The protocol consisted of three open-ended questions: (1) How do you perceive the virtual language class interactivity during the COVID-19 pandemic? (2) What aspects can increase the interactivity level? And (3) what tasks, activities or media can improve the interactivity level? After welcoming the participants, the researchers shared an overview of class interactivity as a teaching component to reflect the two-way interactive communication between teacher and students in the virtual language class and the instructional feedback mechanism. Two ground rules were established: each participant was free to share his/ her experiences, and confidentiality was affirmed. To ensure the confidentiality of all participants, numbers were used instead of names, and the personal information identified was removed from the transcripts.

Research data were generated by transcribing the recorded interview. Giorgi's (2012) 5-step procedure was taken to analyse the data: First, researchers read the transcribed interview to get the whole sense of data while reducing them into themes. Second, the absence of research bias was assured throughout data reduction. Third, meaningful comments are separated to make explicit phenomena studied into themes. Fourth, the themes are examined to structure the recorded participants' perceptions explicitly, and the last is clarifying and interpreting the structure. For example, keywords were taken from participants' comments on their perception of interactivity in determining the first theme. This was done by associating participants'

comments with the reviewed literature and researchers' definitions/concepts of interactivity. From the reviewed literature, interactivity is perceived as a teaching component showing the extent of teacher-student interaction during class sessions and the mechanism for students to gain knowledge and develop their cognitive and physical abilities, which are present when there is an event of mutual engagement of teacher and students to interact within a specific learning environment (Chang & Kuo, 2021; Wang, Lin, & Chen, 2021; Uppal et al., 2021; Kobayashi, 2019). Based on the researchers' definition, interactivity is an intrinsic component of quality teaching representing the presence of teacher-students' equal role to function in an interactive computer-mediated communication. Below are the participants' comments on the first question: “How do you perceive the virtual language class interactivity during the COVID-19 pandemic?”

*"During the pandemic, I cared much about how they (students) responded to the teaching. I even had the evaluation, **synchronous** (RW)."*

*"I always shared the assignments or information **through any channel of communication** (YBA)."*

*"It (**video conferencing or interactive multimedia**) helped you interact with them. Not all students are familiar with a particular application, are they?" (AFA).*

*"Interactive is seeing your students responding actively in the class or a group discussion. It (**interactivity**) is irrespective of whether it is synchronous or asynchronous. I would rather **observe an increase or decline in interaction from student or lecturer feedback** given through any communication channel (VIK)."*

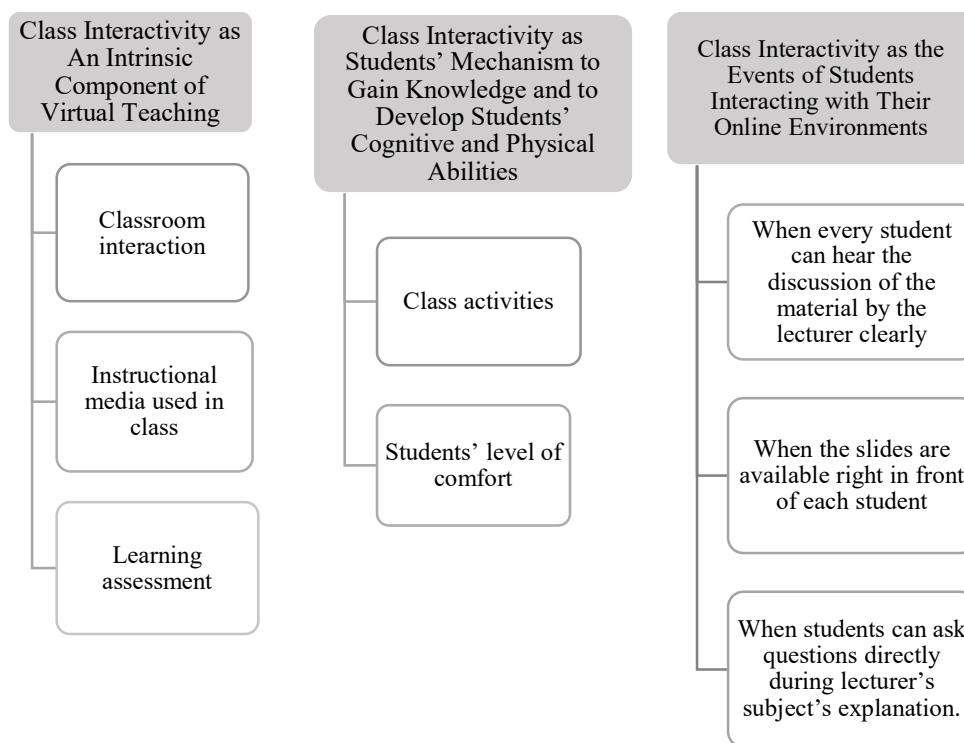
The first theme emerged from keywords taken from participants' comments. Only comments that specified a theme were displayed. The keywords were associated with the reviewed literature on interactivity as the extent of teacher-student interaction during class sessions and with the researchers' definition of interactivity as the intrinsic teaching component. The keywords are students' response, students' active response, synchronous, channel of communication, interactive multimedia, and lecturer-students' interaction. Clarifying and interpreting the theme was done in the results and discussion.

