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Online engagement during COVID-19: Role of agency on collaborative learning orientation and learning expectations

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Abstract

During the COVID-19 outbreak, students had to cope with succeeding in video-conferencing classes susceptible to technical problems like choppy audio, frozen screens and poor Internet connection, leading to interrupted delivery of facial expressions and eye-contact. For these reasons, agentic engagement during video-conferencing became critical for successful learning outcomes. This study explores the mediating effect agentic engagement has on collaborative language learning orientations (CLLO) within an EFL video-conferencing course to understand better how interactions influence academic learning expectations. A total of 329 (Male = 132, Female = 197) students were recruited from four South Korean universities to participate in this questionnaire study. Data analysis was carried out using the statistical software packages SPSS, and a series of data screening procedures were carried out. Findings revealed that collaborative language learning orientations were a statistically significant predictor of academic learning expectations, but this relationship was fully mediated when agentic engagement was added to the model. Students with a propensity for social language learning strategies believe they will succeed; however, this relationship is explained by their propensity to interact with the instructor when video-conferencing. An assortment of learning activities should be provided to support both collaborative and individual learning orientations for academic success. Students with collaborative learning tendencies and a propensity to actively engage the instructor during video conference classes are active participants in the eLearning context, possibly leading to positive course expectations.

KEYWORDS
agentic engagement, collaborative learning, computer-mediated communication, EFL, learning expectations

1 | INTRODUCTION

During the COVID-19 outbreak, students had to cope with succeeding in video-conferencing classes susceptible to technical problems like choppy audio, frozen screens and poor Internet connection, leading to interrupted delivery of facial expressions and eye-contact. For these reasons, agentic engagement during video-conferencing became critical for successful learning outcomes. Agentic engagement is related to the learners' positive involvement in

the teaching–learning process (Reeve & Tseng, 2011), which is persuaded by the related aspects and plays a substantial role in developing intrinsic motivation.

An abundance of research has focused on synchronous computer-mediated communication in language learning (de Oliveira & Esteve-González, 2020; Eslami & Kung, 2016; Kim, 2014; Lenkaitis, 2020). Synchronous computer-mediated communication (SCMC) refers to the online interactive transfer of data between two or more learners concurrently through a computer (Lee, 2002). SCMC with video-conferencing is

used to support education programs across the world when face-to-face classes were cancelled due to the COVID-19 crisis. Due to early virus outbreaks, South Korea was one of the first nations to transfer courses online, with many universities requiring professors to supplement brick-and-mortar classrooms with video-conferencing platforms. Students with a broad spectrum of social language learning strategies do well in face-to-face classes because learning strategies create more opportunities to use the target language (Oxford, 1999), but less is known about how such extravert learners (i.e., good social learning strategies) perform in SCMC video-conference courses. For second language (L2) communication courses, SCMC with video-conferencing was chosen in favour of one-way lecture videos because live communication with SCMC provided an opportunity for authentic language practice. However, popular video-conferencing software (e.g., Zoom, Skype and WebEx) only allows for one host at a time and prevents the instructor from observing more than one group of students. This restriction of simultaneous speakers emphasizes the importance of engaging the instructor and classmates.

Collaborative learning in the EFL context entails students working collectively in pairs or groups to achieve learning goals and help one other in the language learning process (Dillenbourg, 1999). Students with a collaborative language learning orientation (CLLO) prefer collaborative learning and do best when collaborating with one or more students in a learning situation (DeCapua & Wintergerst, 2005). Further, instructors are encouraged to design learning tasks conducive to collaborative learning, especially corrective feedback and communication (Zou et al., 2016).

In recent decades, research has confirmed that learner collaboration assists second language acquisition (SLA) (Lapkin et al., 2002; McDonough, 2004; Storch, 1998, 2004; Swain & Lapkin, 1998). Online collaborative learning plays a massive role in higher education practice worldwide (Kim & Ketenci, 2019). Research has reported that online collaborative learning facilitates a sense of community commitment and satisfaction (Chatterjee & Correia, 2020; Zhu, 2012). Further benefits associated with collaborative learning include multimodal accessibility (Ching & Hsu, 2013), interactive communication (Ishtaiwa & Aburezeq, 2015), and improvement in the learning process (Baker & Moyer, 2018). Several researchers have explored various assessment methods to measure learning outcomes through video-conference English courses in online collaborative learning environments. Gikandi (2020) believes that online formative assessment, using a more holistic, multifaceted instructional strategy, can measure various students' authentic artefacts reflected in real-life contexts. Kreijns et al. (2007) argue that learners' sense of sociability in a computer-supported collaborative learning environment can be measured through the facilitation of a meaningful social interplanetary with qualities as reliance and belonging of peers discussion. On the other hand, Delaney et al. (2019) argue that students need to be evaluated through synchronous and asynchronous online multimodal interactive discussion tools using text, audio and video posting to increase the quality of interaction.

