EXPLORING TAIWANESE EFL LEARNERS' COMMUNICATION BEHAVIORS AND SOCIAL PRESENCE IN ONLINE CROSS-CULTURAL COMMUNICATION

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ABSTRACT

The development of new media technology facilitates interaction between people of different cultures. However, people from different cultures show different cross-cultural communication behaviors that may influence their communication efficiency, perceived communication experiences, and perceived social presence. This study aimed to explore Taiwanese students' communication behaviors and their perceived social presence in online cross-cultural communication. Nineteen English-major students participated in a 10-week online cultural communication exchange with students from Japan and Colombia. The data were collected from their online interaction postings, an after-study survey, and the teacher's observation journal. Content analysis of the postings and the teacher's observation journal were utilized to identify their online communicative behaviors. Moreover, the survey data were analyzed to examine their perceived social presence. Finally, the results of the questionnaire and interaction data were compared to identify the types of communicative behaviors favorable to social presence development. The results suggested that the Taiwanese students in this study had similar communicative behaviors and shared some with the communicators from some low-context cultures. The more types of communicative behaviors they used in online cross-cultural communication, the better they perceived social presence. Some types of communicative behaviors (e.g., using emoticons or expression symbols, using more expression types, self-disclosing more) seemed to benefit their social presence development more than others.

Key Words: communication behavior, cross-cultural communication, social presence, high-context cultures

INTRODUCTION

New media offer many possibilities for communication with people of different cultures. With their distinctive and unique nature, new media "brought human interaction and society to a highly interconnected and complex level" (Chen, 2012, p.2). New media allows people to interact with others simultaneously through individualized messages during the interaction. It affects not only the form and content of communicative messages but also the way people understand each other during the communication process, particularly those from different cultural backgrounds. Communication media may affect mutual understanding between people of different cultures in different ways (Setlock et al., 2004). How people of different cultural groups adapt and achieve mutual understanding has become a great challenge in online communication.

For Chen (2012), thinking patterns, expression styles, and cultural context influence how people behave in online communication. The three factors are considered a manifestation of cultural values (Chen & Starosta, 2005). Some dimensions of cultural values, such as the distinct communication styles between high- and low-context cultures, have encountered challenges with new media.

According to Hall and Hall (2001), people of different cultures communicate in different ways. In a low-context communication or message, most of the information is in an explicit code. The majority of meaning and information is placed in verbal communication. However, people from high-context cultures tend to communicate implicitly. In a high-context communication or message, most of the information resides within the person, while very little of the information is in the coded, explicit, transmitted part of the message. People of this communication style expect that messages can be understood without the meaning being directly given in verbal communication. Cultural backgrounds also affect how well people are capable of comprehending messages (Hall & Hall, 1990). Based on Hall and Hall's classification (1990), most Asians (e.g., Japan, Korea, and Taiwan) are toward the high end of the cultural context continuum.

As people from high-context cultures communicate more implicitly and indirectly, some communication contexts such as text-

based computer-mediated communication (CMC) environments do not seem to favor their communication. In text-based CMC environments, contextual and nonverbal cues are lacking. People communicate ideas by using explicit words and hope their interlocutors recognize their intention (Atsawintarangkun & Yuizono, 2016). Since communication for people from high-context cultures relies more on information provided by the physical context, text-based CMC chat might cause problems for them. However, East Asians have been found to adapt themselves to this new communication context. They communicated more actively and confidently (High & Caplan, 2009) in text-based CMC, which could stimulate their participation and reduce their anxiety in revealing an authentic self (Bazarova & Yuan, 2013).

In today's globalized world, members of a culture should readjust their communication behaviors and learn new ways of interaction to be able to communicate with people from other cultures in online intercultural communication. As people from diverse cultures use different communication behaviors (Alizadeh Afrouzi, 2021; Oh, 2018), understanding how members of a culture adapt to the new change should be helpful for interlocutors of other cultures to communicate with them in this digital age. To date, little research has explored the communication behaviors of members from East Asian cultures (e.g., Taiwan) in online intercultural communication and the effects of those behaviors on their social presence development; this study was conducted to fill in this gap.

LITERATURE REVIEW

Communication Behaviors and Online Intercultural Communication

Communication Behaviors

According to Norton (1978), individuals adopt habitual patterns/styles in mutual communication, and different styles influence the perceptions of individuals in their communication settings. One's habitual communication pattern, known as his/her communication style, may be constant in one context but can change

across contexts.