Potential ethical concerns were minimally addressed because all participants were educated professionals with experience conducting research and were grown adults (Lee, 2020). Also, the participants had been voluntarily included and orally informed about the study (Bengtsson, 2016). Multiple techniques were employed to increase the study results' trustworthiness (research credibility, dependability, confirmability, and transferability). To increase the research's credibility, participants were asked to review the transcribed interview and provide input to affirm a good depiction of their experiences. A co-researcher who was not engaged in the data collection rechecked and verified the themes for research dependability. Field notes were also taken during the transcription to enhance research confirmability. Equally significant facilitating the research transferability by explicitly documenting the specifics of the study design, participant characteristics, data collection and analysis techniques (Lai AY-k et al., 2021).

2. Results

Based on the participants' perception towards the virtual class interactivity, there are three themes emerged. The themes are listed in Table 1 and the findings were detailed following them.

Table 1. Emerged Themes



2.1 Theme 1: Class Interactivity as An Intrinsic Element of Virtual Teaching

As the first one to emerge, this theme signifies that virtual classroom interactivity pertains specifically to virtual classroom interaction. Here are the participants' comments sorted into this theme:

*"During the pandemic, I cared much about how they (students) responded to the teaching. I even had the evaluation, **synchronous** (RW)."*

*"I always shared the assignments or information **through any channel of communication** (YBA)."*

*"It (**video conferencing or interactive multimedia**) helped you interact with them. Not all students are familiar with a particular application, are they?" (AFA).*

*"Interactive is seeing your **students responding actively** in the class or a group discussion. It (interactivity) is irrespective of whether it is synchronous or asynchronous. I would rather **observe an increase or decline in interaction from student or lecturer feedback** given through any communication channel (VIK)."*

Based on the utterances, several aspects are perceived in the virtual class interactivity, i.e., active response, synchronous/ asynchronous, channel of communication, interactive multimedia and lecturer-student feedback. From their perspectives, the extent of interactivity was reflected in students' willingness to ask and answer the lecturer's questions, students' participation in small group discussions and their posts/ replies in the class discussion forum during the asynchronous sessions. Additionally, it occurred that most participants from all sessions uttered "active response" and "synchronous/ asynchronous" simultaneously when sharing their perspectives. This implies that interactivity is an intrinsic element influencing lecturer-students' class interaction regardless of the modes of delivery (synchronous and asynchronous). Subsequently, interactivity can be identified or potentially measured from the aspects perceived. This appears to imply that most lecturers perceived virtual classroom interactivity as the lecturer and students' active interaction in classroom activities. It also

suggests that interactivity plays the largest part in ensuring the quality of lecturer-student interaction in two-way virtual classroom interaction.

Raising the modes of delivery in virtual classes has brought the use of digital technology to support two-way interaction. Hence, using interactive multimedia as instructional media in a virtual classroom is indisputable.

“I always shared the assignments or information through any channel of communication. And of course, there should be two-way communication (YBA).”

