

# Exploring Taiwanese college students' perceptions of text-based, computer-mediated communication technology in learning Japanese as a foreign language

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Regular Paper

*The use of computers as an educational tool has become very popular in the context of language teaching and learning. Research into computer mediated communication (CMC) in a Japanese as a foreign language (JFL) learning and teaching context can take advantage of various pedagogical possibilities, just as in the English classroom. This study investigates the perceptions of CMC tools held by JFL students in Taiwan. It also examines utterance length and a feature of their online writing, the use of final particles in Japanese. The overall results indicate that the use of text-based CMC tools has positive effects, and is also perceived positively by the JFL learners. The pedagogical implications are that CMC tools can be especially beneficial when integrated within an instructionally-oriented JFL course.*

**Keywords:** computer mediated communication (CMC), text-based, L2, Japanese

## Introduction

Computers have become very popular in the context of foreign language (FL) teaching and learning because of their usability, which means they are easy to learn and use, and that it is easy to understand their effects (Liu, Liu, & Hwang, 2011). The development of the internet and local area networks (LANs) has helped to expand the use of computer mediated communication (CMC) in the language classroom (Darrell, 2006). CMC generally refers to a variety of forms of communication that occur through the medium of computers, including text-based chats, email, blogs, bulletin board system/service (BBS), audio/video conferencing, social networking sites and

Virtual Learning Environments. The most salient feature of CMC with regard to the current study is that it enables language learners to communicate with an unspecified, large number of people from all over the world outside of the classroom. This new type of communication has thus been widely applied to the field of FL acquisition (Goertler, 2009; Levy, 2009; Okuyama, 2005).

Extensive research on CMC in English and other alphabetic languages has been undertaken in relation to linguistics over the past decade (e.g., Kessler, 2009; Kessler & Bikowski, 2010; Louw, 2008; Murphy, 2010; Yoon, 2008). In addition, studies of non-English languages, such as Chinese and Japanese have also been carried out (e.g., Kitade, 2008; Motohashi-Saigo & Hardison, 2009; Nishimura, 2003, 2010; Zhang, 2009). Moreover, according to the Internet World Stats, the worldwide population of Japanese internet users (3.9 % in December 2013) ranks in the sixth place after English (28.6 %), Chinese (23.2 %), Spanish (7.9 %), Arabic (4.8%) and Portuguese (4.3%) (Miniwatts Marketing Group, 2013 cited in <http://www.internetworldstats.com/stats7.htm> accessed March 2015). The increasing number of internet users in Asia suggests that more and more websites will be written in non-English languages (Bovee & Cvitkovic, 2010). Therefore, this study on CMC in Japanese as a foreign language (JFL) learning and teaching takes advantage of the various educational opportunities that now exist in the Japanese classroom, especially in an online context.

When FL learning and teaching are the focus, all four major language skills – reading, writing, listening and speaking – are involved, along with sub-language areas such as grammar, vocabulary, pronunciation and culture (Levy, 2009; Liu *et al.*, 2011). This study focuses on text-based CMC in comparison with face to face (F2F) conversations, because the former is regarded as the most common form and has shown the greatest differences when the various types of CMC are compared to F2F communication (Derks, Fischer, & Bos, 2008). New text-based CMC tools have also become increasingly important in teaching and learning FL writing. However, most of the current research on CMC in the context of FL learning focuses on learning English, and this work should thus be extended to other languages. Therefore, this study investigates the experiences and perspectives of text-based CMC tools by JFL learners in Taiwan. It also examines utterance length and one feature of their online writing: the use of final particles.

## The characteristics of CMC

When compared with F2F interactions in educational settings, text-based CMC displays characteristics along the following four dimensions: synchrony, audience or participation, identity and collaboration. First, CMC text handling includes synchrony, retrieval and storage (Pfaffman, 2008). In terms of synchrony, text-based CMC tools can be categorized as one of two types: synchronous and asynchronous. Synchronous communication refers to online instant communication, such as online text chats and social networking sites. The use of synchronous tools has significant effects on the nature of a spontaneous communication, as exchanges can occur without delay (Pfaffman, 2008). Synchronous CMC tools can thus help to develop learners' language production with regard to fluency. For instance, online chats allow participants to converse with one or more persons via computers in real time. As in F2F conversations, learners will maintain the flow of text-based conversation and focus on rapid output or modifying their utterances to increase mutual understanding, resulting in fluent communication (Bower & Kawaguchi, 2011). In addition, synchronous text-based chats provide a record of interactions which learners can refer to later. There is

thus an opportunity to obtain language feedback from instructors or peers, as well as self-correction of linguistic errors (Bower & Kawaguchi, 2011; Sharma & Barrett, 2007). Web-text chat thus has the characteristics of both spoken and written forms of communication.

