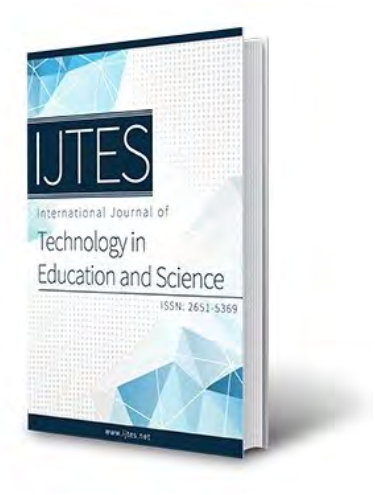

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Abstract

This study explored the online teaching experiences of the Junior High School teachers through the lens of the Community of Inquiry (CoI) framework by investigating their perceived level of confidence, pedagogical practices and encountered challenges. Employing concurrent-convergent mixed method design, the study included 66 Junior High School teachers who perceived themselves most confident in the aspect of teaching presence, followed by cognitive presence, then social presence. Having CoI as the school's adapted framework in facilitating online instruction, teachers identified CoI teaching strategies that address the challenges and hindrances in the execution of online instruction underscoring the different presences (teaching, social, and cognitive) and raised instructional dilemmas and challenges that hinder its optimum execution. Recommendations were also offered as inputs in the improvement of the existing school policies and practices in the conduct of online teaching and learning.

Introduction

The COVID-19 pandemic altered the way education is delivered to the learners and its impact to curriculum, pedagogy and assessment paved the way for a new face of education. This unforeseen event has brought new lessons, experiences, and opportunities to all school stakeholders to migrate the conventional face-to-face mode of instruction into a virtual learning environment. The unprecedented and sudden shift of practices to online education gave rise to a multitude of concerns about its quality and effectiveness. It has long been acknowledged that online instructional methods are efficient for learning (Aronoff, et al., 2010) because of its accessibility, flexibility, and affordability (Dhawan, 2020) and these advantages remain the same. However, due to the sudden shift to this mode of learning, the foremost challenge is attributed to migrating the established routines, the practices and the expectations that have developed among teachers and students (Bryson and Andres, 2020) especially embracing it during difficult circumstances such as the pandemic which entails other issues and challenges encountered by the school stakeholders. As cited from Khan, et al (2021), the integration of technology into the transfer of learning while juggling with various communication channels and student engagement is a challenge among teachers. The transition to this new mode of instruction was never easy as both teachers and learners are confronted with problems on readiness, lack of stable internet connectivity and lack of interaction which disrupt the communication and meaningful engagement between the teachers and the

students which is what Dumford and Miller (2018) emphasized to be very essential. More importantly, the lack of precedent as to the expectations and the needed mechanisms restrict schools to function and optimize the benefits of online education.

In doing so, there is a need for institutions to adapt a framework to consolidate and recalibrate all the practices in online education taking into consideration the essential aspects that the teachers must do and the learners must be exposed to. Adapting a framework will guide policy makers in setting the parameters and the expectations needed with the main purpose of delivering quality online education to the students. Furthermore, this may help school leaders in bridging the gaps and executing appropriate interventions guided by existing theories which were proven to be effective as affirmed by empirical evidence. Therefore, it is imperative to schools that have just started mainstreaming online education to employ a framework in optimizing its efficiency in the learning engagement of the students.

One of the existing and widely used models in assessing effective online education is the Community of Inquiry (CoI) which supports creating a community in online platforms. It is built from a social constructivist perspective that offers a framework for online educational learning space (Garrison, et al., 2000). The concept of CoI has been continually researched for the past years (Park and Shea, 2020; Castellanos-Reyes, 2020). Recent studies have explored CoI in the conduct of online learning such as correlating it to students satisfaction to self-efficacy (Yandra, et al., 2021); the significant role of giving feedback to develop it together with reflective thinking (Yilmaz, 2020); as blueprint mechanism to assess learner's online learning experience (Miller, et al., 2020); its link to person-centered education (Swan, et al., 2020); and using a social media-based environment to develop it (Popescu and Badea, 2020).

CoI outlines the necessary components that contribute to effective online teaching and learning. These are the teaching presence, the social presence and the cognitive presence which are deemed necessary to build meaningful and productive online learning experiences to students (Garrison, et al., 2000) as they build a strong sense of community that aims to increase the exchange of information, and support commitment and cooperation among members (Fiock, 2020). The teaching presence underscores the role of the teachers in the different phases of online instruction which specifically include (a) instructional design and organization such as setting curriculum and designing methods; (b) facilitation such as setting the learning climate and reinforcing learners' contribution; and (c) direct instruction such as summarizing the lesson, presenting content and questions (Anderson, et al., 2001). The social presence accounts for the development of social connections among the learners and with the teachers while maintaining a productive learning atmosphere. It is addressed by three dimensions: (a) open communication which develops learners' mutual awareness and recognition; (b) affective expression in terms of sharing personal values and expressions, and (c) group cohesion where learners build a sense of commitment (Garrison et al., 2000). Cognitive presence dwells on how students construct and make meaning through sustained learning engagements. It is structured based on the following phases: (a) triggering event, when a problem is identified for further inquiry, (b) exploration, in which learners explore a particular issue, (c) integration, which gives learners the opportunity to form meanings out of exploration, and (d) resolution, in which learners apply what they have learned (Garrison et al., 2000). This presence is mediated

by teaching and social presence (Stenbom, 2018).

