

THE PRESENT STATE OF ONLINE TEACHING OF GENERAL EDUCATION COURSES IN TERMS OF INSTRUCTORS' AND STUDENTS' EXPERIENCES, NEEDS, AND CHALLENGES

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Abstract: *This study explores both teachers' and students' perceptions regarding the teaching and learning of general education (GE) courses in an online environment, where activities such as pair work, group work, and discussion frequently feature. These activities typically necessitate a high level of interaction during class time. This presents an intriguing environment for studying both teachers' and learners' experiences due to the abrupt switch to online education in recent years. The participants included 10 Thai teachers of GE courses and 431 Thai and international undergraduates enrolled in the GE courses and taught via an online platform. Online questionnaires and interviews were used to obtain participants' perceptions of both instructors' and students' experiences regarding online learning, particularly in terms of communication difficulties and potential intercultural communication difficulties. The data obtained from the online questionnaire was analyzed using descriptive statistics. The frequency count and the percentage were used for calculating and thematizing the numeric data. Interview data was transcribed, analyzed, and reported based on themes. Key quotes from the participants' responses were collated and presented in a narrative. The findings revealed the students' and the lecturers' perceptions of the benefits of online teaching, challenges, and their future needs.*

Keywords: *Online communication, Online communication skills, Intercultural communication, Instructors' and students' experiences, Online teaching*

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Introduction

Communicating with students and encouraging their interaction with one another in an online environment can present challenges for instructors, particularly during the first few years of online teaching and learning implementation. The inability to see students during online classes because they have their cameras turned off is one of the many obstacles instructors face when teaching online classes around the world (Dişlen Dağgöl & İşpınar 2023; Castelli & Sarvary, 2021). With the camera turned off in an online setting, instructors see nothing but only hear when students speak, whereas in a face-to-face setting, teachers have the advantage of connecting with and communicating with their students through the use of body language and facial expressions (Alawamleh et al., 2020).

Several studies (Dişlen Dağgöl & İşpınar, 2023; Pansa et al., 2022; Boonmoh et al., 2021; Atmojo & Nugroho, 2020) indicate that the primary problem with online learning is a lack of student participation and minimal or no interaction between teachers and students. This problem, along with the issue of students not turning on cameras presents a further problem as body language aids students in communicating with one another and in the interpretation of other people's moods and emotions. Furthermore, body language may help students feel more at ease, develop trust, and connect with others. Apart from the common communication issues that might emerge in an online learning setting, a classroom with students from many nations and cultural backgrounds can pose an additional problem. Language difficulties, nonverbal misinterpretations, and a lack of intercultural awareness can all contribute to difficulties (Jhaiyanuntana & Nomnian, 2020).

Intercultural communication is concerned with cultural sensitivity, knowledge, and comprehension of cultural differences (Deardorff, 2004). To develop intercultural competency in students, it should be prioritized and taught, particularly in online learning environments where students come from a variety of nations. Ultimately, assisting students in developing intercultural competence will enable them to engage and communicate successfully in diverse cultural and linguistic environments. Previous research (Jhaiyanuntana & Nomnian, 2020; Banjongjit & Boonmoh 2018; Cheewasukthaworn & Suwanarak, 2017; Grobella 2015) has addressed the importance of teachers integrating the concept of intercultural communication into EFL classrooms and the importance of (Thai) students developing a positive attitude toward linguistic and cultural diversity in order to develop the necessary intercultural knowledge and skills for interacting appropriately and effectively with students from both similar and diverse cultures.

A major factor in shifting education online has been COVID-19. Outside of China, Thailand was the first country to report a COVID-19 infection, in

Bangkok on January 13, 2020 (Intawong et al., 2021). In Thailand, the need for education reform skyrocketed in response to the outbreak. In July 2020, Blended Learning (BL), which consists of online and on-site learning, was promoted to meet the technology integration needs of Thailand (SEAMEO Regional Centre for Higher Education and Development [SEAMEO RIHED], 2021). Subsequently, COVID-19 cases rose rapidly in Thailand (Charoensuthipan, 2021). Hence, students had no choice but to study at home. Online learning has had an enormous impact on both instructors and students and frequently featured in discussions of the direction of education during the pandemic (Boonmoh et al., 2022). In the wider context, online learning was implemented in many other countries, such as Indonesia (Laksana, 2020), Jordan (Al-Salman & Haider, 2021), and Japan (Nae, 2020). The pandemic was an abrupt change for higher education in diverse regions of the world, including Asia. Jiang et al. (2021) reported that both students and instructors in the Asia Pacific region had no choice but to follow the national policies to implement online teaching. Jiang et al. (2021) investigated students' depression, anxiety, and stress levels in four countries: Malaysia, Indonesia, Thailand, and China. Due to the abrupt change, students in those four Asia Pacific countries reported heightened anxiety, depression, and stress when studying online. Focusing on Thailand, many universities rigorously implemented online teaching and learning from 2019 to 2021 (Boonmoh et al., 2021); however, some Thai institutions decided to shift from online teaching and learning to onsite teaching and learning when the COVID-19 situation was less severe. Consequently, during the post-COVID-19 era, there have been continuous changes toward onsite, online, or hybrid classrooms in Thailand (Poungjinda & Pathak, 2022).

Communication between teachers and students has the potential to enhance the learning experience and foster a healthy learning environment (Jhaiyanuntana & Nomnian, 2020; Banjongjit & Boonmoh, 2018; Cheewasukthaworn & Suwanarak, 2017; Grobella, 2015). Shifting from traditional teaching to online classrooms demands students and lecturers to communicate online (Renu, 2021). However, teachers and students still face challenges with online communication when studying and teaching online during and following the COVID-19 pandemic, such as lack of interaction, engagement, nonverbal language, communication, and intercultural awareness (Pansa et al., 2022; Boonmoh et al., 2021; Atmojo & Nugroho, 2020). Thus, it is critical to conduct this research study to avoid potential problems vis-à-vis online communication skills and intercultural communication and to ensure that online teaching runs smoothly.

Understanding the communication difficulties associated with online contexts will help teachers in determining the most successful methods for creating timely and appropriate communication and for interacting with their students (Alawamleh et al., 2020). This research focuses on examining the present state

of online teaching and learning, instructors' and students' experiences, together with problems when teaching and learning online. The results obtained can be used to design a training program for undergraduate students to improve their online communication abilities for future use in careers.

Research Questions

This study aimed to answer the following research questions: 1. What are instructors' and students' perceptions of online teaching in online general education courses? and 2. What are instructors' and students' needs for further workshops and training for online communication skills for studying online?

Literature Review

To understand how students and instructors performed in online general courses, a literature review including previous empirical studies was performed.

Students' and instructors' perceptions of online learning

There is a growing interest in optimizing online learning to best deliver knowledge to learners during and immediately after the COVID-19 crisis (Renu, 2021). In education, during the pandemic, most schools and universities worldwide changed from conventional face-to-face instruction to emergency online learning. In response to the COVID-19 pandemic, governments all over the world, including in Thailand, mandated the conversion of schools into virtual schools and online education (Jiang et al., 2021; Onyema et al., 2020). As a result, students and teachers have been forced to study and teach from home.

Teaching in an online environment will require a change in the mode of communication delivery. Many universities and colleges start online courses by using online meeting platforms such as Google or Zoom in order to ensure that pandemic quarantine measures did not disrupt education (Renu, 2021). Undoubtedly, online learning is changing the way in which instructors and students communicate in the 'new normal'.