Asynchronous communication includes all communication that occurs with a time lag, such as that seen in emails, blogs and wikis. Asynchronous CMC can provide an environment where learners can spend more time producing the target language and focusing on accuracy, while also enabling the recording of data for later analysis and feedback. In this way asynchronous exchanges can help students to think deeper and develop more critical thinking abilities, unlike communication in a synchronous environment, in which immediate responses are required (Angeli, Valanides, & Bonk, 2003). Indeed, research has shown that participants tend to engage more profoundly in asynchronous discussions than synchronous ones (Paulus & Phipps, 2008).

A second feature of CMC technology is that CMC users can make a decision regarding the openness of discussions (Pfaffman, 2008). CMC tools can be open to a much wider audience, as seen in blogs as opposed to email, for which users must decide to whom and when to send a message. Blogs usually have a high percentage of text and can be easily linked to create online communities, and they can be created and managed by individuals as well as groups. A blog can be described as an online journal, but “it [also] combines the interactivity of speech with the performance of writing” (Warschauer, 2010, p.3). One feature of blogs is that they are more dominated by main authors and are less frequently updated than ordinary websites. Blogs have become very popular in recent years because they are easy to access and use, without the need to learn how to write HTML (Godwin-Jones, 2003; Warschauer, 2010). In addition, most social networking sites provide a blog function. For example, Ameba BLOG is a popular blogging platform within the *Ameba* social networking site in Japan. The use of blogs in the foreign language classroom has been shown to be beneficial to L2 learners, because they provide an opportunity for such individuals to practice their skills in the public eye and become more competent at academic writing (Warschauer, 2010).

Thirdly, unlike F2F conversations, CMC may involve known, anonymous or pseudonymous participants (Pfaffman, 2008), with anonymous activity allowing freer expression on the behalf of the participants. Tidwell and Walther (2002) compare CMC and F2F discussions, and find that CMC groups tend to elicit or disclose more personal information, due to the fact that visual and spatial information are not available to interlocutors in this form of communication. In addition, CMC participants are more likely to ask for the “age”, “gender” and “location” of others in chat rooms, which is considered rude in the context of F2F conversations (O’Connor & Ross, 2004). The most popular social networking site in the world is currently Facebook, where “users can post their profile, invite/list/reject friends, reveal information about themselves” (Goertler, 2009, p.79). Similarly, Mixi is one of the best-known Japanese social networking sites, providing multiple services such as sending/receiving messages, writing a diary, organizing/joining communities, and so on (<http://en.wikipedia.org/wiki/Mixi> accessed December 2014). The purpose of engaging in social networking sites is usually to create new relationships, and then communicate and foster friendships with other members of the virtual community. When developing new relationships, providing personal information – including photos and video images – is generally the first step for new users, and the information thus shared “can impact the willingness [of others] to build future relationships” (Wang *et al.*, 2010, p.226). CMC tools allow the use of pseudonyms and visual anonymity, which may result in participants disclosing positive

information and minimizing the negative effects of visual cues. This virtual environment may facilitate the use of FL for learners because of the lack of self-awareness that it fosters.

Finally, CMC enables participants to produce texts in groups (Pfaffman, 2008). Wikis and certain other web-based applications provide a space for collaborative writing or group work, and the Wiki environment facilitates autonomous learning in L2 (Kessler, 2009; Kessler & Bikowski, 2010). While discussion forums and email require some performance of tasks outside of CMC contexts, wiki users are able to complete texts by replacing the work of a previous user in a process of revision (Kessler, 2009). Indeed “a contribution is not a comment or response (as it might be in a blog), but an alteration to the previous contribution” (Kessler, 2009, p.80). Having said that, the nature of group work may create unmotivated participants who provide few contributions to texts, and wikis “only work with users serious about collaborating and willing to follow the group conventions and practices” (Godwin-Jones, 2003, p.15). Autonomy thus plays an important role in this new language learning setting, especially during collaborative learning, and developing this in students is a critical issue for language instructors.