Academic learning expectations (ALE) refer to the self-efficacy beliefs that a learner can successfully learn to accomplish a given learning task (Bong & Skaalvik, 2003) and can be described as confidence in a student's ability to achieve intended results in an academic situation (Bandura, 1997). Academic learning expectations are a strong predictor of academic achievement (Reeve & Tseng, 2011), yet the relationship between CLLO and ALE in the SCMC video-conferencing context is still unclear. This research suggests that the relationship between CLLO and ALE can be better understood by adding agentic engagement as a third mediating variable. Agentic engagement (AE) refers to proactive involvement in classroom settings that contribute to a beneficial learning environment (Reeve, 2013) and is defined as a 'students' constructive contribution into the flow of the instruction they receive' (Reeve & Tseng, 2011, p. 258). AE revealed a positive correlation with student characteristics, including autonomous motivation, cognitive engagement and academic achievement (Reeve, 2013).

Furthermore, Reeve and Tseng (2011) found that AE mediated the relationship between motivation and academic attainment (i.e., end of semester scores). Success in an SCMC video-conferencing classroom may depend on one's ability to ask clarifying questions, regardless of whether the learner has a propensity for social language learning strategies or individual self-study strategies. With the addition of agentic engagement as a mediating variable, we can attain a better understanding of how CLLO affects ALE by breaking up the total influence (Path c') into direct (Path c) and indirect effects (Paths a and b). Figure 1 illustrates the mediation model.

1.1 | Study hypotheses

Hypothesis 1. Levels of collaborative language learning orientation positively correlate with academic learning expectations in an EFL video-conferencing class.

Hypothesis 2. Levels of collaborative language learning orientation are positively correlated with agentic engagement.

Hypothesis 3. Levels of agentic engagement are positively correlated with academic learning expectations in an EFL video-conferencing class.
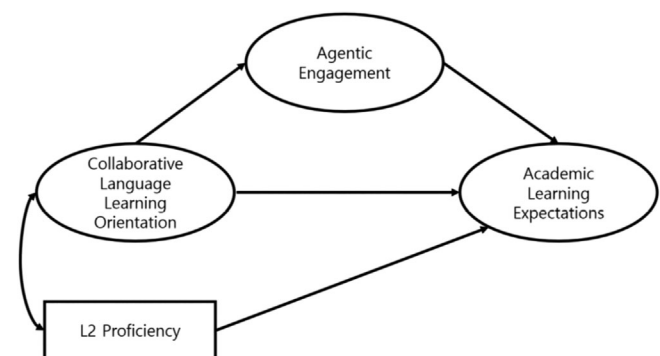

FIGURE 1 Proposed mediation model

Hypothesis 4. Agentic engagement mediates the relationship between collaborative language learning orientation and academic learning expectations. [Corrections made on 7 June 2021, after first online publication: In Hypothesis 4, 'agentic engagement' has been corrected to 'academic learning expectations', in this version.]

2 | THE LITERATURE REVIEW

Collaborative language learning orientation is defined here as a student's propensity to study with others. The relationship between learning orientation and performance is well established in marketing (Baker & Sinkula, 1999) but much less so in second language acquisition (SLA) research, which has been overshadowed by language learning styles (Reid, 1995) and language learning strategy (Oxford, 1990) research.

Parallels have been drawn among language learning strategies, styles and orientations (Oxford et al., 1991). Learning strategies refer to how students learn and remember information and are the techniques students use when solving problems, approaching an assignment, and preparing for a test (DeCapua & Wintergerst, 2005). Language learning strategies can be learned, taught, and consciously applied to learning situations. For example, learning strategies are actions students utilize to learn, and learning styles refer to the wide-ranging tactics students use in acquiring a new language. Learning styles are a learner's preferred ways of learning, typically articulated as adjectives (e.g., auditory, visual) and part of their personality. There have been several studies investigating language learning styles (Hsu, 2017; Islam, 2020; Sahragard et al., 2016) and collaborative e-learning activity preferences (e.g., Afacan-Adanır et al., 2020; Trespalacios & Uribe-Flórez, 2020). This previous research can only be considered the first step towards a more profound understanding of the relationship between collaborative language learning orientations and academic learning expectations in video-conference English courses.