The emergence of new media offers new opportunities and contexts for people of different cultures to connect through the Internet and affects the form and content of people's messages (Chen, 2012). The use of such online messages has contributed to the development of new communicative behaviors of communicators (Veytia-Bucheli et al., 2020). To achieve mutual understanding in online communication, people across cultures have to realign their communication behaviors to rearrange or restructure their cultural patterns and interact in new ways. Even within a culture, new media generates a new culture, which results in a continuity gap between traditions and innovations (Chen, 2012). Such a cultural gap has made it difficult for people of the same culture to understand or communicate with each other.

Previous research (e.g., Kim, 1999, Menon & Fu, 2005) has identified differences in communication styles and preferences for effective communication styles between people from Western and East Asian cultures. According to Kim (1999), people from East Asian and Western cultures perceived appropriate communication styles differently, and their perceptions affected their communication behaviors. Wang (2007) also echoed this perspective. He suggested that cultural identity and communication styles strongly affected online learners' behaviors, engagements, and interactions. Cultural differences, referring to general patterns of cultural values, attitudes, and communication behaviors connected to specific sets of individuals (Oetzel et al., 2001), affect online learners' behaviors (Brazill, 2019).

Intercultural Communication in Online Contexts

Research in intercultural communication suggests that East Asians tend to adopt less confident and argumentative ways of expression compared to Westerners due to higher communication anxiety (Kim, 1999). Moreover, East Asians may deliberately stop expressing their authentic selves by exercising restraint in expressing personal opinions and feelings to maintain their positive social image, group harmony, and solidarity (Brazill, 2019; Menon & Fu, 2005).

The above-identified differences in previous research may need to be re-investigated in new circumstances. Increasingly more scholars have been exploring the effects of new media on people's interaction in intercultural communication (e.g., Pfister & Soliz, 2011; Shuter, 2011). They have been urging intercultural scholars to re-conceptualize their understanding of intercultural communication in a digital age. New media affects the understanding of people, particularly those from different cultural or ethnic groups, of the communication process (Chen, 2012).

Interlocutors' native language and culture form their cultural mindset that influences their communication style and interpretation of textual interaction (Gunawardena & Zittle, 1997). Interlocutors from different cultures may perceive the same textural message in different ways, which may cause misunderstanding in the communication process. Reducing such misunderstanding becomes a great challenge for interlocutors in online textural intercultural communication.

However, people with high communication anxiety were found to feel more at ease expressing their opinions and communicating more actively and confidently in text-based CMC than in face-to-face (f2f) due to a lack of contextual and nonverbal cues (High & Caplan, 2009). Bazarova and Yuan (2013) examined Chinese and American collaboration, suggesting that the use of lean media, such as text-based CMC where nonverbal cues are absent, may lead to more desirable and effective collaboration than the use of f2f where both verbal and nonverbal cues are available. Their finding implied that intercultural collaboration could benefit from the use of multiple media.

New media promotes a new culture in today's society. Ambiguity and uncertainty levels in this new context reached the highest point, particularly during intercultural communication (Chen, 2012). Since it is important to understand how people from different cultural groups adapt to the new change and achieve mutual understanding in their communication, this study was conducted to gain insights into how Taiwanese EFL learners from a high-context culture interact with different cultural groups in this new digital age.

Social Presence and Online Intercultural Communication

Social Presence

Garrison et al. (2000) defined social presence as "the ability of participants in a community of inquiry to project themselves socially and emotionally, as 'real' people (i.e., their full personality) through the medium of communication" (p. 94). According to Walther (1992), "social presence is the feeling that others are jointly involved in communicative interaction" (p.53). Communicators' mutual behaviors can affect their social presence (Biocca & Harms, 2002). Closely related to individuals' behaviors (Jung et al., 2002; Tu & Mclsaac, 2002), social presence helps build interaction between community members in online learning environments. When meaningful social interaction occurs, learners can demonstrate positive communicative behaviors (Weidlich & Bastiaens, 2017).

In an online communication environment, participants can build up their persona through language use, become "real" to others, and perceive others as "real" participants through written discourse (Abdullah, 1999). Without gestures, facial expressions, or intonation, interlocutors can only use language to convey ideas, express emotions, or make jokes in a text-based CMC environment (Yildiz, 2009).