Although CMC takes advantage of selecting participants, identity and collaborative work on the computer, it lacks non- and para-linguistic features such as eye contact, nods, intonation and pitch, which are usually employed in F2F communication (Smith, 2003). However, the features of a CMC tool are often multidimensional, and those that are used depend on the user’s aims with regard to a given task. Blogs, for instance, can be “anonymous” if a user does not want others to know their identity, or they can contain links to the author’s personal details.

### Linguistic features of text-based CMC in Japanese

While there is a huge gap between spoken and written language in Japanese, text-based CMC such as chats, blogs and BBS, can be used in ways that allow users to integrate spoken styles into written messages. Nine features of informal F2F conversation in Japanese are fragmentation of talk, final particles, fillers, ellipsis, postposing, verb morphology (plain / polite), sentence-final forms, insertion of meta-communicational remarks, propositional twisting, questions as conversational elicitors and rhythmic ensemble (Maynard, 1989, p.23–24). Danet and Herring (2007, p.164) point out that such features in informal spoken Japanese can be used to “recreate or construct ‘informal friendly talk’ online, appropriate to the cultural expectations of Japanese (their) communities”. As far as text-based communication is concerned, the factors of final particles, verb morphology (plain or polite), and sentence-final forms can be identified in Japanese. However, for the present study of JFL learners only the first factor, sentence-final particles, were examined, since others could be considered as grammatical errors for JFL learners.

Particles appeared at the end of phrases, clauses and sentences in Japanese, and normally indicate the interlocutors’ intention to establish and ensure rapport (Nishimura, 2003). Nishimura (2003, p.20) summarized the purposes and functions of final particles in Japanese, as studied by Barke (2001), Cook (1990, 1992) and McGloin (1990), and these findings are shown in Table 1.

Table 1: Summary of final particles

Particle	Function	Connotation	Note	Typical gender distinction
Yo よ			Implies that you are telling something others do not already know, not always polite to use to a superior.	Both
Ze ぜ	Insistence	"I'm telling you"	Ze is strong yo.	Male
Zo ぞ			Zo is the strongest particle of all; can add a commanding or threatening tone to a sentence.	Male
Sa(a) さ			To add emphasis, surprise, etc.	Both
Ne(e) ね	Confirmation / rapport	"...you know?" "right?" "...isn't that so?" "We feel the same way"	Directly indexes affective common ground, indirectly indexes various conversational functions that require the addressee's cooperation (requesting confirmation)	Both
Na な			Na is strong ne.	Both
No の	Rapport	Create feminine tone	Indexes knowledge shared by the speaker and the addressee or a third party, and can function as indicating politeness.	Female
Wa わ			Indexes softness or hesitant attitudes, the speaker's female gender.	Female
Ka か	Question	"Am I right to understand?"	Used to form a question.	Both

In Japanese conversation, not using final particles gives the impression that the speaker does not have any interest in communication or establishing rapport, with the latter being essential if wanting to carry out a sympathetic conversation in Japanese.

## The study

A social constructivist approach was adopted as the research framework to observe the characteristics of CMC experienced by Taiwanese college students of JFL. The learning theory of social constructivism, which is developed by Vygotsky, states that students and learners actively construct their new knowledge during the process of social interaction with others (Tsai, 2007). In particular, the social constructivism theory places a strong emphasis on students and learners. The role of the instructor is to design the learning activities where the students and learners can exercise their (language) capabilities in a particular context. The design of a social constructivist learning environment thus aims at

encouraging the participants to establish a rapport with others outside of the classroom, where the students read blog posts or Twitter feeds written in Japanese, and then comment to the interlocutors in Japanese.

The advantage of the social constructivist process is that it encourages students and learners' deep thinking and creativity. The asynchronous CMC provides the participants with more time to think, and enables them to engage in a task with a common interest, and ultimately create a common space by means of reading and commenting on the open computer mediated writing (Mompean, 2010).

In addition, a questionnaire was given to all participants at the end of the research period to gather details of their experiences of and opinions about CMC. It was followed by interviewing the participants for open-ended questions in order to identify the reasons why they selected certain blogs or Twitter feeds and to describe in depth their thoughts and feelings about text-based CMC in comparison with F2F interaction. The research questions examined in this study were thus as follows: (1) have JFL learners in Taiwan – as one major community of Japanese language learners – experienced Japanese CMC tools and what tools have they used?; (2) how do the JFL learners perceive the use of text-based CMC in Japanese with regard to reading and writing skills, and in comparison with F2F interactions?; and (3) what features are found in their online writing in terms of length of utterance and the use of final particles?