Learning orientations encompass students' attitudes and aims within a course of study and represent the relationship between the learner and the learning atmosphere (Beaty et al., 1997). Learning orientation contrasts with strategies and styles because orientation considers learning factors beyond the learner, including channels of communication learners navigate. In language learning strategy theory (Oxford, 2013), learners play an agentive role in initiating their learning process by utilizing interactive tools that enable them to improve communicative competence. Specifically, language learning strategies have critical significance for second language learners because they advocate for self-exportation and self-assessment; both develop communicative competencies (Skehan, 1991). A large number of existing studies in the extant literature have examined factors influencing students' choice of learning strategies. Most of these influences are related to students' language proficiency (Green & Oxford, 1995), engagement (Oxford & Nyikos, 1989), and active practices in the educational setting (Gass & Mackey, 2000).

A similar pattern of reviewed studies (Jeong, 2019; McDonough et al., 2019) showed that the social networking platform in online collaborative English learning plays a substantial role in shaping participants' positive attitudes and performances. EFL online collaborative activities also have affirmative effects on raising learners' affective and metacognitive skills, such as self-awareness and self-regulation (Jeong, 2019), learner motivation, learner agentive engagement (Montenegro, 2019; Reeve, 2013; Reeve & Tseng, 2011) and classroom engagement (McDonough et al., 2019; Swain & Lapkin, 2001). Recommendations from these studies suggest a deliberate involvement of effective instructional designs for encouraging learner motivation and classroom collaboration in EFL education.

Agentic engagement represents a reciprocal communication initiated by the student with the course instructor and classmates (Moore & Kearsley, 1996). This form of interaction is considered valuable by both the learners and the instructors, as it directs SCMC and includes asking clarification questions during the lecture. An essential result of agentic engagement is immediate feedback. Instructor feedback during class enables the students and the instructors to ensure students' intellectual capacity of course materials and receives information on their presentation in delivering course content.

A key area to improve learning expectations includes increasing communication frequency between the students and the instructors (Dennen et al., 2007). Immediate feedback from instructors is vital to students' attainment in online courses (Anderson, 2003). EFL learners unwilling to collaborate are less likely to receive instant feedback during SCMC because they are less likely to engage the instructor (Murphy et al., 2017). Lack of engagement in classroom settings produces feelings of isolation and dissatisfaction (Yukselturk & Yildirim, 2008). A study by Yuen et al. (2009) found that learners in technology-enhanced learning environments reported more course gratification when support from instructors matched their expectations of instructor–student interactions. Agentic engagement increases the instructor's presence, which produces a cognitive presence that leads to higher-level learning (Yuen et al., 2009).

Many studies on collaborative language learning have relied on implementing video-conferencing technology in higher education, which has significantly increased in recent years (Michel & Cappellini, 2019; Rassaei, 2017). Students' perceptions and attitudes towards video-conferencing courses are wide-ranging but mostly optimistic. In Altıner's (2015) study, undergraduate students' perceptions of video-conference-based English courses in Turkey were explored. The results revealed that the majority of the participants reported negative attitudes towards English-conducted courses via video-conferencing. On the contrary, a study by Lee et al. (2018) examined the impacts of video-conference classrooms on learners' insights towards English in Japanese classrooms. The results revealed that 81% of the participants had positive perceptions of English learning. Lee et al.'s study's findings are in line with previous recent studies (e.g., Ding, 2020; Robertson & Piotrowski, 2019) in which video-conference courses have been confirmed to be beneficial. One practical implication of video-conference incorporation is through project-based learning using video-conferencing in EFL courses. In such a setting, learners are allowed to be fully engaged in collaborative learning strategies

where learners are authoritative in selecting materials, evaluating and creating productive projects.

The propulsion of synchronous computer-mediated communication in the era of COVID-19 places pressures on educational researchers to identify successful student characteristics in video-conferencing classes. Agentic engagement stimulates interest and motivation and helps students apply their learning (Madland & Richards, 2016). There is a dearth of literature explaining how agentic engagement on the part of the learner similarly enhances learning outcomes. Student–teacher interaction in SCMC video-conferencing classes are costly, and the investment of time upsurges with rises in the number of students (Anderson, 2003).