Through the lens of the Community of Inquiry (CoI) framework, this study examines the dynamics of the pedagogical practices and instructional dilemmas of the Junior High School teachers in their attempt to employ the different dimensions of the framework in the practice of enriched virtual mode of instruction. Using the CoI framework to assess the experiences of teachers can ensure whether the necessary elements of online education are evident. Findings of this study can help schools better redirect the emerging gaps to improve policies and be responsive to the demands of effective and meaningful online teaching and learning.

Research Questions

This study explored the online teaching experiences of the Junior High School teachers through the lens of the Community of Inquiry framework. Specifically, it sought to answer the following research questions:

1. What is the level of teachers' perceived confidence in addressing the teaching, social and cognitive presence in online teaching?
2. What are the pedagogical practices of teachers that address the teaching, social and cognitive presence in online teaching?
3. What are the challenges encountered by teachers in addressing the teaching, social and cognitive presence in online teaching?
4. What are the recommendations of teachers in improving their online teaching practices?

Method

The participants of the study included 66 Junior High School faculty members of a private school in the city of Manila consisting of 49% male and 51% female. The school is employing an enriched virtual mode of instruction during the School Year 2020-2021 in response to COVID-19 pandemic. The institution is using Cloud Campus (CC), a cloud-based infrastructure powered by Blackboard, a world - class learning management system (LMS), maintained by the school's Educational Technology Center, and enhanced by Google for Education. Following a 5-day cycle, the students attend synchronous classes twice a week per subject except for Music and Physical Education (PE). In terms of time allotment, 1 hour per period is given for English, Mathematics, Science and Technology and Livelihood Education (TLE) while 45 minutes is allotted for Filipino, Christian Living Education (CLE), and Social Studies. In the instructional schedule, 4 days are reserved for the academic subjects including synchronous and asynchronous sessions and one more day is allotted for consultation and other student activities.

This study utilized a concurrent-convergent mixed methodology. It involves a single study consisting of both qualitative and quantitative data collection with the analysis conducted separately but at the same time (Kroll et al., 2009). The quantitative aspect measured the perceived level of confidence of the teachers with regards to their online pedagogical practices which address the social, cognitive, and teaching presences in their online teaching experiences using the instrument by Arbaugh, et al. (2008) based on the Community of Inquiry (CoI)

proposed by Garrison, et al. (2000). The modification of the instrument included converting the statements to the teachers' point of view to suit the context and focusing on teachers' level of confidence. Additional items about the teachers' use of the learning management system (LMS) were included. This framework was introduced to the faculty members as the blueprint of all the policies of the school in its transition to online teaching in the beginning of the School Year 2020-2021 during the onslaught of the COVID-19 pandemic. The qualitative aspect on the other hand included open-ended questions to examine the teachers' challenges and pedagogical practices anchored to the said framework.

The quantitative data were tabulated and analyzed using the descriptive statistics of mean and standard deviation. The data from the open-ended questions were analyzed using deductive qualitative content analysis, also called concept driven (Shrearer, 2012), to test the implications of existing theories about the phenomenon under study against the collected data (Graneheim, et al., 2017). In the treatment of the data, the researchers looked for similarities and differences which were then categorized thematically.. This procedure allowed the researchers to move from theory to data or from a more abstract and general level to a more concrete and specific one.

Results

Teachers' Perceived Confidence, Pedagogical Practices and Challenges in Addressing the Teaching Presence

Teachers play a crucial role in the conduct of learning in whatever modalities of instructional delivery. This role comes with a set of responsibilities and expectations to fully engage the learners in the process. The aspect of teaching presence as identified in the Community of Inquiry (CoI) is important because it connects the facilitators and the learners who are both not physically connected (Zhang, et al., 2016). Wang and Liu (2020) posited that teaching presence gives direction to learners' interaction and facilitates collaborative knowledge construction. As anchored from CoI, teacher participants' perceived confidence in exercising the different aspects of teaching presence are tabulated in Table 1.

Table 1. JHS Teachers' Perceived Confidence in Addressing Teaching Presence in Virtual Teaching

Dimensions	$\bar{x}$	SD	Q
Design and Organization	5.45	0.62	C
Facilitation	5.36	0.69	C
Direct Instruction	5.30	0.76	C