## Methodology

### *Participants*

A total of 27 (20 female and seven male) technology college students who attend a sophomore Japanese writing class in the southern part of Taiwan participated in the study. All were native speakers of Chinese who had been studying JFL in the Japanese department as part of an undergraduate program. Most of them had experienced studying Japanese for more than one year and had never taken the Japanese language proficiency test (JLPT)<sup>1</sup> before, except for three students who passed N<sub>3</sub><sup>2</sup> (n = 1) and N<sub>4</sub><sup>3</sup> (n = 2). The questionnaire consisted of two sections: Japanese language background, and experience of and perspectives on using CMC. The Japanese language background questionnaire was answered using a five-point Likert scale. The options for the respondents' duration of learning Japanese were as follows: 1 = more than 10 years, 2 = more than five years, 3 = two to four years, 4 = more than one year and 5 = less than one year. The options for Japanese typing skills were as follows: 1 = very comfortable, 2 = fairly comfortable, 3 = neither comfortable nor uncomfortable, 4 = not very comfortable and 5 points = uncomfortable. Detailed information about the participants can be seen in Figure 1 (see Appendix A for the complete questionnaire).

### *Procedure*

The participants were instructed to find a blog or a Twitter feed written in Japanese that they would like to read once a week during the research period (12 weeks) as an asynchronous CMC tool for this study, in order to ensure both familiarity and accessibility. College students are relatively familiar with such asynchronous CMC tools, according to interviews for a previous work conducted by the present researcher. Campbell (2003) states that "a weblog is interactive, in the sense that readers can respond to any given entry with a comment

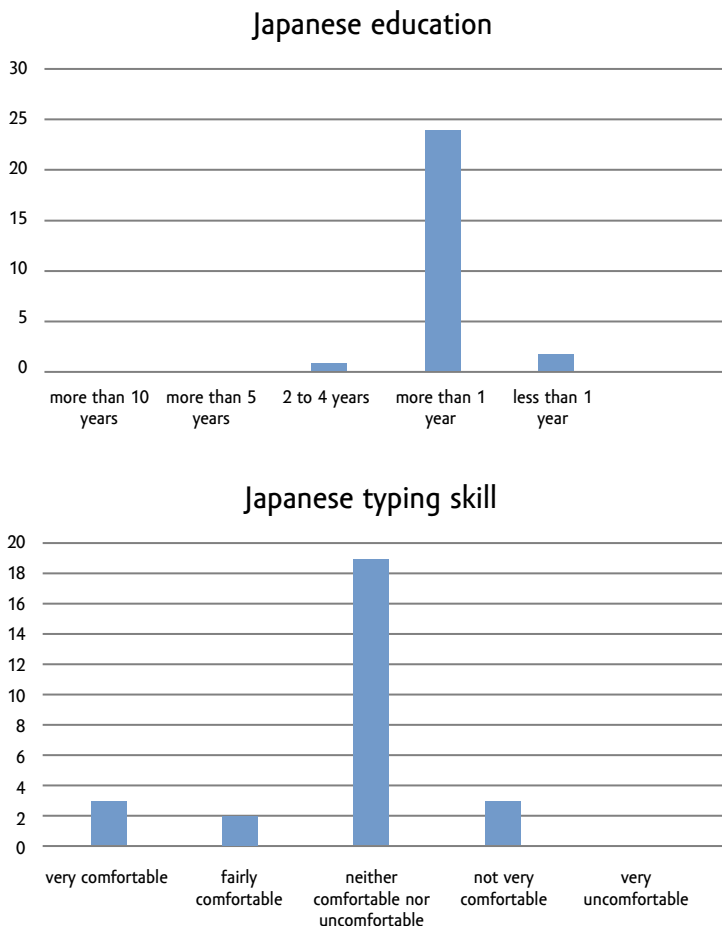


Figure 1. Respondents' Japanese language background

and even threaded discussions can take place depending on the software chosen.” The participants in this work were asked to comment on blog posts or Twitter feeds in order to develop their abilities to express their own feelings and thoughts in Japanese. The participants were required to make a comment every time they read blog posts or Twitter feeds. In this sense, the present activity using CMC tools can be regarded as providing “a place for a social constructivist process”. This task could be one-directional communication or two-way interaction when the participants received feedback from the people they commented on. During the research period, the researcher checked the blog posts or the Twitter feeds each participant selected and read their comments (after obtaining their permission to do so), in order to obtain the written data for further analysis (counting the utterance length and the use of final particles). At the end of the research period, a written questionnaire **129**

was used to obtain the student's opinions on the use of an online public activity. In this they were free to write in either L1 or L2 to explain the differences between F2F interaction and text-based CMC in order to obtain qualitative data from authentic comments.