Empirical studies

Several empirical studies have reviewed stakeholders' perceptions, including those of students and instructors, regarding teaching and learning online. Laksana (2020) surveyed 97 Indonesian students' perceptions of online learning. This study's findings indicate that students' varied perceptions of online learning during the COVID-19 pandemic covered infrastructure, interaction quality, and student benefits. Most students voiced their sentiments about online learning infrastructure, including gadgets, internet access, ICT, and lecture materials, indicating that the infrastructure for online learning in their context was not well-equipped. They also reported not yet being skilled in

online learning. However, they reported that online learning provided benefits regarding the learning process, the time for learning time, and the costs involved. The challenges faced by 42% of students related to internet access, their ability to use technology, and a lack of responsiveness from faculty and staff. The study found five major factors supporting online learning, namely government policies, online learning practices, technical infrastructure support, local information and communications, and low-cost technological equipment.

Similarly, Lo (2023) reviewed 70 articles about online learning published during the first two years of the pandemic, i.e. 2020-2021. During the 2020-2021 period, the challenges faced by students include student-related challenges, e.g. being unfamiliar with flipped learning; faculty challenges, e.g., demanding considerable preparation time; and operational challenges, e.g., issues with the infrastructure and information technology support. To cope with the challenges, Lo proposed strategies for implementing online learning consisting of various types of support, such as resources-related support, e.g. providing instructional videos; activities-related support, e.g., highlighting the application of knowledge and skills; and institutional facilitation-related support, e.g., allocating budgets for educational technology.

Gumede and Badriparsad (2022) reported students' perceptions of online teaching and learning in South Africa. Fourteen university students reported their perceptions through interviews that they were concerned about the transition from face-to-face lectures to online lectures. The students felt they were required to adjust without adequate preparation, on matters such as devices and data availability. Li and Che (2022) investigated the challenges and coping strategies of online learning for college students in the context of COVID-19 in Chinese universities. The results from an online questionnaire indicate that online learning results in a deficient learning environment, as well as physical health problems, e.g., eye strain, anxiety, and cervical stiffness. Coping strategies included a well-arranged online learning program and a peer-learning environment.

Turning to the Thai context, Boonmoh et al.'s (2021) study revealed that 126 Thai secondary teachers who completed the questionnaires encountered difficulties in online teaching. The same study reported that one main barrier to technology integration in classrooms was deficient facilities, such as computers and internet access. Furthermore, Boonmon et al., (2022) investigated the perceptions of six EFL teachers from universities across Thailand about technology integration in online teaching. The participants revealed that they encountered a lack of interaction and engagement in online classes, and they required future training, especially with regard to skills for online language teachers to teach effectively, online classroom etiquette introduction for students, and online communication for students.

Changing from physical face-to-face classes to online classrooms necessitates a shift in the communication medium. Many educational institutions started offering online classes using online platforms such as Google or Zoom to ensure that the quarantine measures did not disrupt education (Renu, 2021). However, online learning will unavoidably change the way teachers and students communicate in the 'new normal'. Previous studies have identified serious impacts and problems regarding education, such as inadequate learning infrastructure, low levels of classroom engagement and interaction, lack of nonverbal and intercultural awareness, insufficient proficiency in online learning, insufficient institutional support, absence of effective strategies for implementing online instruction (Laksana, 2020; Lo, 2023; Gumede & Badriparsad, 2022; Boonmoh et al., 2021; Boonmon et al., 2022). Thus, it is essential to research the current state of online learning and teaching in order to ascertain whether or not the problems still exist at this current state. This research, therefore, aims at investigating the present state of online learning in terms of instructors' experiences, needs, and challenges in the Thai context, specifically at one of the Thai universities that still offer online courses, KMUTT.

Skills needed to be a successful learner in online classes

Previous studies (Jhaiyanuntana & Nomnian, 2020; Banjongjit & Boonmoh 2018; Cheewasukthaworn & Suwanarak, 2017; Grobella 2015; Pewnail, 2021) regarding communication skills for online learning suggest that certain skillsets are required for students to be successful when studying online, namely intercultural communication competence and netiquette. To assess this, Deardoff (2004) and Byram (1997) proposed the Model of Intercultural Communicative Competence (ICC). In Byram's (1997) study, the ICC model comprises five primary components. Korol (2020) provided a concise summary of Byram's (1997) model, indicating that these five components comprise the following: "intercultural attitudes, which refers to curiosity and openness, the readiness to suspend disbelief about other cultures and beliefs about one's own; knowledge, which refers to the knowledge of social groups and their products and practices in one's own and one's interlocutor's country, and of the general processes of societal and individual interaction; skills of interpreting and relating, in other words the ability to interpret a document or event from another culture, to explain it and relate it to documents or events from one's own; the skills of discovery and interaction, i.e., the ability to acquire new knowledge of a culture and cultural practices and the ability to operate knowledge, attitudes, and skills under the constraints of real-time communication and interaction; and critical cultural awareness, which is the ability to evaluate, critically and based on explicit criteria, perspectives, practices and products in one's own and other cultures and countries" (Korol, 2020, p. 30). Similar to Byram (1997), Deardoff (2004) proposed the Model of Intercultural Competence comprises

attitudes, knowledge and comprehension, and skills. Apart from ICC, netiquette has also been mentioned, in Pewnil's (2021) guide. Netiquette is a digital etiquette or online communication rule for Thai digital citizens or Thai students to communicate effectively via online tools.

From the studies reviewed above, the present study may be useful for teaching online general education (GE) courses and learning from them as the related literature mentioning a diverse body of students from different nationalities studying and learning online in the same classroom is limited. Most previous studies focus on homogeneous classrooms where only Thai or non-Thais are studying in class. The context of the classrooms and participants of this study are international, comprising both Thai and international students. Hence, the findings may be generalized to other international contexts around the world.

Methodology

This section presents the sample, participants in this study, the data collection process, and further analysis of the data.

Sample

This research study took place at King Mongkut's University of Technology Thonburi (KMUTT), an autonomous university in Thailand that was founded in 1960. Its mission, presented in the KMUTT Roadmap 2021, is that "creates values and leads to changes for a strong and sustainable global society via the development of education innovation, research, creativity, and entrepreneurship" (KMUTT, 2021). With over 60 international programs and over 400 foreign students, KMUT is a genuinely international university. It is also one of the universities in Thailand that still offers courses online (KMUTT, n.d.). KMUTT's mission extends to equipping graduates with the knowledge and skills necessary for future careers.

To this end, KMUTT uses the KMUTT Student Qualification Framework (KMUTT Student QF) as a guide to reflect KMUTT's distinct goals and visions for the competencies that KMUTT graduates will require to succeed in the future. The framework addresses the development of soft skills, such as communication skills, diversity, intercultural competence, adaptation, and flexibility.

Participants

The participants from this study were selected based on a purposeful sampling method as all of them experienced online teaching and learning in the context of general education (GE) courses at King Mongkut's University of Technology Thonburi (KMUTT), Bangkok, Thailand. The researchers used this sampling

technique because it provides in-depth and detailed information about the participants' online learning and teaching in this particular education context in Thailand (Suri, 2011).

The participants were divided into two major groups: instructors and students. Students were surveyed using a 5-point Likert scale, while instructors were interviewed using a semi-structured interview. The interview period was from December 2022 to February 2023. The combination of data obtained from the questionnaire and the semi-structured interview assisted with validating through triangulation the assertions made by both groups of participants. Information sheets and consent documents were provided to the participants prior to the survey and interview time. All participants consented to data collection by researchers. The research project has been approved by the KMUTT IRB (Institutional Review Board) with a certificate number, KMUTT-IRB-COE-2022-189.

Instructors' profiles

The 10 instructors were GE instructors at KMUTT, a science and technology university in Bangkok, Thailand. They have experience teaching one subject of GE to international program students via the online medium. All the instructors have experience in encountering difficulties in teaching online, specifically regarding online communication skills. Their years of teaching experience, gender, teaching groups, and education qualifications vary. The instructors' background is confidential, and their names are presented in pseudonyms, fictitious names.