“Assessment has always been the concern. As most lecturers are only familiar with Google Forms ... er (laughing), we tried hard to make it (assessment) more interactive so that they can have the experience of learning. More taped tasks and less written assessment (SMK).”

A point to highlight in the delivery is that the use of interactive multimedia or multiple synchronous technologies were expected to create students' sense of being present in class and to develop the sense of belonging in the virtual class (from 30 participants in all sessions). As a matter of fact, both have always been the major problem in the virtual class. On top of that, pandemic COVID-19 has led to the necessity of social distancing. This ended in the development of feeling isolated. It is obviously not an easy task for lecturers to plan activities maintaining students' engagement in a short-time preparation. But the efforts to transform the concrete class instructions using interactive multimedia have mirrored lecturer's attendance for students to experience the teaching presence. The experience is key to sustain the interactive communication and learning space (Gross, Ling, Richardson & Quan, 2022; Rizvi & Nabi, 2021; Palvia, 2018). Furthermore, the presence of a teacher determines the appropriate cognitive and social presence when interactive synchronous technology such as videoconferencing is the primary channel of communication in class (Garrison, Anderson, & Archer, 1999). All of three presences must coexist to create an effective combination for students to foster deep, meaningful, and high-quality learning experiences (Turk, Muftuoglu, & Toraman, 2021). In definition, teaching presence is the design, facilitation, and direction of cognitive and social processes with the goal to bring about the personally meaningful and educationally impactful learning outcomes" (Anderson et al. 2001, Donlon, 2022).

On the other hand, assessment is not as extensive as in conventional face-to-face classes. Two challenges were mentioned earlier i.e., creating students' sense of being present in class and developing the sense of belonging in the virtual class. This is the rationale to give students a larger role to solely function in learning (Grenier, et.al, 2020). Sixteen participants stated that grouping students for project collaboration can sustain and assure the virtual class interactivity. Here are three participants' comments on virtual class assessment:

“I'll say, assigning students in small groups and let them do the project with our clear direction can be more interactive than the classroom interaction (VIK).”

“Multiple-choice is hard to develop, but time-efficient when assessed (PR).”

“Essay-writing can also be a choice, but plagiarism is a new task for us, lecturers (YM).”

In connection with the previous discussion on the importance of teaching presence, assigning students with collaborative projects or group discussions provides opportunities for students to take greater responsibility for meaningful and impactful learning. More remarkably, fostering student collaboration can potentially contribute to the existence of social presence in a virtual class (Singh et al., 2022).

2.2 Theme 2: Class Interactivity as Students' Mechanism to Gain Knowledge and to Develop Students' Cognitive and Physical Abilities

The second theme aligns with Garrison's Community of Inquiry (CoI) framework (Garrison et al., 1999). The framework was composed of teachers (in this research refers to

lecturers) and students as the key participants in the community. Here are the participants' utterances which support the second theme to emerge:

“In my opinion, interactivity is also reflected from whatever they (students) have improved (AF).”

“Their (students) willingness to communicate, activeness, and participation was teacher-dependent. In the simplest term, it also reflects teacher's knowledge in his/ her repertoire of contents, activities and assessment. Once again, during the pandemic, teacher has no specific training to transform their face-to-face class into the virtual class. Mostly, in my case, I have to reconsider what should I do to maintain the class discussion. Sometimes, I could feel my students have no time to share how they proceed the information shared (content). But, I have so limited time that pushes me to give a quick feedback and just go on and on with the next materials.... (laughing) (MS).”

“Agree (with Participant No.3), as we see interactivity develops in teacher-students, student-student interaction, it is in relation to the class activities (AME).”