3 | METHOD

This study aims to examine the relationship between collaborative language learning orientation and academic learning expectations within the context of EFL video-conference classes. The agentic engagement was added as a mediating variable to understand better how learners' willingness to speak up during class explains learning expectations.

3.1 | Participants

A total of 329 (Male = 132, Female = 197) students were recruited from four South Korean universities (5 instructors and 12 classes) to participate in this questionnaire study. Participants came from various academic majors, such as computer science, construction machinery and equipment engineering, nursing, public administration, English language, global business, business economics and law. All participating students attended four or more video-conference courses using Zoom due to the COVID-19 outbreak of 2020. Specifically, 206 students attended one online English video-conference course, 79 attended two online English video-conference courses, and 52 students attended three or more online English video-conference courses.

Second language (L2) proficiency was measured from three sources: Standardized scores from the Test of English for International Communication (TOEIC; $M = 470$ out of 990, $SD = 183$), self-reported speaking skills ranging from 1 (poor) to 10 (high) ($M = 4.23$, $SD = 2.00$) and self-reported English writing skills ranging from 1 (poor) to 10 (high) ($M = 4.22$, $SD = 2.07$). A self-reported evaluation of second language proficiency has shown high validity in previous EFL/ESL research (Kao & Reynolds, 2017; Wharton, 2000) and was considered an appropriate measure to triangulate L2 proficiency in the current study.

3.2 | Instrumentation

The survey was administered 6 weeks after online classes became mandatory throughout South Korean universities. Three scales from an online questionnaire were used to explore the study hypotheses. The CLLO items (items 1 to 7) were taken from DeCapua and Wintergerst's (2005) Learning Styles Indicator (LSI) and consisted of statements pertaining to group activity and individual activity learning orientations. Group activity orientation items included *I enjoy working on English assignments with two or three classmates, I learn English best when I work in a group, I prefer to study English with others*, and *when studying English, I learn more when I study with a group*. The three items from the individual activity orientation scale were reverse scored and included *When I study English alone* (R), *I remember things better, When studying English* (R), *I prefer to work by myself*, and *When I study English, I prefer to study alone* (R). Items on the CLLO scale were translated into Korean by two professional Korean translators with graduate degree in translation studies.

Items from the agentic engagement scale were taken from the Korean version of Bong et al.'s (2012) Student Motivation in the Learning Environment Scales (SMILES). These items measure the extent to which students can make a substantial contribution in a classroom situation (Reeve & Tseng, 2011) and included *I let the teacher know what I need and what I want, During class, I express my preferences and opinions, I will ask the teacher for anything I need in the class, During class, I ask questions that help my learning*, and *I let the teacher know what I am interested in*.

Items from the academic learning expectations in EFL video-conference classes were modified from the Korean version of Bong and Skaalvik's (2003) academic self-efficacy for learning scale and refer to the academic achievement students expect when participating in their EFL video-conference course. These items included *I am confident that I am learning in the English video-conference class, I will do well in my English video-conference class, I can tell what is essential in my English video-conference class*, and *I can easily understand what I am learning in my English video-conference class*. Respondents were asked to respond using a 5-point interval scale, with one denoting strong disagreement and five as strongly agreeing with the statements.

3.3 | Procedures: EFL video-conference class

Video-conferencing implies using a telephone with a video display for online group or organizational meetings rather than offline meetings. Synchronous computer-mediated communication with video-conferencing differs from asynchronous blended, fully online, or flipped classes because SCMC video-conference communication is live, and students should interact with other students the instructor. With video-conferencing, eye contact plays a significant role in perceived attention, conversational turn-taking, and other features of group communication (Vertegaal & Ding, 2002).