Table 1. Instructors' profiles with pseudonyms

No.	Pseudonym	Gender	Education qualification	Experience in teaching	Experience in online teaching
1	Nita	Female	Master's degree	10	3
2	Ploy	Female	Doctoral degree	4	3
3	Wibool	Male	Master's degree	6	3
4	Jirada	Female	Master's degree	15	3
5	Pailin	Female	Master's degree	3	1
6	Patchara	Male	Master's degree	10	3
7	Chin	Male	Doctoral degree	2	2
8	Noon	Female	Master's degree	8	2
9	Bow	Female	Master's degree	6	3
10	Arm	Male	Doctoral degree	18	3

Student participants

The 431 students were from different faculties’ international programs at KMUTT. All the students were enrolled in online GE courses and instructed in semester 1 of the academic year 2022 from August to December 2022 via online platforms at the university during one term of GE. The students included both Thai and non-Thai nationals. Their age, gender, faculty, year of study, and studying sections varied, as shown in the Table below.

Table 2. Students’ demographic data for the questionnaire

Aspects	Details	n	%
Gender	Male	241	55.92
	Female	180	41.76
	Prefer not to say	10	2.32
Age	18 – 21	401	93.04
	> 21	27	6.26
	< 18	3	0.70
Nationality	Thai	394	91.42
	Myanmar	31	7.19
	Indonesian	2	0.46
	Hong Kong Chinese	1	0.23
	Nigerian	1	0.23
	Filipino	1	0.23
	Cambodian	1	0.23
Faculty	Engineering	238	55.22
	Information Technology	73	16.94
	Industrial Education and Technology	70	16.24
	Science	44	10.21
	Architecture and Design	6	1.39

Research instrument

Online questionnaires and interviews were used to elicit the participants’ perceptions of both instructors’ and students’ experiences regarding online learning, particularly in terms of communication difficulties and potential intercultural communication difficulties.

Online questionnaire

The researchers developed an online questionnaire for students covering their experience and challenges in online learning. The content validity of all the questions was evaluated by three experts to measure the appropriate sampling of the content validity of items in a questionnaire. It was also piloted and finally

distributed to the participants. The bilingual Thai/English online questionnaire was sent to students via Google Forms. The questionnaire was used to acquire information about students' experiences with, and their perception of obstacles associated with, online learning, particularly in terms of communication difficulties and potential intercultural communication difficulties. The questionnaire comprised six sections, covering demographic information, experience with online learning, experience with online learning in GE, challenges with online learning in GE courses, challenges with intercultural differences, and their future needs for future training or workshops to enhance students' skills for studying online.

Interview

All 10 instructors were asked to answer 10 interview questions regarding their views on online communication and intercultural communication skills in online learning and teaching, as well as their experiences with, and their perception of obstacles associated with, online teaching, particularly in terms of communication difficulties and potential intercultural communication difficulties. Each interview took 30-45 minutes.

Data Analysis

The data obtained from the online questionnaire was analyzed using descriptive statistics. The frequency count and the percentage were used for calculating and thematizing the numeric data.

The data from the interviews were analyzed using thematic analysis (Braun & Clarke, 2006). The data from the interview was transcribed, analyzed, and reported based on themes. Key quotes from participants' responses were collated and presented in a narrative.

Findings

The data from both instructors and students were divided into two main parts, namely students' experience of online learning challenges and needs and instructors' experience of online learning challenges and needs. The perceptions of both students and instructors include their experience with online learning, their experience with online learning in GE courses, their challenges with online learning in GE courses, the challenges they experienced with intercultural differences and ways to cope with challenges, and their future needs for online training on online communication and intercultural communication.

Students’ experience of online learning, challenges, and needs

According to Table 3, the majority of students (n = 218, 50.58%) studied online for one semester, while 153 students or 35.50 percent studied for three semesters. For the online learning platforms used in previous semesters and the semester in which the research was conducted, most students stated that they used Zoom (n = 422, 97.91%) and Microsoft Teams (n = 396, 91.88%). Most students stated their preferred platforms for studying were Zoom (n = 213, 49.42%) and Microsoft Teams (n = 198, 45.94%). In terms of the device used to access the online teaching platforms for the semester in which the research occurred, interestingly, most students mentioned that they used a laptop (n = 315, 73.09%) and an iPad (n = 264, 61.25%) the most. In addition, 214 students or 49.65 percent of all students mentioned that they used a mobile phone for studying online. For the WIFI internet package, almost all students had no problems with this, as 371 of 431 students or 86.08 percent mentioned that they have a WIFI package for studying. It can be concluded that the majority of students already experienced studying online via technological devices. They also had adequate internet access, reflected in the high number of students who had internet packages and devices. The report on the students’ experience with online learning is shown in Table 3 below.

Table 3. Experience with online learning reported by students

	Details	n	%	
Length of studying online at university	1 semester	218	50.58	N = 431
	3 semesters	153	35.50	
	2 semesters	56	12.99	
	4 semesters	3	0.70	
	More than 4 semesters	1	0.23	
Online learning platforms used in the past and in the semester in which the research occurred	Zoom	422	97.91	N = 431
	Microsoft Teams	396	91.88	
	Google Meet	131	30.39	
	Line Video Call	92	21.35	
	Facebook Live	72	16.71	
Preferred platforms	Messenger Video Call	9	2.09	N = 431
	Zoom	313	72.62	
	Microsoft Teams	178	41.30	
	Google Meet	15	3.48	
Devices used to access online teaching platform in the semester in which the research occurred	Messenger Video Call	1	0.23	N = 431
	Laptop	315	73.09	
	iPad	264	61.25	
	Mobile phone	214	49.65	

	Details	n	%	
	PC computer	96	22.27	
	Tablet	4	0.93	
WiFi internet package	Yes	371	86.08	N = 431
	No	60	13.92	

In Table 4, the majority of the 431 students agreed that their GE courses were lecture-based learning (n = 351, 81.44 %). In contrast, the instructors reported that the GE courses were activity-based courses, providing problem-solving skills, critical thinking, and analytical skills. Even though students reported that the courses are lecture-based, they agreed that the General Education courses provided a variety of activities, including group discussion, pair work activity, individual work, and other collaborative work. Interestingly, many students (n = 305, 70.77%) reported that their classes were diverse in terms of faculties and nationalities (n = 322, 74.71%). Taken together, these results suggest that students viewed GE courses as lecture-based learning with encouragement from their instructors to interact in class; however, many students decided to turn on their cameras only when they were asked to do so by their instructors. Details of experience with online learning reported by the students are shown in Table 4 below.

Table 4. Experience with online learning in GE courses reported by students

	Details	n	%	
Type of learning of the courses	Lecture-based learning	351	81.44	N = 431
	Activity-based learning	80	18.56	
Experience of type of learning in the GEN121 class	Group discussion	388	90.02	N = 431
	Whole class presentation	357	82.83	
	Pair work activity	345	80.05	
	Doing collaborative work on shared boards	323	74.94	
	Individual work	318	73.78	
	Listening to lecture	284	65.89	
	Encouragement from lecturers to activate webcam	Yes	337	78.19
	No	94	21.81	
Frequency of opening webcam while studying in GEN121	I only turn on the webcam when the teacher instructs me to.	298	69.14	N = 431
	I only use 20-30% of the webcam.	47	10.90	
	I turn on the webcam about half the time.	24	5.57	
	I never turn on the webcam.	24	5.57	
	I use the webcam 70-80% of the time.	17	3.94	
	My device does not have a webcam.	15	3.48	
	I always have the webcam on.	6	1.39	

	Details	n	%	
Classmates from different departments or faculties	Yes	305	70.77	N = 431
	No	126	29.23	
Classmates from different countries	Yes	322	74.71	N = 431
	No	109	25.29	

Table 5 reveals the challenges encountered by students. The major challenges reported by the students include online communication including netiquette in the classroom, whole-class interactions, activities and assignments, pair work, and group work collaboration. Furthermore, students mentioned challenges regarding technical problems, the learning environment, and English proficiency.