Social Presence in Online Intercultural Communication

For individuals from low-context cultures, direct and explicit expression plays a key role in effective communication. However, for communicators from high-context cultures, understanding unspoken rules of engagement and indirect implicit communication is more important (Brazill, 2019). Tu (2001) suggested that learners from low-context cultures can engage in online text discussion more fully because of their limited use of nonverbal language and their tendency to utilize words to carry meaning. Based on the above suggestion, we could infer that text-based CMC environments favor low-context learners' discussions more than high-context ones. A similar view has been also suggested by Ou et al. (2016).

However, Yildiz (2009) found that the social presence that five EFL learners (three from Taiwan, one from Denmark, and one from

Turkey) displayed in a text-based CMC context was similar to native English learners' social presence. Text-based CMC lacking social cues allows learners to enhance their social presence in continuous communication through emotional expressions, such as emoticon use (Yamada, 2009). Derks et al. (2008) argued that non-verbal devices can transmit social meaning (e.g., feelings) from person to person, and social presence plays a key role in the transmission process.

Although low-context learners seem to be better at using words to communicate in text-based CMC, the use of emotional expressions, such as emoticons or emojis, can enhance high-context learners' expression abilities, generate empathy, strengthen confidence, and help communicators understand messages (Veytia-Bucheli et al., 2020) in intercultural communication. Overcoming language barriers and using emotional expressions allow learners to convey their feelings and recognize their interlocutors' emotional states, which can reduce their communication anxiety and increase their confidence in communication (Hampel, 2006; Ko, 2012; Veytia-Bucheli et al., 2020; Yamada & Akahori, 2007).

Emotional expressions can be beneficial to social presence development (Catalano & Barriga, 2021; Ko, 2012; Tang & Hew, 2017; Veytia-Bucheli et al., 2020) even though communicators from different cultural backgrounds may interpret them differently (Fane, et al., 2018). For example, one British learner in Ruan and Medwell's study (2020) pointed out that the use of emojis could give further explanation to words and "help to avoid confusion and misinterpretation in text-based conversations" (p.369). Online communicators can create their persona through language (Abdullah, 1999) or emotional expressions (Veytia-Bucheli et al., 2020), strengthening their presence as real participants.

Oh et al. (2018) suggested that communication contexts and communicators' characteristics could influence social presence in online environments, which may yield differential communication outcomes. In online intercultural communication, interlocutors from diverse cultures use different communication behaviors, some of which might be beneficial to social presence development. However, few studies have explored this topic until now. Therefore, this study aimed to fill in this gap and investigate communication behaviors that

may be favorable to social presence development. The proposed research questions are as follows:

1. What are the communication behaviors of Taiwanese EFL learners in online cross-cultural communication?
2. How do they perceive social presence in this online cross-cultural communication?
3. What communication behaviors are beneficial to social presence development?

METHODOLOGY

Participants

The participants in this study were 19 Taiwanese English-major students who studied at a university in Southern Taiwan. Twelve of them were females and seven were males. They took a cross-cultural communication course taught by the researcher. They were senior students whose ages ranged from 20 to 23 and who had been learning English for over ten years. Their English proficiency level ranged from upper-intermediate to advanced, as decided by the General Scholastic Ability Test administered as the Taiwanese university entrance exam. All of them possessed basic computer skills and had social networking experiences before the study.

Procedure

The participants took part in a 10-week asynchronous online text-based cultural communication exchange, the aim of which was to have EFL learners of different cultures explore others' cultures and gain an intercultural communication experience, via the Moodle system with students from Japan and Colombia during an academic semester. They could have access to the system at any time and place after successfully registering in the system.

Before the study, the teacher/researcher trained the participants to use the system properly and then grouped them randomly with different Japanese and Colombian students who were unfamiliar with

the participants at the beginning of the study, and whose language proficiency levels varied from intermediate to advanced according to their teachers. In each group of approximately twenty students, only one Taiwanese student was randomly assigned.

Subsequently, they took part in online intercultural discussions on four topics: 1) introductions, 2) cultural activities in their countries, 3) jobs and workplaces, and 4) free time, relationships, and entertainment within ten weeks. The discussions for each topic lasted around two weeks. The instructors whose students joined this online intercultural communication selected topics that were identical for all students.