This theme focused on the prerequisites for students to gain knowledge and develop their cognitive and physical abilities. It is unfortunate that students were encouraged to proceed with information due to the lecturer's lack of experience in teaching virtual language classes. The shortcomings are due to the fact that learning takes place in an emergency remote teaching. Additionally, the absence of an initial instructional plan and design might fail to realize the determined teaching goals. In their framework, Garrison, Anderson, & Archer (1999) raised this situation as teaching presence, which is "the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes". Only an active teacher can make collaborative computer conferencing or cooperative learning a useful instructional and learning resource. Referring to participants' utterances, the lecturer's knowledge is related to not only his/ her activeness to attain useful instructional and learning resources but also immediate and proper change in the patterns of interaction and roles and activities of participants (Harper et al., 2004) during the ERT. As the teaching presence is not fully "present", cognitive presence is measured through any improvement made and achieved by students in fact. This is acceptable as the lecturer's being modest to his/ her shortcomings.

Cognitive presence describes how a learner can make sense of the course content through critical discourse and interpersonal interaction by integrating various pieces of information and applying what they have learned to novel circumstances to solve problems (Turk et al., 2021). This extent, as Garrison affirmed, should be a concern in the first meeting at which the establishment of relationships and students' comfort levels was nurtured in the virtual class. It considers students' comfort level to maintain the interactive class activities. At this point, it could be concluded that the participants have put interactivity as a subject to be attained by incorporating engaging class activities with two-way communication as the focus. Singh, Steele, and Singh (2021) asserted that engaging activities will direct students to feel a sense of collaboration and working in a team. Based on their finding, it might also be relevant to infer that class interactivity is also perceived as student-student interaction in the form of class discussion or small group discussion. A quite different perspective was taken from the following statement:

“I have some concerns for students' learning pace. I believe this is also essential when discussing the virtual class interactivity. Referring to Participant No, 3, I think that students' activeness was not only determined by the teacher, but also with their peers. Students tend to be comfortable in class when they think that they are not the only “not yet understand student. Being in a group or in pairs can minimize their hesitance to speak up or to participate in activities. This grouping can also balance their pace gap (MHD).”

According to the statement, it might be inferred that a student's comfort is related to his/ her self-regulation in learning. It means that flexibility shall be the key to student's comfort.

Garrison refers to students' comfort as a social presence, which is the degree to which students present and establish themselves and perceive others as "real humans" (Turk et al., 2021). An effective social presence provides critical thinking processes in a community of learners and enables pupils to express themselves freely, make connections, and function as a cohesive group (Singh et al., 2022). As a result, a more meaningful and engaging learning experience shall be achieved.

2.3 Class Interactivity as the Events of Students Interacting with Their Online Environments

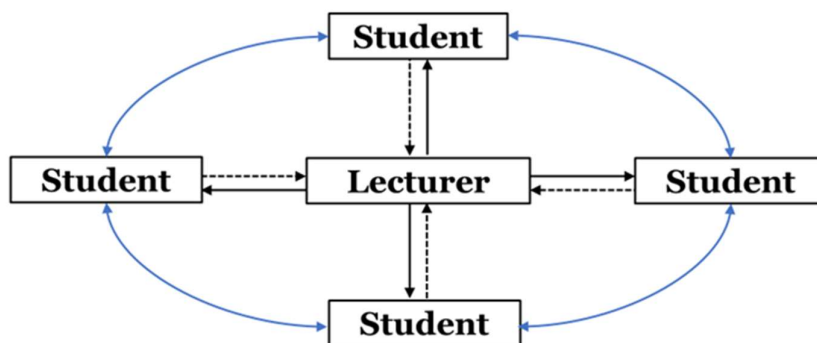
The last theme to emerge is that interactivity is the event when students interact with their online environments. These were taken from the participants' agreement towards three events reflecting the existence of interactivity. The events are: (1) when every student can hear the lecturer's discussion on the course content clearly; 2) when the slides are available right in front of each student's screen; and 3) when students can ask questions directly during the lecturer's content explanation. The three events, in essence, put forward the significance of students' familiarity with the virtual learning environment achieved from their readiness to use the technologies employed by the lecturer. In addition, a comfortable place to study in a virtual class, home situations and conditions, and well-established network connectivity can complement the events. However, network connectivity is still challenging in online learning environments (Singh et al., 2021).