Zoom was used as the video-conferencing platform for students in the current study. Figure 2 offers an illustration of what the student sees during a Zoom class. It provides video-telephony and online chat services for teleconferencing and distance education. Zoom was chosen because of the option to split conferences into separate concurrent sessions, making it a popular choice among the recruited EFL
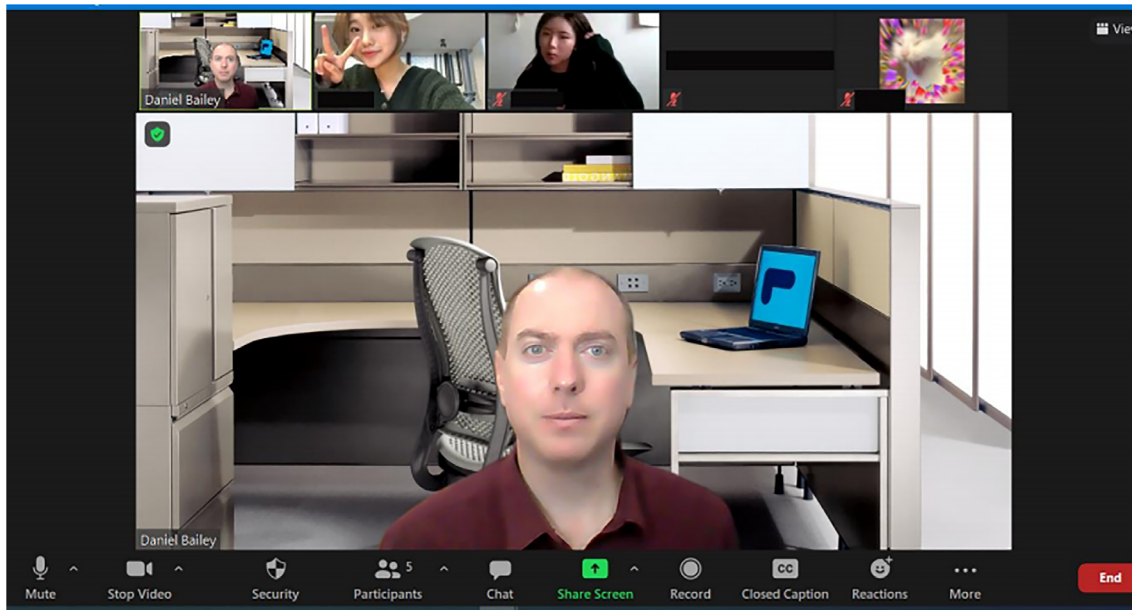
FIGURE 2 Example zoom class [Colour figure can be viewed at wileyonlinelibrary.com]

instructors. Simultaneous ongoing sessions with Zoom are referred to as break-out-rooms, and this feature allows for screen sharing and students to talk with one another privately. For the EFL video-conferencing classes, a combination of group and class break-out room sessions were the main EFL activity for speaking practice. For each class, the instructors spent 20–30 min introducing a speaking activity, and the remainder of the time was spent in partner or group activities that occurred within Zoom break-out rooms.

3.4 | Data screening and analysis

Data analysis was carried out using the statistical software packages SPSS (version 25.0). A series of data screening procedures were carried out. Initially, six incomplete surveys were removed. Next, three linear regressions of items for each scale were used to generate Cook's distance and Mahalanobis distance values to look for outliers in which 11 existed and were consequently removed, leaving 329 total respondents. Normal distributions were detected for the indicators of the latent factors concerning kurtosis and skewness. No kurtosis value was outside the range of -2 to $+2$, indicating acceptable levels of normal univariate distribution (George & Mallery, 2010). To test for multicollinearity, the study next examined variable inflation factors on the study variables and observed no VIF greater than two, which is far less than the threshold of 10. Once outliers were removed, mean scores and Pearson correlations of the study variables were measured. Finally, values were standardized, and a series of regression analyses were run according to the guidelines of Baron and Kenny (1986) to test for mediation and the various relationships among collaborative language learning orientation, agentic engagement and academic learning expectations in EFL video-conferencing classes.

4 | RESULTS

The current study investigated the mediating effect agentic engagement has on the relationship between collaborative language learning orientation and academic learning expectations in video-conference classrooms. Initially, a three-factor correlated model was used to validate the three variables of interest (i.e., collaborative language learning orientation, agentic engagement and academic learning expectations) with L2 proficiency added to the model as a confounding variable.

Table 1 provides detailed results and Pearson correlation findings for the variables of interest. While all correlations for L2 proficiency, CLLO, AE and ALE were statistically significant ($p < 0.001^{**}$), no r value greater than 0.85 was observed, indicating discriminant validity among the variables of interest. Students prone to collaborative language learning orientation shared a positive relationship with academic learning expectations and L2 proficiency, which is also in line with previous literature (Green & Oxford, 1995; Oxford, 1990). While AE showed a moderate correlation with CLLO and L2 proficiency, the highest correlation among the study variables was between AE and ALE ($r = 0.634$, $p < 0.001$), indicating students' willingness to ask questions to the instructorexpect to do well in the course. Mean scores for the study variables fell close to the median value of three for CLLO, AE and ALE. A mean score of 4.32 ($SD = 1.76$) was observed for L2 proficiency, slightly below the median value of five. Gender has shown mixed results in past studies that investigated language learning strategies (Green & Oxford, 1995); no difference was observed here between gender and collaborative language learning orientations. Students with higher L2 proficiency expected to do well within the video-conferencing classes ($r = 0.506$, $p < 0.001^{**}$), supporting past literature that has found a strong positive correlation