Data collection and analysis

The students' online interaction postings, an after-study questionnaire, and a teacher observation journal were used to collect the data. SPSS software was used to analyze the data from the after-study questionnaire, adopted from Richardson and Swan's survey instrument (2003) measuring students' perceptions of social presence within an online course. However, the questionnaire items were modified to correspond with the intercultural communication experience in this study. The Cronbach's Alpha of this questionnaire was 0.76, which is considered acceptable in SPSS (Salkind, 2006).

The first section of the questionnaire consisted of six general demographic items. The second section consisted of nine Likert-type items intended to assess students' perceptions of social presence in this online cross-cultural experience. Students were required to indicate the degree to which they agreed with each statement on a six-point response scale (1=strongly agree to 6=strongly disagree). The lower degree they indicated on the scale, the higher level of social presence they perceived.

Content analysis was used to analyze students' online interaction postings, the number of which was 374 in total. Defined as "a research methodology that builds on procedures to make valid inferences from text" (Anderson et al., 2001), textual analyses typically involve comparing, contrasting, and categorizing a set of data and include both numeric and interpretive data analyses

(Schwandt, 1997). One important step of this method is to develop categories and indicators that researchers can use in transcript analysis (Rourke et al., 2001). Content analysis was selected because this technique aims to reveal information "that is not situated at the surface of the transcripts" (De Wever et al., 2006, p.2) and is usually used to identify patterns in recorded communication (Luo, 2019), which meet the purpose of this study. The teacher's observation journal was also used to triangulate data (George, 2023), which could provide a more complete picture of the current intercultural communication experience.

After textual analysis involving developing the set of categories and indicators for coding, the students' interaction postings were coded into numeric categories by calculating the occurrence of certain words, phrases, and concepts (Luo, 2019), and the Pearson correlation coefficient was used to see the relationship between types of communicative behaviors and social presence development.

FINDINGS

Regarding the first research question, the content analysis of the students' online interaction postings and the teacher's observation journal showed that the Taiwanese students shared some similar communicative behaviors in this online intercultural communication. The behaviors were grouped into the following indicators classified under the interactive, affective, and cohesive categories (see Table 1). Those behaviors that were shared by the students but did not seem to benefit intercultural communication were put in the category of 'other behaviors'.

Table 1

Indicators and Examples of Learners' Online Communication Behaviors

Communicative behaviors /category	Examples (Ex.)
Interactive category	**Behaviors existing in Rourke et al.'s template**
Ask questions	- Discover more about others Ex.: *What's your future plan?* - Ask for others' opinions/thoughts Ex.: *In your opinion, what is the most difficult part of this job?* - Ask for more information Ex.: *What's the local food of your country?* - Ask for suggestions/recommendations Ex.: *Can you recommend any other cartoon or TV drama to me?* - Ask for clarification Ex.*: What's the flavor of the ice cream in your picture?* - Ask for further interaction Ex.: *I like to listen to trap, house, and dubstep music, would you share some of your favorite songs with me?*
Express agreement	Ex.: *I really agree with your opinion that we should do the job we love.*

Communicative behaviors /category	Examples (Ex.)
Express compliments	Ex.: *The meaning of your name is beautiful.*
Express appreciation	Ex.: *I really appreciate your thoughts.*
Interactive category	**Behaviors non-existent in Rouke et al.'s template**
Show having something in common	Ex.: *I like swimming too./I also like watching movies./And I don't like cockroaches either.*
Show admiration	Ex.: *I really admire what you do in your job.*
Give blessings	Ex.: *I sincerely hope that you can achieve your dreams.*
Express expectations	Ex.: *I'm looking forward to your reply.*
Show interest in others and others' culture	Ex.: *Could you tell me the reason why you like horses? I really want to know it.*
Apologize	Ex.: *I am sorry, I haven't watched Colombian movies before.*
Give suggestions/ recommendation	Ex.: *I think you can try to listen to jazz when you feel stressed, which can make you feel relaxed.*
Affective category	
Express emotions	- Emoticon Ex.: ☺ - Emotional expressions Ex.: *You are welcome! Your hobbies are cool, but cooking is quite hard for me. lol /* *You really did a great job. XD* - Use bigger word size (used by few of them)