$\bar{x}$ = mean, SD = standard deviation, Q = Qualitative Description

It can be deduced that teachers perceived themselves confident in all the aspects of the teaching presence. They are most confident in addressing the design and organization in the online platform (5.45) while they feel least confident in terms of facilitating direct instruction (5.30). The former deals with the way teachers communicate the objectives of the lessons, instructions on how to partake in the activities, and cascading important time frames, while the latter involves employing relevant issues in the lessons and the provision of timely feedback to

formatively assist the students in the process. The confidence of the teachers in assuring the design and organization of the different aspects of the subjects can be attributed to the school's existing mechanism in the presentation of the contents such as the use of quarterly instructional schedule (QIS), weekly instructional schedule (WIS) and learning maps (LMs). The Quarterly Instructional Schedule (QIS) is a learning area-based curricular document containing a matrix of the list of lessons and/or activities for all the grade levels. This document is accomplished in preparation for the quarter for the purpose of budgeting the instructional services; assuring that they are aligned with the list of the most essential learning competencies; and planning and preparing assessment. The Weekly Instructional Schedule (WIS) on the other hand, contains a table of the list of lessons and/or activities for the week. This document is accomplished to ensure that instructional services are aligned with the subject outline as declared in the Learner's Map (LM), and to guide the students and parents in the planned weekly academic activities. Lastly, the Learner's Map (LM) is a document that guides both the students and parents in navigating a learning area's unit/s in a quarter. It provides the learning competencies, key concepts, learning episodes, set of learning materials/resources and activities, schedule of summative assessments, and a brief description of the performance task (PeTa), grading scheme, and other learning supports. The use of the aforementioned mechanism is consistent with the work of Gray and DiLoreto (2015) which may greatly influence learners' satisfaction.

In addition, the features of the learning management system (LMS) where learners can easily navigate the different learning paraphernalia, assisted teachers to organize their contents and communicate important information to students. LMS is an effective way of delivering instructions and offering space of learning for students (Wichadee, 2015) as it provides 24/7 access to the content of the subject and at the same time providing convenient creation of online learning activities and management on the part of the facilitators (Bousbahi and Alrazgan, 2015). As described in the methodology of this paper the school is using Cloud Campus (CC), a cloud-based infrastructure powered by Blackboard, a world - class learning management system (LMS), maintained by the school's Educational Technology Center, and enhanced by Google for Education. To assess teachers perceived confidence in using the LMS, the graphical representation below presents the trend of their responses.

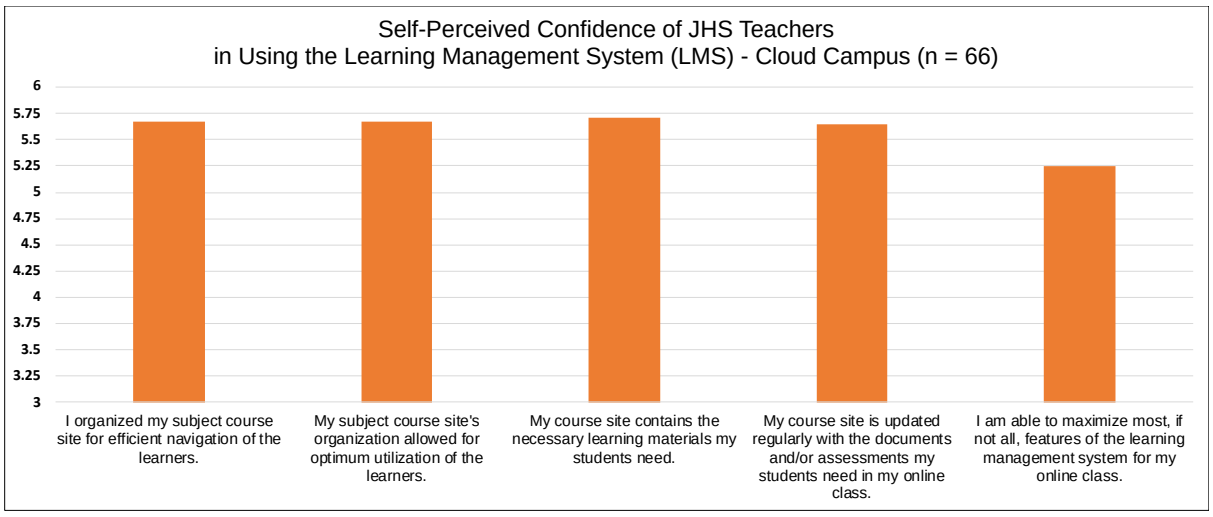

Figure 1. Self-Perceived Confidence in Using the Learning Management System (LMS)

From the graph, teachers rated themselves very confident in all the items pertaining to the utilization of the LMS except on maximizing its features. The items with rating of very confident are organization of the subject course site for efficient navigation (5.67); organization of the course site for optimum utilization of the learners (5.67); contents of the course site (5.71); and updating the course site (5.65). Fearnley and Amora (2020) opined that the perceived self-efficacy of the teachers strongly correlated the perceived usefulness of the LMS which indirectly affected the behavioral intention and attitudes of the teachers toward technology.

In terms of the common pedagogical practices employed by the teachers, four themes emerged from their responses: (a) practices that assures design and organization; (b) practices on how online teaching is facilitated; (c) practices which addresses communication and monitoring; and (d) practices that aim to establish positive online learning atmosphere. Table 2 enumerates the practices identified by the teachers under each theme.