Concerning online communication-related challenges, particularly in terms of netiquette in the classroom, most students reported that they do not feel confident turning on the webcam (n = 209). For whole-class interactions, most students (n = 126) reported that not knowing how to interact with classmates from different departments and/or faculties was their main problem. For activities and assignments, 147 students mentioned that they had too much homework. In pair work and group work collaboration, most students mentioned that not communicating with one another when in a group was a major problem (n = 95). The GE classes are foundation classes, which means that they are compulsory classes for students. Thus, the students definitely are diverse across different aspects, including majors, faculties, nationalities, and ages. So, these students may not be able to immediately become familiar with each other so as to immediately have conversations comfortably. So, the lack of familiarity with peers from different backgrounds can lead students to encounter difficulties when studying online, as shown in Table 5.

Table 5. Challenges with online learning in GE courses reported by students

Categories	Details	n	%	
In terms of online communication in classroom	Not feeling confident enough to turn on the webcam.	229	53.13	N = 431
	Not knowing when the turn is to talk with friends and lecturers.	134	31.09	
	Not feeling confident enough to unmute the microphone.	133	30.86	
	Feeling it's difficult to keep the conversation/text/message concise.	98	22.74	
	No problem with the above issues at all.	85	19.72	
	Not knowing how to end/pause the conversation with friends.	56	12.99	
	Not knowing how to reply to lecturers'/ friends' messages.	51	11.83	

Categories	Details	n	%		
In terms of online communication	Whole class Interactions	Not knowing how to interact with classmates from different departments/faculties.	126	29.23	N = 431
		Feeling it's hard to see friends' and lecturers' body language through the online program.	113	26.22	
		Not feeling confident enough to speak in front of the class.	103	23.90	
		Too shy to express my own opinion.	100	23.20	
		Not being close to the classmate with whom I am working.	96	22.27	
		Being afraid that my idea will be rejected or ignored.	88	20.42	
		No problem with the above issues at all.	80	18.56	
	Activities and assignments	No problem with the above issues at all.	148	34.34	N = 431
		Having too much homework.	147	34.11	
		Having too much work during class time.	140	32.48	
		Having too many group work activities.	74	17.17	
		Having too many group assignments.	57	13.23	
		Not being able to decide who to work with.	55	12.76	
	Pairwork and group work collaboration	Not communicating with one another when in a group.	154	35.73	N = 431
		Once in a group, members just write and do not speak.	121	28.07	
		Having difficulty allocating work to each member.	108	25.06	
		No problem with the above issues at all.	95	22.04	
		Having difficulty contacting a friend to work together.	85	19.72	
		Having no one to lead the group work.	83	19.26	
		Not being able to choose who to work with.	58	13.46	
		Working frequently with the same people.	48	11.14	
Turning off the webcam during group work.	37	8.58			
In terms of technical problems	No problem with the above issues at all.	209	48.49	N = 431	
	Having a low internet connection	152	35.27		
	When used repeatedly, the computer/laptop/iPad/other devices for learning become overheated.	93	21.58		
	Some functions are inaccessible due to the use of a mobile phone.	42	9.74		
	The microphone is broken.	35	8.12		
	Having only one laptop for studying.	29	6.73		
	Some mobile phone functions are inoperable.	26	6.03		

Categories	Details	n	%	
In terms of Environment	No problem with the above issues at all.	189	43.85	N= 431
	Home study makes me feel lazy and sleepy.	147	34.11	
	There are noises from friends/neighbours/ family members during conversations between friends and lecturers.	126	29.23	
	I cannot concentrate since I live among roommates or family.	66	15.31	
	I cannot find a private place to study.	47	10.90	
In terms of English proficiency	No problem with the above issues at all.	203	47.10	N= 431
	Not feeling confident enough to use English.	129	29.93	
	Not having enough vocabulary in English to communicate with friends.	121	28.07	
	Not having enough knowledge of English grammar to communicate.	108	25.06	
	Lack of English vocabulary, sentence structure/grammar knowledge to discuss/communicate with friends or lecturers.	107	24.83	

Table 6 suggests that challenges exist regarding intercultural differences between students. The findings indicate four aspects of intercultural difference, namely knowledge, skills, attitudes, and awareness, which students find challenging when studying online. The mentioned problems are related to working in groups, especially communicating with peers and sharing ideas with peers in groups. However, students reported one very serious main problem was that their peers do not share ideas with them in a group (n = 87, 20.19 %). Students also concluded that their most serious problems were mainly related to not knowing peers’ backgrounds/departments (n = 57 students, 13.23 %), having problems working in a group with friends who have different ideas (n = 29 students, 6.73 %), and having no ideas/opinions to share with friends (n = 28 students, 6.50 %).

As mentioned earlier in the section on Table 5, students are diverse and varied in various aspects, e.g., age, nationality, and faculties. It can be inferred that the students did not have prior background knowledge about each other. So, it can be inferred that the GE classes are one of the most challenging classes for students in terms of getting to know their peers as well as in terms of communicating. This is because it is hard for those students to build relationships and develop connections in order to work together. Specifically, when students have to perform public speaking or deliver presentations online, it is difficult for them to be able to perform the tasks and assignments professionally since they are not used to turning on cameras and interacting in classes. Hence, those students who are not familiar with communicating in classes may not be familiar with netiquette in online classrooms either. Consequently, they will not have enough awareness of conducting adequate online communication and developing online

interaction skills in classrooms. Some students are passive learners who are familiar with lecture-based classes, so they are not familiar with GE classes that require them to have a higher level of interaction. Unavoidably, those students may lack intercultural communication skills and online communication skills, as shown in Table 6 in the next section.

Table 6. Challenges with intercultural differences reported by students

Categories	Aspects	Details	n	%	
In terms of intercultural differences	Knowledge	Having no knowledge about friends' backgrounds/departments.	172	39.91	N = 431
		Having problems understanding texts/chat from friends.	135	31.32	
		Having problems sharing ideas that are different from my friends' ideas.	110	25.52	
		Having problems understanding friends' ideas.	75	17.40	
		Having no ideas/opinions to share with my friends.	69	16.01	
	Skills	Having problems understanding friends' speaking/conversation.	135	31.32	N = 431
		Having problems asking friends from different departments to work together.	97	22.51	
		Being unable to talk to friends from different departments.	80	18.56	
		Having problems working in groups with friends who have different ideas.	78	18.10	
		Being unable to relate my own ideas and my friends' ideas.	63	14.62	
		Being unable to blend/adjust/change myself in a group that has friends from different departments.	42	9.74	
	Attitudes	Feeling it's hard to understand friends who are from different departments.	160	37.12	N = 431
		Not wanting to deal with my own emotions and frustration when working in teams/groups.	94	21.81	
		Having problems accepting opinions from friends who are from different departments.	92	21.35	
		Not wanting to talk/share ideas with friends in teams/groups.	60	13.92	
		Not wanting to blend/adjust/change myself in the group that has friends from different departments.	36	8.35	