Communicative behaviors /category	Examples (Ex.)
Disclose themselves	Ex.: *I'm curious and afraid of facing it in the future.*
Use of humor	(Not found in the current data)
Cohesive category	
Refer to participants by name	Ex.: *Hello ~Kelly~*
Phatics, salutations – greeting, closure	Ex.: *Hello, nice to meet you.*
Address or refer to the group by using inclusive pronouns	Ex.: *I like to sleep, read, eat, walk, ride, and listen to music, too. We have many similar hobbies.*
Other behaviors	
Use Chinese characters	Ex.: *I know that "matcha"(抹茶) is famous in Japan.*
Reveal general information about themselves	(used by all of them)
Post short messages with images	(used by all of them)
Avoid discussing personal topics	(used by most of them)
Keep default characters and font sizes	(used by most of them)

Interactive Behaviors

After data analysis, it was found that the following communicative behaviors could fall into the 'interactive' category of Rourke, et al.'s' (2001) template for assessing the social presence where the interactive responses are used to "build and sustain relationships, express a willingness to maintain and prolong contact, and tacitly indicate interpersonal support, encouragement, and acceptance of the initiator" (p.7). Therefore, they were grouped under the category named 'interactive'.

Rourke, et al.'s (2001) template was developed based on the very influential Community of Inquiry (CoI) model of Garrison et al. (2000), the most dominant measure in the CoI research community. This model centers around social presence, cognitive presence, and teaching presence, which were three essential components of the CoI for developing a complete online educational experience (Kreijns, et al., 2022).

- Ask questions

The students asked a lot of questions of their interlocutors in their postings to keep the discussion going. They posed questions to learn more about others or asked for others' opinions/thoughts, further information, suggestions or recommendations, and clarification. Those question examples can be seen in Table 1.

- Show agreement

Example 1: I agree with your opinion that we should do the job we love.

- Express compliments

Example 2: The meaning of your name is beautiful.

- Express appreciation

Example 3: I appreciate your thoughts.

Other communicative behaviors found in their postings that could be classified into the interactive category were to give blessings and expectations, which were not presented in Rourke et al.'s (2001) template.

- Using common expressions to show having something in common

Their postings contained some common expressions. For example, many of them used expressions such as "like … as well" (11 among

them), "not … either" (7), and "am … too/ also/ similar" (14) to show that they had something in common with their interlocutors.

- Show admiration

Example 4: I admire what you do in your job.

- Give blessings

Example 5: I sincerely hope that you can achieve your dreams.

- Show expectations

Example 6: I'm looking forward to your reply.

- Show interest in others and others' culture

Example 7: Could you tell me the reason why you like horses?

- Give apologies

Example 8: I am sorry. I haven't watched Colombian movies before.

- Give suggestions or recommendations

Example 9: I think you can try to listen to jazz when you feel stressed, which can make you feel relaxed.

Affective Behaviors

In addition to words, six participants used emoticons to help express emotions, while eight used emotional expression symbols (e.g., :) = smile). To show their affection, some also disclosed themselves in their postings, which frequently appeared in Rourke et al.'s (2001) data. The above expressions were classified in the affective category and included the expression of emotion, feeling, and mood using emoticons, humor, and self-disclosure in the original template.

Cohesive Behaviors

Regarding the cohesive responses, communicative behaviors such as phatics or salutations appeared very frequently in the current postings. The students also addressed their interlocutors by name in their postings. However, few students addressed or referred to the group using 'we' or 'us'. These expressions, classified in the cohesive category in Rourke et al.'s (2001) template were exemplified by activities building and sustaining a sense of group commitment.

Other Behaviors

The following behaviors appeared frequently in the students' postings but did not seem to benefit intercultural communication.

- Reveal general information about themselves

Unlike their foreign counterparts, the students seemed embarrassed to talk about themselves while being asked to introduce themselves. Among 19 students, almost all of them shared general personal information (e.g., country (13), age (10), interests (17), places of residence (7), major (7)) under the topic of the 'self-introduction'. Only six posted their images beside their name in the discussion forum. Among the six who did, one used an avatar, and two used their Chinese names to represent themselves.

- Post short messages with images

In their postings addressing the other three topics, they tended to generate short messages. Instead of words, most used images to express their thoughts and opinions. However, all of them (except one) rarely posted personal images. The images they posted were more about their pets, the countryside, favorite singers, favorite movies, or food. They occasionally posted messages or images unrelated to the discussion topics.