Table 2. Pedagogical Practices of JHS Teachers in Addressing the Teaching Presence

Design and Organization	Facilitation	Communication and Monitoring	Establishing Positive Learning Atmosphere
● Consistency in giving the objectives of the lesson every session ● Establishing routine during synchronous sessions	● Having graded recitations ● Gamification ● Integrating current events ● Using live performances ● Use of MS OneNote, Phet simulations, Kahoot, menti, jamboards, virtual tours, interactive lectures ● Provision of video tutorial (skill-based subjects) ● Use of infographics ● Sending solutions to word problems through private messaging ● Having camera turn on during class discussion ● Provision of immediate feedback ● Using discussion board	● Extensive accommodation on students' concerns ● Using various communication platforms ● Using real time tracker for noncompliance	● Punctuality every synchronous sessions ● Giving quotes/ points to ponder/ food for thought at the end of every period ● Establishing welcoming classnet ● Constant *kumustahan* (to inquire about the students' condition)

The first two themes, design and organization and facilitation, are dimensions of the CoI's teaching presence. These two dimensions are consistent to the items where teachers are most confident as previously reflected in Table 1. The facilitation aspect deals with how teachers manage the learning of the students in the online platform without compromising its productivity while developing a sense of community. Ladyshewsky (2013) and Martin, et al. (2020) also conducted a survey to faculty members regarding their facilitation strategies and pointed out the role of facilitation to be critical in the success of online learning. Supporting these strategies are the mechanisms of communication and monitoring of learners which have been considered to be very essential

in assuring their engagement and cooperation to the demands of online instructions. Interestingly, establishing a positive online learning atmosphere emerged as one of the practices of teachers in assuring their presence in the classnet. In the study of Kaufmann and Vallade (2020), they underscored the importance of the teachers' role on this in terms of building and maintaining rapport and positive climate in the online platform.

Despite the teaching presence strategies of the teachers, they raised several challenges that are capped into three themes: logistic concerns, lack of learners' participation and alignment of the nature of the subject. Technical issues include the absence of requiring learners to turn on their cameras during synchronous sessions being part of the school policy, connectivity issues and some cases of gadgets incompatibility of the applications being introduced to the students. Mishra et al. (2020) pointed to this as the common challenge between the teachers and students in adapting to online learning which amplifies digital divide (Govindarajan and Srivastava, 2020). Since all instructions are dependent on the utilization of the internet to facilitate the exchange of engagement between teachers and students, the issue of connectivity disrupts the process and limits teachers' capacity to use pedagogical strategies that are fully dependent on the bandwidth of internet connection. In doing such, teachers need to consider supplementary platforms for learning based on its urgency and bandwidth which is identified by Stanford (2020) as primary considerations. Teachers also raised challenges on the lack of learners' participation which include noncompliance to requirements, lack of cooperation and motivation and tardiness.

Lastly, some learning areas highlighted the challenges in migrating the skill-based nature of their subjects in the online space (see Table 3). English teachers pointed out limitations in engaging the learners in communicative activities; Physical education teachers encountered difficulty in providing instructions in doing physical tasks; and Music teachers found restrictions in letting learners experience making music. Additionally, learning areas which give individual learning tasks encounter too much time spent in providing feedback to the outputs of the learners.

Table 3. Perceived Challenges of Junior High School Teachers' in Addressing the Teaching Presence

Logistical Concerns	Lack of Learners' Participation	Alignment of the Nature of the Subject
● Not requiring learners to turn on their cameras ● Connectivity issues ● Incompatibility of the applications	● Lack of active participation ● Noncompliance ● Lack of learner's motivation ● Lack of learners' cooperation/ unresponsive ● Habitual tardy students	● Challenge for students to engage in communicative activities ● Giving instructions in doing physical tasks/ activities ● Hard to let the students experience making music ● Too much time spent in giving feedback for individual performance tasks and mini tasks ● Lack of variations in terms of the delivery of the lessons

Teachers' Perceived Confidence, Pedagogical Practices and Challenges in Addressing the Social Presence

Despite the sudden change in modality brought about by the pandemic, it is still imperative that the students be given opportunities for genuine and meaningful interaction. Realness and authenticity are key aspects in shifting or transferring lessons and concepts in an online setting since learning is enhanced or strengthened if the affective needs of the participants are also met. This is where the social presence indicated in the Community of Inquiry comes to the fore. As emphasized in the work of Saville, Lawrence, & Jakobsen (2012), social presence presents the notion that effective learning happens if there is established support and prioritization to the emotional and personal well-being of students. This is attained if there is an evident sense of belonging and camaraderie with classmates and the instructor. Thus, the challenges brought about by the sudden shift from F2F to full-time online teaching-learning engagement can be overcome through a pedagogical approach that allows for optimum communication between and among the participants of online classes. In fact, in a study of Thompson, Vogler, and Shiu (2017), it was surmised that technological features, such as those provided in holistic Learning Management Systems (LMS) that enable real-time discussion and exchange of ideas among students, assisted effectively in creating a collaborative and cooperative atmosphere in an otherwise artificial online setting. Previous studies also showed that actual communication and interaction, like seeing the faces and hearing the voices of fellow students promote a greater sense of social presence, compared to the usual mediums such as chat boxes, discussion boards, viewing of pre-recorded learning videos, and other modes under teacher-centered instruction (Ice, Philips, & Wells, 2007).