TABLE 1 Descriptive statistics and Pearson correlation of study variables

	Gender	L2 proficiency	CLLO	AE	ALE
Mean	1.60	4.32	3.03	2.97	2.96
SD	0.49	1.76	0.43	0.83	0.81
N	329	329	329	329	329
Gender	1				
L2 proficiency	−0.047	1			
CLLO	0.032	0.356**	1		
AE	0.047	0.353**	0.380**	1	
ALE	0.015	0.506**	0.353**	0.634**	1

Abbreviations: AE, agentic engagement; ALE, academic learning expectations; CLLO, collaborative language learning orientation; L2 Prof., second language proficiency.

**p < 0.001.

TABLE 2 The composite reliability and Cronbach's alpha extracted

Construct	Item	Factor loading	Cronbach's alpha	Composite reliability (CR) (above 0.6)	Average variance extracted (AVE) (above 0.5)
Collaborative language learning orientation	CLLO1	0.764	0.924	0.927	0.650
	CLLO2	0.784			
	CLLO3	0.807			
	CLLO4	0.866			
	CLLO5 (R)	0.815			
	CLLO6 (R)	0.809			
	CLLO7 (R)	0.791			
Agentic engagement	AE1	0.732	0.884	0.851	0.540
	AE2	0.757			
	AE3	0.601			
	AE4	0.770			
	AE5	0.802			
Academic learning expectation	ALE1	0.731	0.906	0.868	0.570
	ALE2	0.736			
	ALE3	0.682			
	ALE4	0.820			
	ALE5	0.798			

between L2 proficiency and academic EFL performance (Lee & Schallert, 1997; Taguchi, 2011).

Before testing the mediation models, the study needed to substantiate the measurement model of latent constructs for unidimensionality, validity and reliability. Exploratory factor analysis (EFA) was one of the statistical methods used in this study. Factors for the components were extracted through the maximum-likelihood method with varimax rotation. Unidimensionality was achieved as the factor loading for all items was above 0.60. The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy was 0.901, above the recommended value of 0.6, and Bartlett's test of sphericity was significant $[c^2 (136) = 4044.67, p < 0.001]$.

No commonality was observed below 0.50, and the Cronbach's alpha values reached the minimum value of 0.7 (Fornell & Larcker, 1981).

Table 2 displays composite reliability and Cronbach's alpha extracted. The study proceeded to measure the model validity using CFA. Composite reliability (CR), average variance extracted (AVE) and Cronbach's alpha values were calculated to address the convergent validity measures (Table 2). All AVE values were at or above the recommended value of 0.50. Convergent validity was achieved as the value of AVE met the minimum value of 0.5 (Fornell & Larcker, 1981). All CR values were above the recommended 0.70 value.

The initial data computation also revealed that the data demonstrated homogeneity of variance and met the assumptions of linearity, indicating requirements for CFA were satisfied.

Table 3 displays findings for the regression equations used in this study's mediation analysis. Variables of interest represented in the mediation model were standardized. To control for variation explained

TABLE 3 Mediation model

	Equation 1	Equation 2	Equation 3
	ALE Path c	AE Path a	ALE Path c' and b
CLLO	0.198**	0.291**	0.050
AE	—	—	0.505**
L2 proficiency	0.436**	0.249**	0.310**
Constant (t)	3.597	2.572	2.597
F value	31.195	40.37	106.15
Adjusted r^2	0.286	0.194	0.490
N	329	329	329

**p < 0.01.
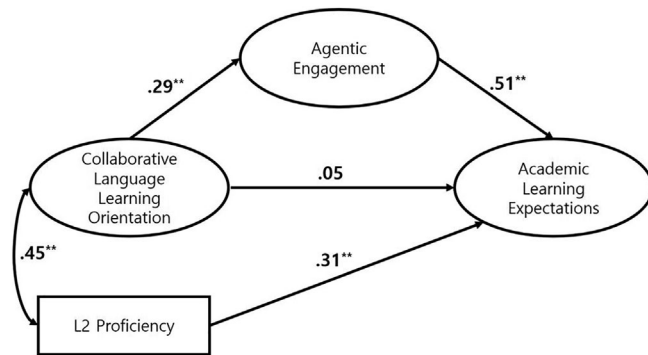
FIGURE 3 Results for mediation model

by content knowledge, L2 proficiency was added to path c and c' as a confounding variable. The *F* values are statistically significant in all three equations ($p < 0.01$), with adjusted r^2 values of 0.286, 0.194 and 0.490 for models one, two and three, respectively. These values indicate that the equation used as a part of this research is statistically significant and explains variation in the data set.