- Avoid discussing personal topics

It appeared that participants were more comfortable discussing impersonal topics (e.g., hometown, culture) than personal topics (e.g., self-introduction), as the number of words was greater when describing the former topic. Familiarity with their exchange partners also had some effects on the length and depth of their discussions. Although they initially avoided sharing personal opinions, they expressed more after building relationships with some of their interlocutors. They also generated deeper discussion in their later postings.

Moreover, some students included Chinese characters in their postings, although they were aware that their foreign counterparts did not know the language. Unlike their interlocutors, most Taiwanese students kept using default characters and font sizes.

Regarding the second research question about their perceptions of social presence, the questionnaire findings showed that they perceived high social presence (mean=2.34) (See Table 2). They had positive perceptions of the Moodle platform used in this study (mean=2) and felt comfortable conversing (mean=2.41) and interacting with (mean=2.24) their counterparts. They also believed online interaction enabled them to form a sense of online community (mean=2.41) and agreed that their counterparts accepted their opinions (mean=2.29). However, they only somewhat agreed that the communication allowed them to form clear perceptions of their communicators (mean=2.76). Yet, most agreed that the teacher's involvement could benefit their perceptions of being a member of the community (mean=2.12), and they tended to view that this exchange experience met their learning expectation (mean=2.35).

Table 2

The Data Collection Procedure Perception of Social Presence Questionnaire Results

	Mean	SD	Variance
1. Social interaction platforms such as Moodle are an excellent medium for social interaction	2.00	.791	.625
2. I felt comfortable conversing through Moodle.	2.41	.712	.507
3. The interaction through Moodle enabled me to form a sense of online community.	2.41	.795	.632
4. I felt comfortable interacting with other participants in the Moodle discussion.	2.24	.437	.191
5. I felt that my point of view was acknowledged by other participants in the Moodle discussion.	2.29	.470	.221
6. I was able to form distinct individual impressions of my partners through Moodle discussion.	2.76	.903	.816
7. Online discussions increased my level of learning quality.	2.47	.717	.515
8. Overall this course met my learning expectations.	2.35	.786	.618
9. The instructor created a feeling of an online community.	2.12	.600	.360
Mean	2.34		

Concerning research question three about the communicative behaviors favorable to social presence development, the two variables (communicative behaviors and perceived social presence) were found to be strongly correlated, r (15)= -.65, $p < 0.01$. (Table 4). A comparison of the results of the questionnaire and interaction data showed that the students who used more types of communicative behaviors in their intercultural communication (e.g., used emoticons or expression symbols, used more expression types, self-disclosed more) had better perceptions of this communication experience and their partners (see Table 3). Those who used fewer types of communicative behaviors in their communication (e.g., never asked

questions, typed short messages, replied less often, or posted messages late) tended to have worse perceptions of this experience and their partners.

Table 3

Individual Learner's Perception of Social Presence (SP) and the Number of Types of Communicative Behaviors Used in their Postings (Af. =Affective, In. =Interactive, Co. =Cohesive, T=Total)

Student	Mean of SP	N of Af.	N of In.	N of Co.	T	Personal Picture (pic.) or avatar
A	2.22	2	8	2	12	pic.
B	2.67	2	6	3	11	
C	2.00	3	7	5	15	pic.
D	2.44	3	5	3	11	
E	1.67	3	6	4	13	
F	2.00	3	7	4	14	pic.
G	2.11	3	5	4	12	
H	2.67	1	3	3	7	
I	2.67	2	5	3	10	
J	2.56	1	5	3	9	
K	2.00	1	5	4	10	
L	2.67	1	7	2	10	
M	2.67	0	4	4	8	
N	2.22	1	6	4	11	pic.
O	1.67	2	7	3	12	avatar
P	3.22	1	6	3	10	
Q	2.33	2	5	3	10	
Mean	2.34					
Total		31	97	57	185	
%		16.8	52.4	30.8	100	

Table 4

Correlation between Learners' Communicative Behaviors and Their Perceived Social Presence

Correlation			
		SP Mean	N of Types of CB
SP Mean	Pearson Correlation	1	-.651[**]
	Sig. (two-tailed)		.005
	N	17	17
N of types of CB	Pearson Correlation	-.651[**]	1
	Sig. (two-tailed)	.005	
	N	17	17

**Correlation is significant at the 0.01 level (two-tailed).

The interaction records and the teacher's observations also revealed that Taiwanese students being from a high-context culture tended to reply first to the postings with images after the start of a new topic. Moreover, their counterparts' postings with more images seemed to attract more of their attention. However, they did not necessarily put the same number of images in their original postings, especially personal images.