In terms of confidence in the virtual teaching setting, UST JHS teachers perceived themselves as confident when it comes to addressing the dimensions under social presence. As shown in Table 4, the participants scored well on affective expression (5.37) and open communication (5.30), which implies that there are enough opportunities for meaningful engagement during synchronous sessions and that actual sharing of insights and provisions for opinion-based and personal responses make learning sessions more meaningful and purposefully engaging. This set of information mirrors the results from the studies of Thompson, Vogler, and Xiu (2017) and that of Kear (2010), wherein teachers stated that there is a more dynamic interaction among students when online tools integrated into the LMS (discussion boards, personal profile sharing, blogs, and wikis) are utilized. It is Group Cohesion, however, that scored the lowest (5.19), indicating a challenge in administering group activities to promote dialogue and create social interactions in the online setup.

Table 4. JHS Teachers' Perceived Confidence in Addressing Social Presence in Virtual Teaching

Affective Expression	5.37	0.71	C
Open Communication	5.30	0.78	C
Group Cohesion	5.19	0.84	C
Affective Expression	5.37	0.71	C

$\bar{x}$ = mean, SD = standard deviation, Q = Qualitative Description

The affective expression facet of the social presence is highest because of the strategies that the teachers employ: *asking the students how they are doing or feeling before beginning the class, ensuring a positive*

atmosphere in class by radiating a welcoming vibe, exuding an approachable personality, and creating a positive and encouraging communication channel. All these practices contributed to the high confidence in this specific aspect of the social presence, thus allowing for better opportunities for open communication. Likewise, the high affective expression may be correlated to open communication since these two dimensions and activities that fall under both are teacher-initiated: *offering opportunities for consultation, providing timely feedback, using different communication media, and giving reasonable considerations* allow for teachers to open and maintain communication channels, and interact meaningfully and purposefully with students (see Table 5).

These activities to increase learner interaction are supported and affirmed in the study of Gray and DiLoreto (2016). Since these activities do take a lot of time from faculty members, it creates this notion that social presence is high from the teachers' perspective (Dumford and Miller, 2018). Additionally, attempts to mimic social interaction between and among students through facilitation like *conducting debates, integrating social events and issues, and integrating real-life stories relatable to students* seem to further encourage open and sustained collaboration.

Table 5. Pedagogical Practices of JHS Teachers in Addressing the Social Presence

Open Communication	Facilitation	Group Cohesion	Affective Expression
● Offering opportunities for consultation ● Providing timely feedback ● Using different communication platforms ● Giving reasonable considerations	● Conducting debate ● Integrating social events and issues ● Integrating real-life stories where they can relate	● Using rotational groupings for PETA	● Happy disposition every first period ● Checking each other's well-being during sessions ● Having a friendly and fun aura ● Providing positive and encouraging communications/ messages

However, congruent to the low score in group cohesion (5.19) are the challenges that the teachers faced in the online setup particularly in trying to migrate the skills of collaboration and cooperation from the face-to-face or traditional classroom setup via group activities in its bid to create and maintain social presence. As shown in Table 6, teacher-respondents identified several challenges categorized under emerging themes that include Interaction/Communication, Providing Feedback, Limitation of Time, and Logistics. As stated by Dumford and Miller (2018), "traditional face-to-face environments seem more likely to promote collaborative learning, student-faculty interaction, effective teaching practices, quality of interactions, and discussions with diverse others." Designing a learning experience that puts forth student-centric activities really presents a problem in the online setup and this problem in promoting interaction is further heightened by the teachers' lack of knowledge of the students' backgrounds, limited time for interaction, and certain technical issues like policies on turning on

of device's cameras, connectivity issues, and device limitations. Adding to this dilemma in facilitating interaction through collaborative activities is the students' lack of willingness to cooperate with their group mates, and at times even the parents themselves when reached out to by the teachers are likewise difficult to communicate with. Interestingly, a study conducted by Martin et al. (2020) posits that conducting group projects to support peer learning is the most helpful instructor facilitator strategy. Similar studies, such as the work of Koh, Barbour, and Hill (2010) identified strategies for instructors to improve online group work that include assisting group formation, building a sense of connection, being involved in group processes, and evaluating group processes. Chang and Kang (2016) recommend instructors to split group work into individual portions, use peer evaluation, create guidelines for communication, and oversee group work processes. Instructors in the open-ended comments listed that group work supports peer learning and these studies confirm the findings.

Table 6. Perceived Challenges of JHS Teachers in Addressing the Social Presence

Interaction/Communication	Providing Feedback	Limitation of Time	Logistics
● Lack of background about the learners ● Having uncooperative students (muting their messenger, refusal to participate, nonresponsive) ● Having uncooperative parents ● Parents and students' limitations on time when it comes to communications	● Monitoring how students perform tasks in break-out sessions ● Providing timely feedback	● Limited time to socialize ● Time management (limited class hours)	● Not requiring students to turn on their cameras ● Internet connectivity issues ● Device limitations

Teachers' Perceived Confidence, Pedagogical Practices and Challenges in Addressing the Cognitive Presence

The very nature of the Community of Inquiry (CoI) theory lies in the spirit of collaboration and shared learning, for the purpose of developing critical thinking through reflective construction and founded on the notion that understanding stems from the context of relevant personal meaning. A strong educational experience is made possible by establishing a strong cognitive presence, wherein students can engage meaningfully with featured content. As emphasized by Garrison, Anderson, and Archer (2001), cognitive presence refers to the extent to which students are able generate meaning from given sets of topics, by making use of both residual and contextual knowledge, and through reflective analysis and active discourse. Garrison (2003) further added that cognitive presence can be systematically developed by (1) identifying a problem (triggering event), discussing, and putting together notions to explain the problem (exploration), clarifying and constructing meaning out of this exploratory discourse (integration), and finally applying meaning as a form of resolution to context-based situations (resolution). In such a framework, the role of the teacher is an essential component, from designing the type of online activities conducted, to the general course structure, the line of questioning utilized, and even the approach to learning supervision employed by the instructor.