The first model represents equation one and shows that higher levels of CLLO are associated positively with ALE scores, and this result supports the idea that increasing the opportunity for students to work together when learning a second language will have a positive influence on learning outcomes when participating in an EFL video-conference class. The relationship between variables in model one was statistically significant ($p < 0.01$), and therefore satisfied Baron and Kenny's (1986) first criterion for mediation.

The second model represents equation two and shows that students' agentic engagement correlated with levels of CLLO. This suggests that increasing the opportunity to study a second language in groups will increase the frequency in which students take the initiative to interact with their language instructor. The path is significant and therefore satisfies the second criterion for mediation. The first two models provide strong evidence for the importance of CLLO in learning outcomes.

Two main findings of interest are apparent in the model. First, students' level of CLLO is positively correlated with their levels of agentic engagement ($p < 0.01$), which is shown in path b (Figure 3). The greater the students' agentic engagement, the higher their

academic learning expectations. In this case, the third indicator for mediation was satisfied. The second finding of interest is that, when controlling for agentic engagement, the relationship between CLLO and ALE vanishes ($p > 0.05$). This is called complete mediation and satisfies the final criterion for mediation. When a model is completely mediated, the addition of the mediation variable (path c) completely removes the relationship between the independent and dependent variables. These three models and four paths give strong evidence of a mediation effect (path c'), indicating that the path between CLLO and ALE is non-existent. Instead, the relationship between collaborative language learning orientation, and to an extent, social learning strategies is best understood by the learners' willingness to express themselves outwardly even with figures of authority (i.e., language instructor).

5 | DISCUSSION

This section summarizes the results and contributions made regarding the relationship between collaborative language learning orientations and academic learning expectations in video-conference courses. Further, this section explains the mediation effect caused by agentic engagement on the relationship between CLLO and academic learning expectation. As mentioned earlier, the present study confirmed positive perceptions held by EFL students towards online collaboration. Students holding collaborative language learning orientations believe they will perform better than those who prefer to study EFL alone when attending EFL video-conference classes. In other words, the levels of CLLO are positively correlated with academic learning expectations within SCMC video-conference EFL classes. This result ties in well with previous studies on the participants' positive attitudes and performances in interactive social platforms and online collaborative English learning (de Oliveira & Esteve-González, 2020; Eslami & Kung, 2016; Jeong, 2019; Kim, 2014; Lenkaitis, 2020; McDonough et al., 2019).

The mediating effect agentic engagement has on collaborative language learning orientation and academic learning expectations highlights a central argument in which instructors' involvement in planning an effective synchronous computer-mediated communication instructional design is essential for supporting learner engagement in the collaborative EFL classroom (Aelterman et al., 2019). To this end, students who preferred to collaborate when learning a language were more likely to engage with the instructor during class, and this was apparent from the increasing levels of CLLO positively correlating with agentic engagement. This positive correlation between CLLO and AE accords with findings reported in extant literature in which heightened student engagement in SCMC video-conferencing courses leads to an increase in autonomous learning skills (Edwards et al., 2019; Iamudom & Tangkiengsirisin, 2020; Ueki & Takeuchi, 2013), where learners can self-assess their input, seek out corrective feedback, and create authentic and meaningful tasks (Revere & Kovach, 2011).

The current study also showed that benefits for supporting collaborative language learning orientations extend beyond raising learners' social learning strategies (DeCapua & Wintergerst, 2005) to significantly

increasing students' learning performances. A wide variety of language learning strategies are essential for supporting self-regulated language learners (Oxford, 1990), including social strategies made possible through instructor–student interaction, which are relevant to learning expectations in SCMC video-conferencing courses. Consequently, the teachers' commitment to guidance, continuous support, and feedback in digital learning environments strongly affect the fostering of CLLO and consequential increased learning expectation.