DISCUSSION

The above findings indicate that the Taiwanese students shared some communication behaviors. They felt at ease talking about impersonal topics and embarrassed to reveal personal information or share personal images. Their messages were mostly short, and images were frequently used to support further explanations of their short messages, which supports Kang and Chang's (2016) suggestion that high-context learners favor personal communication by using nonverbal and visual forms of communication methods. However, familiarity played a key role in their intercultural communication. They tended to produce longer and more meaningful messages after

becoming familiar with their counterparts.

Although people using an avatar could allow their interlocutor to perceive a high level of social presence in online communication (Smith & Neff, 2018), only one student among 19 used it to represent himself in this intercultural communication experience.

In addition, they shared some prevalent types of communicative behaviors to prolong the interaction, such as asking questions, agreeing, complimenting, and showing appreciation, among others. The above behaviors could closely correspond to the interactive indicators of Rourke et al.'s social presence scale (2001), originally developed to assess the level of social presence in online classes. The original interactive category also included two indicators: quoting from others' postings and referring explicitly to others' messages. Although the two types of behaviors were also found in the students' postings, they rarely appeared in them.

The other types of communicative behaviors found in their postings that could be classified into the interactive category were apologizing, showing they have something in common, showing admiration, giving blessings, expressing expectations, showing interest in others and their culture, and giving suggestions/recommendations. None of the above were present in Rourke et al.'s (2001) template. As Kang and Chang (2016) indicated learners from high-context cultures "need more for togetherness than their peers from low-context cultures" (p.789), the "showing something in common" behavior could be viewed as the way that Taiwanese learners of this study used to build up a sense of togetherness with their international counterparts.

Moreover, two types of other communicative behaviors – expressing emotions and disclosing information about themselves – appeared in the Taiwanese students' postings. They were classified in the affective category of Rourke et al.'s template. The original template also included one other indicator, 'use of humor,' which did not appear in the messages in the current study. Jiang et al. (2019) pointed out that Easterners such as the Chinese do not hold a positive attitude toward humor as their Western counterparts do. Chinese tend to use less humor but use it in coping with face threats. This might explain why the Taiwanese participants in this study did not use

humorous words in this intercultural experience.

In addition, although the Taiwanese students performed a lot of phatics and salutations, they rarely referred to others by name or used inclusive pronouns such as 'we'. This finding is contrary to previous studies (e.g., Setlock et al., 2004) that have suggested that Chinese people appeared to value the relationship-building aspect of interpersonal communication highly through greater use of 'we'.

The above discussions suggest that the Taiwanese students shared some similar communicative behaviors with Western students' as the data in the study of Rourke et al. (2001) was situated in Western contexts. However, this study identified some differences that might cause communication difficulties or misunderstandings between students from Taiwan and Western countries, which warrants further study. Moreover, the teacher/researcher observed that one student expressed "Thank you!" in almost all her postings, which might appear odd to students from Western countries.

Considering the learners' perception of social presence in this online communication experience, we found that the learners who used more types of communicative behaviors had a better perception of social presence in this experience. Compared to others, Participants C, E, F, K, and O had higher social presence. Among them, Participants C and F performed 15 and 14 types of communicative behaviors, respectively. Their types of communicative behaviors in all three categories [Participants C – 3 (affective), 7(interactive), 5(cohesive); Participant F – 3 (affective), 7(interactive), 4(cohesive)] were higher than those of all the others.

Moreover, the above-mentioned five participants tended to use more emoticons or emotional expressions. Among them, Participant E, whose social presence was one of the highest (SP=1.67), used 32 emoticons and three emotional expressions in all her interactions, Participant C used 12 emoticons and six emotional expressions, and Participant F used 16 emoticons and four emotional expressions. Participant F also shared her photos in her messages. Others did not perform such behaviors during this intercultural communication experience. Furthermore, all five above-mentioned participants self-disclosed more in their postings, supporting Swan and Shih's (2005) finding that high social presence learners use more self-disclosure in

their online interactions. However, no participants in this study used humorous words in their messages.