As shown in Table 7, the teacher-respondents qualified themselves as confident in all dimensions covered under cognitive presence, with both Integration and Resolution (5.38) being perceived as dimensions where they are most confident to have addressed in the virtual teaching set-up. Integration refers to opportunities that students are able to put together new information to answer previous questions, construct explanations through personal analyses, and reflect on their own personal understanding in relation to concepts learned in class. Resolution, on the other hand, refers to the dimension wherein students already test, apply, or practice knowledge gained in class in personal or non-class related activities, as well as develop appreciation and value to lessons as far as its meaning and significance to real-life experiences are concerned. The teacher's high level of confidence for these two dimensions can be attributed to the nature of how the lessons have already progressed at this stage. These sub-categories under the CoI framework already involve more student-centered activities that emphasize or synthesize what has been previously learned.

Also at this point, the teacher has already taken a 'backseat' and is more focused on providing opportunities for application and self-determination, allowing students to evaluate their level of understanding and to reflect upon the significance and relevance of what they have learned. As stated in Garrison's Cognitive Presence and Critical Thinking (2017), these areas, other than the triggering event and exploration parts, representing the realm of cognitive presence are involved in "a process of inquiry that includes thinking, listening and expressing thoughts in the process of critical discourse." As such, students' active participation in creating and applying their own understanding can be considered as the desired result of genuine learning. Furthermore, Garrison (2017) stresses that cognitive presence "cannot be understood in isolation; it is a purposeful and collaborative process interdependent with teaching and social presence". This entails that learning episodes necessitating individual and collaborative participation serve as connectors that allow for the full cycle of the teaching-learning process.

Table 7. JHS Teachers' Perceived Confidence in Addressing Cognitive Presence in Virtual Teaching

Triggering Event	5.27	0.73	C
Exploration	5.29	0.76	C
Integration	5.38	0.72	C
Resolution	5.38	0.71	C

$\bar{x}$ = mean, SD = standard deviation, Q = Qualitative Description

As far as the two other dimensions - Triggering Event and Exploration are concerned, it is noted that the respondents still signified confidence as far as addressing Cognitive Presence is concerned. The scores (5.27 and 5.29 respectively) indicate that particular strategies used to develop these dimensions are deemed effective, although it could also be assumed that these are not regarded extensively since these are 'launching' learning episodes and allotted minimal portions in the overall teaching-learning process. As emphasized by Garrison (2016) in the Practical Inquiry model, much of the Cognitive Presence is established in the phases that allow for "private/reflective and shared/discourse experiences of a purposeful educational transaction." New ideas and perspectives are more distinctly manifested during the integration phase, while personal meaning and mutual understanding are primarily shown in the resolution phase.

Relative to the previously discussed notions, Table 8 shows that most practices that induce further critical thinking transpire during extensive discourse and purposeful exchange of ideas (Garrison, 2016). Consequently, these happen during lesson episodes that reflect the Exploration and integration dimensions of a virtual learning session. Among other responses, the teacher-respondents consistently stated practices that lean heavily on critical thinking, such as *application and formulation of practical PETAs and community-based outputs, integration of other disciplines in the lesson, and relating lessons to real life settings*. The same thing can be said about practices listed under Exploration. In fact, pedagogical practices, from strategies like *brainstorming, worksheets or review tests and sequential formative activities*; to the more complex *reflective situational analyses and critiquing of output or viewed/assigned material*; or even group-based activities such as *gamified learning, break-out grouping, or peer/small-group discussions;* are all reflective of how effective the learning transfer has been processed in the course of a lesson. Needless to say, the practices that were indicated under the Triggering Event and Resolution, although fewer compared to the other two dimensions, would still require a collaborative process of thinking and learning. At the onset and conclusion of a virtual teaching session, *the initial posing of questions and exemplification of real-life applications* (Triggering Event), and the eventual evaluative strategies like *mind-mapping and reflective or journal writing tasks* all involve thinking and personal assessment in deep and meaningful ways. Additionally, it was pointed out in the Practical Inquiry model that processes critical thinkers are engaged in are in no way unalterable, and that these are iterative in nature, which means that learners can revert back to the phases multiple times or in random order (Garrison, Anderson, and Archer, 2001).