Agentic engagement aids in explaining why students with CLLO think they will do well in SCMC video-conferencing classes; however, it is critical to understand that once added to the mediation model, CLLO was not relevant to perceived learning expectations when considering agentic engagement. The applicability of these new results is based on the premises of Oxford's (1999) LLS theory, where learners act as an agentive role in reconnoitring their learning process by employing interactive tools that permit them to cultivate communicative competence. The findings of this study reveal that collaborative learning can lead to success in autonomous learning, where students are authoritative and agentive of their learning development.

Even though we did not replicate earlier studies, our results suggest that the propensity to communicate with the instructor (i.e., AE) clarifies the academic learning beliefs in an EFL video-conference class (full mediation). Students who interact with the instructor believe they will do well in EFL video-conference classes. Simply put, the levels of agentic engagement are positively correlated with ALE within video-conference EFL classes. Also, the effect of CLLO on ALE within video-conference EFL classes is mediated by the AE. A similar conclusion was reached by previous studies that are concerned with agentic engagement and academic achievement (Reeve & Tseng, 2011). The present study conceptualizes AE as a form of proactive engagement (Luo et al., 2019) that is perceived through students' investments in online collaborative learning. Montenegro (2019) argues that 'agentic engagement is still a new concept that needs further research, especially in large learning settings at a university level' (p. 300); thus, this study adds innovative stances and constructivist-based online learning opportunities to the limited literature on agentic engagement in collaborative online learning using video-synchronous communication. It also provides accretions regarding transformative online learning that includes improving learners' higher-level thinking, self-reliance, communication, management skills, increased student–faculty interaction, increased student retention, and self-confidence and accountability.

Implications for educators, trainers and policymakers include promoting collaboration in language learning to foster constructive contribution to learners' agentic engagement and provide a proactive and positive pathway for learners. For pedagogical implications, SCMC with video-conferencing needs to offer students an opportunity to interact with instructors and each other through break-out rooms (e.g., subconference rooms and online mind-mapping tools). Further, EFL teachers are recommended to allow students the opportunity to host video-conference activities (e.g., presentations, gamification activity and quizzes), allowing learners to develop agency in the class.

A variety of learning activities should support collaborative and individual learning orientations for academic success.

Furthermore, students' learning styles can be met by delivering modality in SCMC learning environments (Ishtaiwa & Aburezeq, 2015; Poirier & Ally, 2020; Revere & Kovach, 2011). For example, instructors can implement online collaborative tools such as video-conference English courses that incorporate Google Docs, conceptboards, Wikis, and discussion boards to empower multigenre collaboration among peers. However, students' preparation and attitudes, both positive and negative, towards using emerging and existing technological tools should be taken into consideration (Edmunds et al., 2012; Yeh & Chen, 2019). Farid (2014) claims that 'e-learning readiness is a multidimensional construct that generally refers to computer Internet self-efficacy, self-direction, motivation, interaction and attitude' (p. 380). Thus, students need to be oriented to learn how to be autonomous learners in seeking information, assessing the content, relating it, and generating meaningful outcomes.

6 | CONCLUSION

Through survey analysis of students who contributed to formal SCMC video-conferencing EFL courses in Korea, this study identified relationships among collaborative language learning orientation, agentic engagement and academic learning expectations, as well as the mediation effect agentic engagement has on collaborative language learning orientation and academic learning expectations. The relationships were all positively correlated, and agentic engagement was found to be a mediating variable between collaborative language learning orientation and academic learning expectations. The results show the importance of engaging others in the classes, especially the instructor, to obtain the best learning outcome in video-conferencing classes. The goal of an EFL communication course is to foster an opportunity for learners to practice authentic English, and student–instructor interactions appear to be a key factor for positive learning beliefs in the online video-conferencing context.

Although relationships were found that can be helpful in the plan and implementation of EFL video-conferencing classes, there are some limitations. Future research should explore the exact types of student–instructor engagement common in video-conferencing courses. Agentic engagement is a predictor of academic performance in other academic disciplines, so future research may also wish to explore the mediating effect of agentic engagement in non-EFL settings. Lastly, future research should carry out interviews and observation when reporting student perceptions and behaviours towards the variables of interest. This study's replication should focus on how other student characteristics relate to academic outcomes in the video-conference context and how these variables relate to engagement and learning expectations.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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DATA AVAILABILITY STATEMENT

The data described in this article is openly available upon request.

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