Regarding interactive behaviors, the findings revealed that Participant K asked their interlocutors the largest number of questions (14), followed by Participant E, who asked 13 questions, and Participants C and G asked the same number of questions (11). All four participants' social presence was above the mean social presence (2.34). Although Participant P was found to ask many questions in his postings, all his questions ended with a period rather than a question mark, which might have confused his interlocutors; therefore, he might not have gotten the replies he expected. This seemed to influence his motivation to participate, which could be one reason to explain why his social presence was the lowest.

It was also found that the participants with higher social presence took part in this online communication more regularly and frequently, using diverse types of communicative behaviors to interact with their interlocutors. The most frequently used terms were "like … as well," "either," "am … too," and "also," which implied that they have something in common with their counterparts. They also used a lot of praising words to compliment their interlocutors on what they have shared, grateful words for their information or replies, and supportive words showing their agreement with their opinions. The above behaviors were found in Rourke et al.'s (2001) interactive category as well.

Nonetheless, the data showed that the participants with higher social presence also used blessing words to encourage their interlocutors and curious words to show their interest in them and their cultures. They were also more willing to share their cultures with their interlocutors. All the above behaviors were not presented in the original social presence template but seemed to enhance social presence development.

Regarding cohesive behaviors, the data revealed that the participants with higher social presence addressed their interlocutors by name frequently in their replies, and used a lot of salutations to greet them or close their message. Only Participant C used inclusive words such as "we, us" to address the group in her messages.

Based on the above discussion, we found that Taiwanese EFL

students shared with Western students some behaviors also identified in Rourke et al.'s study (2001) but also expressed some different ones. According to Smith and Neff (2018), similar communicative behaviors can enhance social presence. Those similar behaviors beneficial to enhance the learners' social presence development included using more emoticons or emotional expressions, self-disclosing more, asking more questions, taking part in communication more regularly and frequently, using praising words, grateful words, and supportive words, addressing others by name, and using salutations.

Those different behaviors included not using humor (affective), not quoting from others' messages or referring explicitly to others' messages (interactive), and not using inclusive pronouns (cohesive). Only the high social presence learners in Swan and Shih's study (2005) utilized the latter two behaviors. Such differences in expressions might cause misunderstandings in intercultural communication between communicators from low-context and high-context cultures, which warrants further investigation in future studies.

Lastly, the behaviors that the participants used in this study but did not exist in the indicator list of the original template, such as using curious words to show interest in foreign cultures, using blessings to encourage their counterparts, and being open-minded to share their cultures, seemed to benefit social presence development.

CONCLUSION

The above discussion suggests that although the Taiwanese students were from a high-context culture, they shared some common communicative behaviors with those in Rourke et al.'s study (2001) from low-context cultures in an asynchronous, text-based CMC environment. Some of them seemed to use more types of communicative behaviors to keep communication interactive and fewer types of communicative behaviors to maintain affection and cohesion in communication. Different communication contexts (Chen, 2012) might be one of the reasons that cause the above differences.

In Rourke et al.'s study, the interlocutors of the participants were

from two graduate-level courses in a Canadian university, and the content of the interaction was issues or theories related to courses. However, the interlocutors of the participants in this study were students from Japan and Colombia, and the content of the interaction was about introducing and exploring each other's cultures. Familiarity with interlocutors and discussion topics might affect the participants' communicative behaviors, which did not appear to be influenced by their interlocutors' cultural backgrounds.

Despite the differences, the participants who perceived higher social presence performed more communicative behaviors listed in Rourke et al.'s indicator list of social presence, enhancing the validity of the original scale. However, the results of the current study should be interpreted with caution due to its small scale. It is worth further examining whether the current findings apply to other Taiwanese participants in different contexts. In addition, this study only looked at Taiwanese students' communication behaviors in specified online communication. Future researchers could explore the applicability of the current findings to participants from other high-context cultures, given that the original cultural backgrounds of students seemed to influence their communicative behaviors. Such investigation could benefit mutual understanding in cross-cultural communication. Finally, this study did not examine how this exchange experience affected the students' language skills. Future studies could assess the aspect of language skills that learners acquire through cross-cultural exchanges.

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