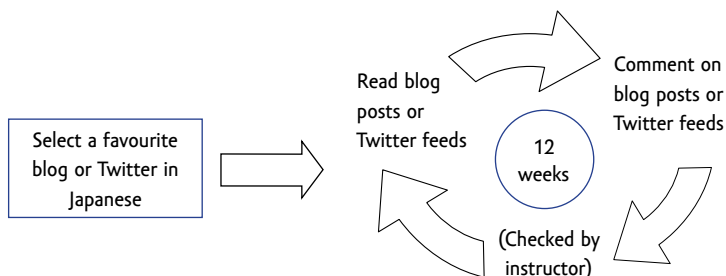


Figure 2. The combined reading/writing text-based CMC task in a JFL context

### Data collection

Each participant responded to a total of 10 written questions about their Japanese language background, and experience of and perspectives on using CMC. The questions were posed in both Chinese and Japanese. The participants were instructed to respond in writing to the open-ended questions (questions 5 and 10) using either language. Additional oral questions were asked to some of the participants to clarify their written responses to the following questions: Why did you choose the blog? What do you think of using CMC tools compared to F2F interactions? All questions were formulated to meet the following objectives:

1. To understand the background of the participant's Japanese education as well as his/her experience as a CMC user, both inside and outside of the classroom.
2. To understand the participant's feelings and thoughts when taking part in the text-based CMC interactions in Japanese.

The participants were allowed to undertake code switching, using Japanese (L2) or Chinese (L1) for all responses in order to obtain high quality data. One crucial factor in qualitative interviews is whether the interviewers can ask sufficient questions and how accurately the interviewees can explain the issues being addressed (Mann, 2011). The participants' interviews were conducted by the present researcher, a Japanese instructor at their college, in F2F conversations. The questionnaire is presented in Appendix A, along with an English translation.

### Data analysis

Students were not expected to correct their errors and revise their writing, since this was not a formal writing assignment. The main focus on the online writing – commenting on public blogs or Twitter feeds – was to facilitate fluency and encourage free expression, rather than to improve accuracy (Ducate & Lomicka, 2008). Therefore, only the utterance length



and the use of final particles (important to convey the spoken style in written language) were examined in the analysis. In order to measure the utterance length, the method of Japanese MLUw (Mean Length of Utterance by words) developed by Ogura *et al.* (1997) was employed. According to this approach, postpositional words functioning as an auxiliary to main verbs, such as *te*, *ni*, *wo*, *wa* and *ga*, final particles such as *yo*, *ne* and *no*, and verb inflections, are regarded as one word (e.g., *watashi wa* = 1 and *tabeta yo* = 1), as opposed to the Japanese MLUm (Mean Length of Utterance by morpheme) system, which bases its count on morphemes (e.g., *watashi* + *wa* = 2 and *tabe* + *ta* + *yo* = 3) (Miyata, 2012). All end marks (i.e. periods, question marks and exclamation points) are regarded as the end of an utterance in the current study.

## Results

The researcher analyzed the questionnaires that were completed by the 27 JFL students, all of whom were experienced with using text-based CMC tools in Japanese. The content from written responses and interview transcripts provided by some of the participants was grouped and labeled according to the major ideas. The first research question addressed the respondents' previous experiences of using CMC tools in Japanese. The results showed that only seven (out of 27) participants had used such tools for communication in Japanese inside the school, whereas 20 had used them outside of school, as shown in Figure 3.