In terms of intercultural differences	Awareness	No problem with the above issues at all.	239	55.45	N = 431
		Friends do not share ideas with me in groups.	127	29.47	
		Friends in groups cannot communicate/talk/work together.	47	10.90	
		Friends from different departments have too different ideas from me.	46	10.67	
		Friends in groups do not listen to each other.	34	7.89	
Top ten most serious online communication problems		Friends do not share ideas with me in groups.	87	20.19	N = 431
		Having no knowledge about friends' backgrounds/departments.	57	13.23	
		Having problems working in groups with friends who have different ideas.	29	6.73	
		Having no ideas/opinions to share with my friends.	28	6.50	
		Having problems understanding texts/chat from friends.	26	6.03	
		Friends in group cannot communicate/talk/work together.	22	5.10	
		Having problems understanding friends' speaking/conversation.	20	4.64	
		Having problems asking friends from different departments to work together.	20	4.64	
		Friends in group do not listen to each other.	17	3.94	
		Bing unable to talk to friends from different departments.	12	2.78	

According to Tables 3 – 7, students encountered challenges when studying online, so they require online training to cope with the challenges. Table 7 illustrates preferences for future online training reported by students. With regard to preferences for future online training in online communication and intercultural communication, most students demonstrated experience with using social media. Table 7 displays the most-used social media, the kind of media students like to watch, and the kind of media that could be useful for further online training materials about online communication and intercultural communication skills. Most students reported the most-used social media to be Instagram, YouTube, and Facebook. They also reported the kind of media they liked to watch was Instagram, YouTube, and Facebook. Further, most students reported their needs and their perceived future training/workshops to be a series of short videos of 5-7 minutes per video, and a series of short videos of 10-15 minutes, consisting of video and multimedia. The results in Table 7 reveal that students would like to cope with the challenges they were facing; however, they

did not want to spend too much time on the training. This is why the students reported that they preferred short training sessions in the form of a series of short videos. The results aligned with the kinds of media that the students like to watch, which are Instagram posts, which consist only of short videos. Table 7 follows.

Table 7. Preferences on future online training reported by students

Aspects	Detail	n	%	
Experience with using social media	YouTube	426	98.38	N = 431
	Facebook	419	97.22	
	Instagram	406	94.20	
	Twitter	317	73.55	
	Tiktok	302	70.07	
	Pinterest	301	69.68	
Most-used social media (the social media platforms that students reported using the most)	Instagram	268	62.18	N = 431
	YouTube	219	50.81	
	Facebook	109	25.29	
	Tiktok	78	18.10	
	Twitter	48	11.14	
Kind of media students like to watch	Instagram: Stories	298	69.14	N = 431
	YouTube: Videos	297	68.91	
	TikTok: Short videos	215	49.88	
	Facebook: Short Videos	190	44.08	
	Instagram: Photos/Quotes	159	36.89	
	Facebook: Photos	157	36.43	
	Twitter: News, blog posts	149	34.57	
	YouTube: Short videos	138	32.02	
	Pinterest: Infographics and step-by-step photo guides	115	26.68	
	Facebook: Captions	92	21.35	
	YouTube: Live videos	62	14.39	
	Instagram: Live stories	58	13.46	
	Facebook: Live Videos	33	7.66	
Kind of media for further online training	Series of short videos: 5-7 minutes/video	247	57.31	N = 431
	Photos/infographics, texts, and blog posts	153	35.50	
	Series of short videos: 10-15 minutes/video	139	32.25	
	Multimedia	127	29.47	
	Lectures videos: 20-30 minutes/video	80	18.56	
	Live videos	32	7.42	

Instructors’ experience of online learning, challenges, and needs

All 10 instructors were asked to answer 10 interview questions regarding their views on online communication and intercultural communication skills in online learning and teaching. In terms of the instructors’ views of the courses content, there is a mismatch between the students’ perceptions and the instructors’ perceptions as the majority of 431 students agreed that their GE courses were lecture-based learning (n = 351, 81.44 %). In contrast, the instructors reported that the GE courses were activity-based courses providing problem-solving skills, critical thinking, and analytical skills. Other views mentioned by lecturers regarding the course content are presented in Table 8 below.

Table 8. Perceptions of the course content reported by instructors

	Detail	Participant										n
		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	
The courses content characteristics	Having a focus on thinking skills, such as analytical and critical thinking skills.	/	/		/	/	/	/	/	/	/	9
	Having group work/group activity.			/					/		/	3
	Having group discussion/classroom discussion/brainstorming.			/		/	/			/		4
	Focusing on learning skills, such as how to be a good learner.	/			/		/	/				4
	Being activity-based.		/			/	/	/	/	/		6
	Having students share ideas/experiences/knowledge in class.								/	/		2
	Focusing on problem-solving skills.									/	/	2

Note. T = Teacher/Instructor; The symbol “/” (a tick) indicates that the item has been mentioned by instructor(s).

Most lecturers mentioned that these General Education (GE) courses have multiple modules. They strongly suggested that GE courses are related to different layers of thinking skills. Nita, or instructor 1, began her teaching career while pursuing her master’s degree. She had taught at two major universities, covering one general education course at the current university and instructing three courses, with a focus on general education, at another university. Nita had accumulated 10 years of teaching experience, involving both in-person and online instruction. Since the COVID-19 pandemic, she had been exclusively teaching online for three years or approximately six to seven terms. Nita stated that:

I understand that normally GE courses have been divided into three modules, and in each module, it has learning outcomes. There are different pathways (learning outcomes) for all modules, and all pathways are connected. In brief, I think the first is related to analytical skills that allow students to analyze and synthesize the content of the lessons. For the second pathway, students will have a critical skill, which is expanded from analytical skills; they can find arguments and reasons through debating activities. I think students can make use of these thinking skills a lot in their real life.

Similar to Nita, Ploy (instructor 2) stated that GE courses are related to thinking skills and are activity-based. Ploy held a Ph.D. and worked as a research associate at the target university. She began her teaching career as a teaching assistant during her master's degree and had four years of teaching experience, with a focus on general education courses. Ploy transitioned to online teaching due to COVID-19, accumulating three years of online teaching experience, with only one to two years of prior offline teaching. Ploy clearly suggested that:

I would say that the content of this course is not too much, but focuses more on activity. For example, in the very first couple of classes, students will get opportunities to practice thinking, abstract thinking vs concrete thinking. The lecturers will lead the students to the lessons by activity. So, the class is activity-based.

Table 9 shows the 10 instructors' perceptions of their overall online experience. Instructors presented their views about the overall teaching online experience mostly by mentioning that they had no problems as a lecturer with teaching online because of their adjusting themselves to the change and their ability, together with new program learning skills ($n = 7$). Also in Table 9, the instructors reported the benefits of online teaching. Five instructors mentioned that online teaching was convenient, practical, and flexible for students. Last, most instructors mentioned that they used Zoom ($n = 8$) and GoogleJamboard/other shared boards ($n = 6$) for online teaching. The overall results are different from the students' survey results as the students reported challenges with online studying, while the instructors reported minor problems regarding online teaching.