Table 8. Pedagogical Practices of JHS Teachers in Addressing the Cognitive Presence

Triggering Event	Exploration	Integration	Resolution
● Posing questions in the beginning of the class ● Varied motivations in the beginning of the session ● Posting real-life applications in the beginning of the lesson	● Using picture collage and brainstorming ● Critiquing of the output ● Provision of online review tests and seat works ● Providing variety of assessment strategies ● Reflective situational analysis ● Provision of sequential formative activities ● Provision of worksheets that encourage critical thinking ● use of open-source software with varieties of tutorials and built-in activities ● Conducting peer/ small group discussions ● Student-facilitated sessions ● Break-out groups ● Using gamified learning activities	● Investigatory projects ● Practical PETAs ● Incorporation of timely issues in the test ● Integrating other disciplines in the lesson ● Relating lessons to real life setting ● Creating community-based outputs	● Use of mind mapping activity to synthesize lessons ● Reflection writing ● Journal writing

Nonetheless, strengthening the Cognitive Presence in an online set up does come with certain difficulties, especially in terms of its association to the promotion of Teacher Presence and Social Presence. As shown in Table 9, the teacher-respondents ascertained numerous challenges that would challenge the effectiveness of student engagement, facilitation of learning, and meaningful interaction. Consistent themes are related to student academic behavior and limitations under a virtual teaching-learning setup. For engagement, the perceived challenges were centered on students' learning efficacy and lack of focus, such as difficulty in following instructions, ensuring student presence (actual class involvement) and responding to formative and summative assessments. This perception is mirrored in the responses under Interaction, in which respondents stated student dishonesty, non-compliance, poor time management, and unresponsiveness (students and parents) as the primary challenges in addressing Cognitive Presence. As for the aspect of Facilitation, respondents pointed out that the current set up, where everything is done purely online, sets limitations in the delivery of lessons, curriculum coverage, actual applications of learned concepts, and conduct of assessment.

More than technical or facility issues, these challenges are based on the lack of physical and social interaction, a matter of meaningful sharing and shared learning culmination. The study of Kanuka and Garrison (2004) highlighted the concept of collaborative constructivism, explained as an associative process between a learner's private and internal learning nuances and the public element of interaction that culminates with meaningful discourse and shared knowledge. Unfortunately, this essential facet to overall learning has been removed entirely from the equation. Whether the issue is regarding conditions of the home; or the decreased subscription to self-regulation; or the general mental and social drive of learners affecting perception and perspective; these, directly and indirectly, were seen as barriers to fulfilling the ideal academic transaction between teachers and students (Adarkwah, 2021; Carter, et. al., 2020)

Table 9. Perceived Challenges of JHS Teachers in Addressing the Cognitive Presence

Engagement	Facilitation	Interaction
● Learners' difficulty in following instructions ● Only few students participate ● Students are not doing their formative assessments ● Only few students take formative assessments seriously ● Ensuring that learners are present during class ● Some students leave essay part unanswered	● Lack of variations in the delivery of lessons ● Challenges in speaking and communicating in Filipino language ● Difficulty in translating concepts in real life applications ● Limited coverage of lessons ● Limited time ● Determination of most essential learning competencies (CLE) ● Limited time to do alternative assessments	● Academic dishonesty ● Credibility of the works ● Poor time management of the students ● Noncompliance ● Unresponsive students and parents

Teachers' Recommendations in Improving the Practices

With the experiences of the teachers in the online instructional delivery vis-a-vis their pedagogical experiences and perceived challenges, Table 10 presents their recommendations and suggestions. These are themed into four areas in terms of (a) professional learning preferences; (b) consideration of teachers' and students' well-being; (c) consideration of some matters concerning school policies; and (d) improvement of online instruction.

Table 10. JHS Teachers Recommendations in Improving the Online Teaching Practices

Professional Learning	Teachers' and Students' Well-Being	School Policies	Improvement of Instruction
● Regular online relevant training workshops on online teaching (strategies and apps) ● Continue the sharing of best practices ● Trainings to support and assist seasoned teachers ● Workshop on respondus lockdown and item pooling ● Inclusion of video editing workshop	● Address teachers' and students' mental health ● Lessen the academic workloads ● More bonding moments/ kumustahan	● Parents orientation on navigating the platform, academic integrity and dealing with teachers ● Work on our communications (dissemination) ● Consistency of all instructional practices across all learning areas ● Consult teachers for essential and nonessential activities ● Eliminating conduct of meetings beyond office hours ● Require students to turn on their cameras ● Set specifications of gadgets as requirement ● Connectivity assistance to teachers	● Change the way we assess students to minimize cheating ● Assessment and attendance tracker ● Design module ● Include recitation in the grading system

Conclusion

This paper sought to explore the pedagogical practices and challenges of Junior High School teachers in online instruction using the CoI framework. Analyses of the quantitative and qualitative data using mixed methods yielded high confidence levels from the teachers in terms of the three presences, namely the Teaching Presence, Social Presence, and Cognitive Presence. Out of all the presences in the contextualized CoI Framework, teachers felt most confident in the Design and Organization under Teaching Presence, followed by Integration and Resolution under Cognitive Presence and Affective Expression under Social Presence. Notably, the mechanisms that the school have put in place like the Quarterly Instructional Schedule (QIS), the Weekly Instructional Schedule (WIS), and the Learners' Map (LM) are deemed to have contributed substantially to the

high confidence in the Design and Organization component in the Teaching Presence; the routinary activities and the positive disposition of the teachers likewise are highly considered as positive influences that resulted to high confidence in Social Presence, perceived to be achievable through the maximization of the LMS and the features of the video-conferencing platform used in online learning. Familiarity with the features of the school's LMS also contributed greatly to the processes and steps that the teachers undertook. This ensures that instruction is not impeded by this pandemic, therefore heightening teacher confidence as well.