3. Discussion

On the basis of the themes discussed, virtual language class interactivity has been perceived from three perspectives in Indonesia: the classroom interaction, the students' mechanism to gain knowledge and to develop students' cognitive and physical abilities, and the events at which students build a connection with their virtual learning environment. Interactivity in the virtual class is an intrinsic component of quality teaching, representing the presence of teacher-students' equal role to function in an interactive computer-mediated communication. This also confirms that interactivity is a complex subject but is definable and measurable. The three perspectives were facilitated by what has been proposed as the coexistence of teaching and social and cognitive presence. In Indonesia, teaching presence is still absent due to the shortcomings of planning and designing for cognitive and social presence in ERT. Moreover, there are two areas to address for the construction of virtual language classrooms in Indonesia: (1) new patterns of interaction and (2) changes in the structure of organizations. A new interaction pattern highlights the importance of the "human element" to develop an elevated degree of teamwork and foster strong peer interaction. Meanwhile, participants' new roles and activities show the lecturer's attitude toward technology used in language learning. The attitude influences the lecturer's approach to his/ her teaching.

Relevant to the importance of the human element in the construction, two tasks are endorsed for virtual language classrooms in Indonesia: collaborative projects or small group discussions. The two tasks could be incorporated as part of class instruction to actively engage students' interaction with lecturers and their peers regarding the potential of ERT to be employed in Indonesia both as a complement to traditional F2F classes or to be proposed as a model of the virtual classroom. As the human element has become a necessity for students in Indonesia, there should be an adaptation to the concept of interactivity as an instructional feedback mechanism from Yacci (2000). The adaptation is realized by adding peer teaching to direct teaching or alternating non-interactive teaching as a mediating level. The adaptation shall improve and increase the interactivity for virtual language classes in Indonesia (See Figure 1).

Fig. 1. The proposed virtual instructional feedback mechanism (adapted from Yacci, 2000)



It can be seen in Figure 1 that after the lecturer's message flows to students (represented by the black lines), peer-teaching (represented by the blue lines) can be involved to improve students' first level of interactivity and maintain the mutually coherent interaction. Peer-teaching accommodates the need for a human element. However, the involvement might result in response lags or delayed responses from students (the black-dotted lines). In addition, the lags can also indicate a need to interact with the teacher. Based on this, the instructional feedback mechanism is no longer seen as a message loop with vertical direction from teacher to students. With the larger role of students as learning facilitators, the sent lecturer message qualifies the unique contributions of every student to actively collaborate in bringing new information (from the lecturer's message) to their existing knowledge and in reducing students' feelings of being isolated in the virtual class. In short, lecturers can take advantage of peer teaching to assist each student with friendship development, learning motivation, and effective peer collaboration. This shall also help sustain the social presence in virtual classes and network connectivity concerns. Therefore, the virtual classroom models proposed for Indonesia is a blended/ hybrid and supplemental models.

There are several recommendations for constructing virtual language classes in Indonesia. They are:

- a. Students need responsive communication in virtual classrooms; therefore, considerable opportunities for two-way communication (teacher-student and student-student interaction) should be optimally planned.
- b. Class activities incorporated establish lecturer-student relations and promote students' level of comfort in class. Taking asynchronous collaborative learning as an activity shall be beneficial to accommodate the establishment of social presence and the initiation of critical thinking (Junus et al., 2021). Blending the F2F and virtual class can also be the sensemaking of the "asynchronous".
- c. Students' readiness to use the technologies employed builds their connection with the virtual learning environment.

4. Conclusions

In Indonesia, during the pandemic, virtual language class interactivity is perceived as an intrinsic component of quality teaching, representing the presence of a teacher-student equal role in interactive computer-mediated communication. Interactive communication should occur between lecturer-students, student-student, and student-virtual learning environments. The aspects that increase the interactivity level are the co-existence of teaching, social and cognitive presence from the CoI framework, and the involvement of peer teaching. Further research needs to be carried out to investigate effective peer-teaching to increase the interactivity of students' learning in virtual language classes and the absence of a virtual classroom model recommended in The Guidelines for The Development of Higher Education Curriculum in the Industrial Era 4.0 to Support Independent Learning - Independent Campus issued by the Ministry of Education and Culture.

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