Table 9. Instructors’ perceptions of the overall teaching online experience

Aspects	Categories	Participant										n
		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	
Overall Experience	Having no problems or few problems as a lecturer in teaching online because of their adjusting themselves to the change/ability and new program learning skills.	/	/		/	/		/		/	/	7
	Students did not turn on camera/unmute microphone		/			/					/	3
Advantages of teaching online	Having two-way communication when teaching online for almost 24 hours (e.g., texting, chatting, Mentimeter, chatting).	/	/							/		3
	Saving students’ and lecturers’ time for traveling to university and changing the classroom.		/		/							2
	Being convenient, practical, and flexible for students to manage time for study, study anywhere, and save money for transportation.			/	/	/		/			/	5
	Being convenient for teachers in terms of preparing materials, resources, and locations for teaching.								/	/		2
	Allowing students to approach the lecturers easily in both in-class and out-of-class settings.						/			/		2
Teaching platforms	Microsoft Teams	/			/	/						3
	Zoom	/	/	/	/		/	/		/	/	8
	Line (for communication)	/			/							2
	Miro: Shared board		/					/		/		3
	Google Jamboard/other shared board		/	/		/		/	/	/		6
	Google slides							/			/	2
	The central platform provided by the university	/						/				2

Note. The symbol “/” (a tick) indicates that the item has been mentioned by instructor(s)

Zoom has been acknowledged as the best tool for teaching online by most instructors. Wibool, instructor 3, began teaching as a lecturer in 2017 and had six years of experience. He specialized in teaching general education courses, primarily for first- and second-year undergraduate students. Wibool taught on-site for three years and then transitioned to online teaching for the subsequent three years. He mentioned that Zoom is his main teaching platform as follows: “Usually, I use Zoom because students are more familiar with it. Additionally, I use Jamboard to assist. Currently, I prepare information and provide opportunities for consultation.”

In terms of challenges with online learning in the GE courses, similar to students, the instructors mainly reported challenges regarding online communication, including netiquette in the classroom, technical errors, English proficiency, and cultural differences, as shown in Table 10 below. Table 10 reveals that, similar to students’ perceptions, instructors also perceived that students had problems with interactions in classes, since six instructors mentioned this.

In terms of technical problems, most instructors mentioned that they experienced problems regarding internet connection (n = 6 out of 10 instructors). Similarly, the majority of students (n = 209, 48.49 %) agreed that they do not have technical problems when studying online (see Table 5).

It can be inferred that both instructors and students were familiar with technology usage because they were experienced with using technology in their studying and teaching during COVID-19 onward. Table 10 below shows details of the instructors’ perceptions of challenges and difficulties.

Table 10. Instructors’ perceptions of challenges and difficulties in online teaching

Aspects	Categories	Participant										n
		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	
Challenges/problems found regarding online communication	Having little /no interactions/participation when students joined the break-out room/studied in class (e.g., be silent or turn off cameras/microphones).	/	/	/	/			/			/	6
	Having difficulty tracking students for work/assignment/attendance/learning pace/attention.		/	/				/		/	/	5
	Taking a long time to work on group work/ manage class (e.g., managing group work, finishing group work, talking to students, grouping students).		/	/	/				/		/	5

Aspects	Categories	Participant										n
		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	
Challenges/problems found regarding online communication	Having difficulty encouraging students to be in a suitable learning environment, such as studying in a noisy place, studying at home leaving Zoom on, and disturbances from students' surroundings: parents, noises near home, studying in bed.	/	/		/		/		/			5
Challenges/problems found regarding technology errors	Having difficulties with technological devices/programs (out-of-date programs, files, email verification problem).	/					/	/				3
	Having low/no/unstable internet connection.		/	/	/	/	/	/				6
	Receiving problems reported by students: not having good quality technological devices to study with/having limited access to technological devices/overheated devices.				/						/	2
Problems from students in terms of English proficiency	Having no problems with the English language in classes.	/					/					2
	Having students with limited English knowledge who are not confident to share/write ideas with friends.		/								/	2
	Having students who were not confident to express their ideas in English.		/								/	2
	Having students who did not understand the questions in English/problems or the meaning of English technical terms/texts.		/	/	/							3
	Some students were not ready to study English/couldn't catch up because they didn't have enough English proficiency.				/				/			2

Aspects	Categories	Participant										n
		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	
Problems from students in terms of cultural differences	Different learning styles of students from different faculties.	/	/						/			3
	Experiencing students from different departments/years of study/faculties did not share ideas or did not work well in group.		/				/					2
	Experiencing that some students in the group did not work/did not communicate/disappeared.			/	/						/	3
	Having students who didn't want to work with friends from different faculties/departments.				/			/				2

Note. The symbol “/” (a tick) indicates that the item has been mentioned by instructor(s)

For this table, one of the most outstanding challenges in teaching online is related to little interactions produced by students. Instructor 7, Chin, initially started as a lecturer teaching online general education courses and was familiar with online teaching, having done so for the past two years. Chin suggested that:

The difficulties that I encountered are students turning off their cameras; they also turn off their microphones. So, it is difficult for me to know whether they understand the lessons or not. I couldn't see their facial expressions, and they are silent as well sometimes.

Apart from little interactions, most instructors also reported that students experienced low/no/unstable internet connections when studying online. Instructor 6, Patchara, had 10 years of teaching experience, specializing in electrical engineering and general engineering at both the target university and another institution. He had been teaching general education courses for about three years at both universities, with only one year of experience in online teaching. He was typically more accustomed to onsite teaching from his previous university and Patchara addressed this:

Students are not ready to learn in online solely. There are both advantages and disadvantages of studying online. The disadvantage is that students may say that they have unstable internet. They may also state that being in a loud university environment might be their problems, from my perspective these problems are not related to the subject or lesson. So, I try to use breakout rooms to visit each room.

Instructors' strategies to cope with the problems

Table 11 presents the strategies that the instructors used to solve the problems regarding online studying. The instructors identified different strategies to cope with the problems and challenges. The instructors partly converged on coping with English proficiency problems, as five employed subtitles when using videos in English, translating the materials from Thai to English, and summarising the content and materials in English. Three reported attempting to encourage students to summarize or recap the lessons themselves. Also, when the students experienced problems, the instructors focused on using different online platforms, as well as online applications and programs, to help them. Thus, the instructors were aware of the challenges and difficulties faced by students and attempted to cope with these problems with diverse strategies.

Table 11. Perceptions of ways to cope with problems and challenges in online teaching reported by instructors

Categories	Participant										n
	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	
Using different online platforms to communicate with students (e.g. Zoom, Line).	/			/							2
Translating English materials to Thai or using Thai subtitles.	/			/	/		/	/			5
Ask students to answer the questions and express ideas.		/	/								2
Asking students to summarize the lessons or recap the lessons.			/	/			/				3
Using programs/applications (e.g. sticky notes, online timer) to monitor students when working in group.		/						/			2
Using transliteration strategy to teach.						/		/			2
Tracking down students to study and submit work.		/							/		2
Ask students to turn on cameras and microphones when interacting.				/						/	2

Note. The symbol “/” (a tick) indicates that the item has been mentioned by instructor(s)

Most-mentioned way to cope with problems is translating English materials to Thai or using Thai subtitles. Instructor 8, or Noon, had been teaching for approximately eight years. She began teaching general education courses around two years ago during the outbreak. Noon started her teaching career as an online teacher right from the beginning at the target university. However, she also gained experience in teaching before as a learning facilitator, assisting with teaching and learning activities when she was a student at the target university.

She suggested that the way to accommodate students with difficulties related to English materials is through translation.

Sometimes, when I teach students, I find that some students do not have a strong English proficiency background. I would like to help them because I know that not all students are good at English. So, I decided to translate English videos into Thai, and sometimes I even put Thai subtitles in English videos.

Table 12 details the instructors' needs regarding future training. Similar to their students, most instructors would like to have future workshops which are short workshops or training sessions, especially ones that occur only one or two days before the beginning of the courses. In addition, the instructors described the desired content of the future training sessions and workshops, in that they should teach some required skill sets to their students, such as presentation skills, public speaking skills, and technological device usage skills. These findings illustrate how instructors and students are familiar with online short training courses and workshops in the modern world. With regard to instructors, their current stated needs may only be short training sessions or workshops that are tailored to students' problems. The instructors also stated that the desired inputs for the training courses and workshops should be those best aligned with the skills the students most lacked, as reported by both students themselves and lecturers, such as online communication skills, presentation skills, intercultural skills, public speaking skills, and group work strategies.