However, despite the distinct high confidence in the practices under the CoI framework, noted challenges also surfaced: among these are technical and logistical problems, lack of interaction or engagement of students, time limits, and further utilization of other useful features of the LMS. Interestingly, some of these challenges are consistent with all the presences as well. Collectively, these are perceived as areas that require further attention, since these directly affect the overall quality of instruction and class interaction provided in the current virtual set-up.

Due to the continued onslaught of COVID-19, it may be imperative for Philippine schools, especially in the basic education sector, to continue delivering its educational services online. As mentioned by Bryson and Andres (2020), focus should shift towards "developing a new and transformational approach" in delivering instruction, as this COVID-19 pandemic may be here for good. Online-based instruction and learning should no longer be seen as a contingency, and instead be treated as a permanent fixture in education that requires regular review, recalibration, and re-assessment. Thus, an exploration on how schools could best proceed with online instruction using the CoI framework is a must as they continue conducting teaching and learning in this modality for the duration of this school year and the succeeding years to come. Equally important is to reflect on the various ways and means on how teaching may be further improved using the said framework as a foundational checklist, particularly in promoting authentic teaching and learning capable of addressing the academic, mental, and social needs of students.

Recommendations

The COVID-19 pandemic has brought about a wave of unprecedented changes with how teaching and learning transpire in the virtual classroom. As difficult as it has been for teachers and students to transition from the traditional F2F set up to a purely online environment, this has also provided opportunities to test and eventually implement innovative means to fully ensure the continuity of learning. While some of the aspects of virtual teaching are still moving incrementally along the educational learning curve, schools, to a certain extent, have already established purposeful approaches that allow for a more socially meaningful interaction and collaboration. In a sense, the context of online teaching and learning has become wider and deeper in scope despite the obvious limitations and restrictions that actual presence in the classroom afforded before.

The pedagogical shift reflected in UST Junior High School's Enhanced Virtual Mode (EVM) of education has gained further traction by utilizing the Community of Inquiry (COI) framework in assessing and programming its methods and practices. This study highlighted such gains, with teachers being able to determine the strengths

and weaknesses of the school's learning system in the lens of COI. Their perceived confidence towards establishing strong cognitive, teaching, and social presences during synchronous sessions provided an objective gauge as to how the school's EVM can be further enhanced and developed to be more suited to student needs beyond the usual academic aspect. Consequently, the teacher-respondents have come up with a set of recommendations that can be categorized to five general themes, subsumed within the collaborative and highly interactional context of COI.

First is in terms of Professional Learning. The respondents pointed out the need for regular training and retooling workshops, like maximizing the use of effective online assessment (Respondus Lockdown) or utilizing video editing tools in support of lesson enhancements, to help them keep up to date with new innovations, strategies, and applications. They also stated the importance of sharing best practices as an institutionalized effort, especially as a form of support and assistance to senior teachers.

Another recommendation is concerning the (1) general technical requirements of online learning, together with the more specific area of assessment and materials preparation. For the former, the teacher-respondents emphasized the need to establish clear-cut guidelines for the turning on of cameras during synchronous classes, as well as provisions regarding the required specifications for gadgets utilized to encourage full participation and engagement. The respondents likewise indicated the significance of establishing a support system to monitor teacher connectivity and provide immediate assistance in case needed. As for assessment and preparation of learning materials, the teacher-respondents suggested shifting to more authentic assessments or perhaps upgrading or utilizing special features in the LMS to minimize cheating during tests or exams, and establishing an assessment/attendance tracker for better monitoring. Additionally, it was suggested that modules be designed as a form of supplementary /primary material that can promote self-regulated and autonomous learning, and also to include recitation in the grading system, especially among language-based subjects.

The last set of recommendations focused on the implementation of school policies and the addressing the well-being of students and teachers. The teacher-respondents saw it necessary to revisit and review policies concerning the consistency of all instructional practices across all learning areas, the conduct of teacher consultation for essential and non-essential activities, and the limiting the conduct of meetings only within office hours. It was also part of the recommendation to work on how official communications are disseminated to the school's stakeholders and providing orientation to parents regarding topics such as effective navigation of the LMS platform, academic integrity, and proper conduct of parent-teacher conferences. Finally, on the aspect of teachers and students' well-being, the respondents encouraged the administration to spearhead the creation of a program that would prioritize mental health, review for possibly lessening further the current academic workloads, and provisions for non-formal/non-academic *kumustahan* or bonding sessions among teachers and students.

With all the perceived instructional dilemmas, practices raised by the teachers, it is also recommended that continuous and periodic evaluation of the new policies and practices be done as part of the instructional

supervision of the administration following the CoI framework and the mandated institutional expected teaching and learning outcomes.

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