Table 12. Instructors' perceptions of needs and future training course, workshops, and materials

Aspects	Categories	Participant										n
		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	
When to conduct the training	Before the courses.	/			/	/	/	/		/	/	8
	During the courses.		/	/					/			3
	After the courses.		/			/						2
Inputs for future training/workshops	Basic learning skills (learning environment, time management).	/								/		2
	How to perform public speaking.	/						/				2
	How to be open-minded to interact in class when studying online.			/		/						2
	How to use social media/ technological devices/programs for studying.				/		/					2
	How to present work/assignments.					/		/				2

Inputs for future training/workshops	How to work in a group and share ideas with friends or with the class.					/			/			2
	Manner/demeanor/netiquette in class including when to speak.						/				/	2
	How to share ideas and reflect on shared ideas.							/			/	2
	English verbal and non-verbal communication.									/	/	2
Kinds of training for students	On-site.	/		/								2
	Online.	/									/	2
	Short training workshop.		/		/	/	/	/	/	/	/	7

Note. The symbol “/” (a tick) indicates that the item has been mentioned by instructor(s)

Most instructors suggested their needs regarding students’ training programs. Eight instructors stated that they would like students to prepare themselves before the course starts by joining the training. Seven out of 10 lecturers mentioned that they would prefer students to participate only in short training workshops. Instructor 4, Jirada, was the most experienced among all the lecturers. She had 15 years of teaching experience at another university and had been at the target university for eight to nine years, totaling approximately 24 years. Jirada started teaching online in response to the COVID-19 pandemic in 2020. Jirada suggested that:

I would prefer students to have the training before studying. I think it would be more useful if the workshop is launched before classes. I would recommend students to learn how to use LINE for communication and use Zoom for studying. I think just a one or two-day workshop is okay.

Discussion and conclusion

The results were diverse and varied according to the teachers’ and students’ perceptions of their experiences, challenges, and needs. There are similarities and differences between the instructors’ and students’ perceptions. Overall, both the instructors and students in this study were familiar with online teaching and online learning. They shared positive attitudes towards online learning as it helps them to be time efficient and reduce the expenses related to transportation. Also, the instructors and students reported that online teaching allows students to be flexible and to study anywhere and at any time. Overall, students’ and lecturers’ perceptions are related to intercultural communication models proposed by Deardoff (2004) and Byram (1997) regarding intercultural attitudes,

intercultural skills, intercultural awareness, and intercultural knowledge and comprehension.

The findings reveal a similarity in both students' and lecturers' perceptions of the challenges of online learning. The results are partly aligned with the previous empirical studies (Laksana, 2020; Lo, 2023; Gumede & Badriparsad, 2022; Boonmoh et al., 2021; Boonmon et al., 2022) vis-à-vis students and lecturers' challenges include a lack of interaction, a deficient learning environment and challenges in interacting online. Different from other empirical studies, both students and instructors from this study agreed that online communication and intercultural communication skills were essential in online learning, aligned with the Intercultural Communication Competence models proposed by Deardoff (2004) and Byram (1997). Also, some students agreed that they lacked the ability to communicate with their peers online, especially when working in a group. The instructors also reported that students scarcely interacted in classes and rarely turned on their cameras to show facial expressions and body language. These results suggest that online communication skills including netiquette (Pewnil, 2021) are essential for online learning, especially general education courses that require interactions. In Pewnil's (2021) study, digital etiquette includes communication etiquette to enable Thai students to communicate online effectively, such as knowing their turn to talk, knowing how to hone the tone when sending messages, and knowing how to share ideas with other people online. For future needs, both students and lecturers would like to have short workshops and training sessions. However, there exists a mismatch over the perception of severity of problems, as the instructors generally stated that there were no or only minor problems when teaching online, while students reported difficulties regarding intercultural differences, intercultural communication skills, and online communication skills. Interestingly, the instructors revealed concern over students' public speaking and presentation performances, as well as over the learning environments. The instructors also viewed students as sometimes not being confident in speaking in English.

There are also similarities in terms of the challenges and difficulties reported by the students and instructors. Students mainly reported challenges regarding online communication including netiquette in the classroom, which aligns with Pewnil's (2021) study and which covers whole class interactions, activities and assignments, pair work, and group work collaboration. Slightly different from the students' perceptions, the instructors mainly reported challenges regarding online communication, primarily netiquette in the classroom, technical errors, English proficiency, and cultural differences. These results are aligned with Jhaiyanuntana and Nomnian's (2020) study, as language difficulties and a lack of intercultural awareness can contribute to difficulties in online learning settings.

To cope with the aforementioned challenges and difficulties, instructors require the training to have speaking skills, such as presentation in English, discussion in English, and public English speaking, while students focus more on sharing ideas and communicating in groups. With regard to preferences on future training sessions and workshops on online communication and intercultural communication, both instructors and students agreed on short training sessions and workshops on online communication and intercultural communication skills. Both instructors and students that communication skills and intercultural communication skills should be included in future workshops and training. Thus, it is valuable to integrate the concept of intercultural communication into classrooms (Jhaiyanuntana & Nomnian, 2020; Banjongjit & Boonmoh, 2018; Cheewasukthaworn & Suwanarak, 2017; Grobella, 2015). Hence, the instructors stated that for students to study effectively for online courses, they should have adequate technological device usage skills, basically knowing how to use technological devices, as well as knowing how to use technological applications and online platforms.

In terms of challenges, both instructors and students reported challenges with intercultural differences, including the four aspects of problems, including knowledge, skills, attitudes, and awareness, aligning with the Model of Intercultural Communication Competence proposed by Deardoff (2004) and Byram (1997). The aforementioned problems concern working in groups, especially communicating with peers, and sharing ideas with peers in groups. The results are concordant with previous studies (Pansa et al., 2022; Boonmoh et al., 2021; Atmojo & Nugroho, 2020) which found that the crucial issue with online learning is a lack of student involvement and very little or no interaction between teachers and students. Regarding ways to cope with the problems and challenges, instructors mentioned different ways of dealing with the problems and challenges. The instructors mainly shared their own views on coping with English proficiency problems as they used the different teaching techniques in classes.

In terms of pedagogical implications, since students are not particularly familiar with turning on cameras and unmuting microphones to interact in classes, instructors should find ways or teaching approaches to encourage students to interact more by turning on cameras and unmuting their microphones. Instructors may find some question-answering sessions for students to answer questions, engage in stimulation activities, engage in role-play activities, and deliver more presentation sessions. By doing so, students will have more chances to interact via their cameras and microphones. To create a good atmosphere for students to speak up, the instructors may highlight that students can speak without fear of making mistakes. Instructors can also focus on content rather than language when allocating scores to students. Also, instructors can tell students that their voice is being heard so that the students can be confident about

speaking up. Furthermore, instructors might take it for granted that students know about the basic skills of technological devices and programs. However, students should be trained prior to attending online courses in how to make use of these technological devices and programs. If the students learn how to use the technological devices and programs' functions, they will be able to submit work on time and work with their peers more proficiently. The findings also suggest that instructors may be able to help students to develop intercultural communication skills and online communication skills by including some ice-breaking activities for students in the very first class. By doing so, students will be aware of how to interact with peers from different backgrounds. Then students will be more familiar with classmates and find it easier to start talking to new ones. Finally, students will be able to communicate with classmates from different backgrounds more easily in future classes.

As further research, we will attempt to design an introductory training session or workshop for students according to the findings of this research project. Initially, we aim to respond to the program-learning outcomes (PLOs) from the results of the interview and survey, then we will design the lesson plans and invite course and curriculum design experts to validate and check our course design. Lastly, we will produce an introductory training workshop for students based on desired inputs for the training courses from this study. Hence, the results of this research project will be transformed from a research article into effective workshops in order for students to enhance their online communication and intercultural skills.

References

- Alawamleh, M., Al-Twait, L.M., & Al-Saht, G.R. (2020), The effect of online learning on communication between instructors and students during Covid-19 pandemic. *Asian Education and Development Studies*, 11(2), 380–400. <https://doi.org/10.1108/AEDS-06-2020-0131>.
- Al-Salman, S., & Haider, A. S. (2021). Jordanian University Students' Views on Emergency Online Learning during COVID-19. *Online Learning*, 25(1), 286–302. <https://doi.org/10.24059/olj.v25i1.2470>.
- Atmojo, A. E. P., & Nugroho, A. (2020). EFL classes must go online! Teaching activities and challenges during COVID-19 pandemic in Indonesia. *Register Journal*, 13(1), 49–76. <https://doi.org/10.18326/rgt.v13i1.49-76>.
- Banjongjit, B., & Boonmoh, A. (2018). Teacher's perceptions toward promoting intercultural communicative competence in EFL classroom. *rEFlections*, 25(2), 76–97. <https://doi.org/10.61508/refl.v25i2.165393>.
- Boonmoh, A., Jumpakate, T., & Karpklon, S. (2021). Teachers' perceptions and experience in using technology for the classroom. *Computer-Assisted Language Learning Electronic Journal*, 22(1), 1–24.

- Boonmoh, A., Jumpakate, T., Saengmanee, S., & Rungkaew, T. (2022). Integration of Technology during the COVID-19 Pandemic: Experience, Challenges and Needs of Thai EFL Teachers. *REFlections*, 29(2), 251–277. <https://doi.org/10.61508/refl.v29i2.259346>.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>.
- Byram, M. (1997). *Teaching and assessing intercultural communicative competence*. Clevedon, UK: Multicultural Matters.
- Castelli, F. R., & Sarvary, M. A. (2021). Why students do not turn on their video cameras during online classes and an equitable and inclusive plan to encourage them to do so. *Ecology and Evolution*, 11(8), 3565–3576. <https://doi.org/10.1002/ece3.7123>.
- Charoensuthipan, P. (2021). *Third wave's unpalatable reality*. Bangkok Post. Retrieved December 12, 2022 from <https://www.bangkokpost.com/thailand/special-reports/2106859/third-waves-unpalatable-reality>.
- Cheewasukthaworn, K., & Suwanarak, K. (2017). Exploring Thai EFL teachers' perceptions of how intercultural communicative competence is important for their students. *PASAA*, 54, 177–204.
- Deardoff, D. (2004). Identification and Assessment of Intercultural Competence as a Student Outcome of Internationalization. *Journal of Studies in International Education*, 10(3), 241–266. <https://doi.org/10.1177/1028315306287002>.
- Dişlen Dağgöl, G., & İşpınar Akçayoğlu, D. (2023). From Emergency Remote Teaching to Remote Online Education: Challenges, Benefits and Differences in EFL Setting. *Kastamonu Eğitim Dergisi*, 31(1), 48–59. <https://doi.org/10.24106/kefdergi.1243546>.
- Grobella, A. (2015). Intercultural challenges facing the hospitality industry: Implications for education and hospitality management. *Journal of Intercultural Management*, 7(3), 101–117. <https://doi.org/10.1515/joim-2015-0023>.
- Gumede, L., & Badriparsad, N. (2022). Online teaching and learning through the students' eyes. Uncertainty through the COVID-19 lockdown: A qualitative case study in Gauteng province, South Africa. *Radiography*, 28(1), 193–198. <https://doi.org/10.1016/j.radi.2021.10.018>.
- Intawong, K., Olson, D., & Chariyalertsak, S. (2021). Application technology to fight the COVID-19 pandemic: Lessons learned in Thailand. *Biochemical and biophysical research communications*, 534, 830–836. <https://doi.org/10.1016/j.bbrc.2020.10.097>.
- Jhaiyanuntana, A., & Nomnian, S. (2020). Intercultural communication challenges and strategies for the Thai undergraduate hotel interns. *PASAA*, 59(1), 204–235.

- Jiang, N., Yan-Li, S., Pamanee, K., & Sriyanto, J. (2021). Depression, anxiety, and stress during the COVID-19 pandemic: Comparison among higher education students in four countries in the Asia-Pacific region. *Journal of Population and Social Studies [JPSS]*, 29, 370–383. <https://doi.org/10.25133/JPSSv292021.023>.
- Korol, O. Y. (2020). *Intercultural communication course design: needs and challenges*. Kyiv National Economic University https://ir.kneu.edu.ua/bitstream/handle/2010/33681/smkmo_20_6.pdf;jsessionid=F29EB06B4926A81E7BDF5AAAD73A952B?sequence=1.
- KMUTT (2021). *KMUTT Courses Offered*. Retrieved December 12, 2022, from <https://eds.kmutt.ac.th/en/curriculum/courses-offered/>.
- KMUTT (2021). *KMUTT Roadmap 2021*. Retrieved December 12, 2022, from <https://sustainable.kmutt.ac.th/education-and-learning/>.
- Laksana, D. N. L. (2020). Implementation of online learning in the pandemic covid-19: Student perception in areas with minimum internet access. *Journal of Education Technology*, 4(4), 502–509. <https://doi.org/10.23887/jet.v4i4.29314>.
- Li, J., & Che, W. (2022). Challenges and coping strategies of online learning for college students in the context of COVID-19: A survey of Chinese universities. *Sustainable Cities and Society*, 83,103958. <https://doi.org/10.1016/j.scs.2022.103958>.
- Lo, C. K. (2023). Strategies for enhancing online flipped learning: a systematic review of empirical studies during the COVID-19 pandemic. *Interactive Learning Environments*, 1–29. <https://doi.org/10.1080/10494820.2023.2184392>.
- Nae, N. (2020). Online learning during the pandemic: Where does Japan stand?. *Euromentor Journal*, 11(2), 7–24.
- Onyema, E. M., Eucheria, N. C., Obafemi, F. A., Sen, S., Atonye, F. G., Sharma, A., & Alsayed, A. O. (2020). Impact of Coronavirus pandemic on education. *Journal of Education and Practice*, 11(13), 108–121.
- Pansa, D., Pojanapunya, P., & Boonmoh, A. (2022). Students' perception of classroom learning and emergency online learning during COVID-19 pandemic. *Pasaa Paritat*, 37. 1–23.
- Pewnil, T. (2021). Digital Manners: rules of online communication that Thai digital citizens should be aware of. *NBTC Journal*, 5(5), 401–418.
- Phongsirikul, M., & Thongrin, S. (2019). Developing Intercultural Awareness in ELT: Students' Attitudes toward their Intercultural Learning Experience. *REFlections*, 26(1), 78–114. <https://doi.org/10.61508/refl.v26i1.203947>.

- Poungjinda, W., & Pathak, S. (2022). Educational Reforms Amid COVID-19 in Thailand. *Frontiers in Education*, 7, 1–8. <https://doi.org/10.3389/educ.2022.905445>.
- Renu, N. (2021). Technological advancement in the era of COVID-19. *SAGE Open Medicine*, 9, 20503121211000912. <https://doi.org/10.1177/20503121211000912>.
- SEAMEO Regional Centre for Higher Education and Development. (2021). *The 8th Meeting of the Working Group on Student Mobility and Quality Assurance of Higher Education among ASEAN Plus Three Countries (APT WG)*. Retrieved December 12, 2022, from <https://rihed.seameo.org/the-8th-meeting-of-aptwg/>.
- Suri, H. (2011). Purposeful sampling in qualitative research synthesis. *Qualitative research journal*, 11(2), 63–75. <https://doi.org/10.3316/QRJ1102063>.