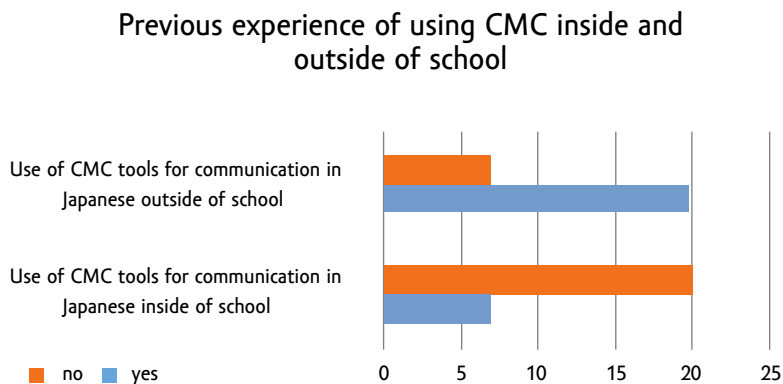


Figure 3. Previous experiences of using CMC tools inside and outside of school

Next, the kinds of CMC tools the learners of JFL used outside the school varied, depending on which ones were being used by their friends, such as Facebook, blogs, wikis and Twitter. Sample responses from the interview transcripts<sup>4</sup> for the open-ended question 5 (Why did you choose the particular CMC tool for communication in Japanese outside of the classroom?), are shown below.

Student A: はやっています。あのともだちがやっています。みんなと会話するためとか。日本語の勉強にもなるから。

[It's popular to use it. Well, my friends also use it. I use it to communicate with my friends, and to learn Japanese.]

Student B: (日本人と台湾人の)ともだちがやっているから。

[Because my (Japanese and Taiwanese) friends use it.]

Student C: 比較多人用。用很久了。

[More people use it. I got used to using it.]

All participants responded that the primary reason they selected a certain CMC tool was to maintain their existing Taiwanese and Japanese friendships. Moreover, when they used Japanese with a CMC, the aim was to practice their language skills.

The second research question was to examine JFL learners' perspectives on the use of text-based CMC in Japanese from the aspects of reading and writing, and in comparison with F2F interactions. After the students experienced communicating in Japanese using text-based CMC tools for 12 weeks, 25 participants stated that they either strongly agreed (n = 12) or agreed (n = 13) that it was possible to enhance their Japanese reading ability by the use of text-based CMC in Japanese (Figure 4). Similarly, 26 participants either strongly agreed (n = 14) or agreed (n = 12) that they could enhance their Japanese writing ability by the use of text-based CMC in Japanese, as shown in Figure 4.

### Perspectives on the use of CMC in Japanese

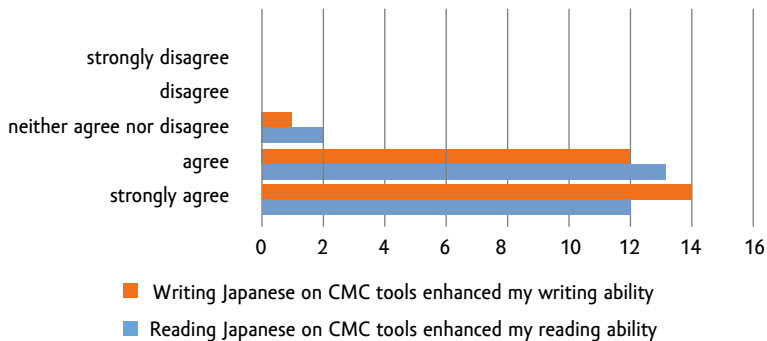


Figure 4. Perspectives on the use of text-based CMC tools in Japanese

This study also explored the students' opinions with regard to the use of text-based CMC in comparison with F2F interactions, with most students being more positive about the former. Some example interview transcripts<sup>5</sup> for open-ended question 10 (What do you think about using CMC tools compared to F2F interactions?) are shown below.

Student A: 簡単。文法を使わないから。緊張しない。

[It's easy, because I don't need to care much about grammar. I don't get nervous.]

Student B: 作文能力が上達すると思う。

[I can improve my writing ability.]

Student C: 有時候一些難開口的事, 可以用來傳達想說的事, 可傳遞文件, 照片..等等, 相當方便。

[When I feel embarrassed to speak out about some matters (in F2F), I can express them via computer, and it's very convenient to exchange documents, pictures and so on.]

Student D: 在電腦上比較能配合到對方時間。

[It's easier to arrange the time to meet with others in CMC.]

However, some participants viewed CMC communication more negatively, and mentioned that writing-based CMC did not allow for a participant to see the others' body language, and that this lack of visual cues could cause misinterpretations or misunderstandings of the others' emotions.

Student E: 面對面比較好表達。

[It's easier to express feelings in F2F.]

Student F: 通過電腦的溝通, 因為看不到對方的表情也感受不到對方的情緒。

[I can't see others' facial expressions and non-verbal emotional cues in CMC.]

Figure 5 illustrates the characteristics of each communicative style based on the participants' responses.

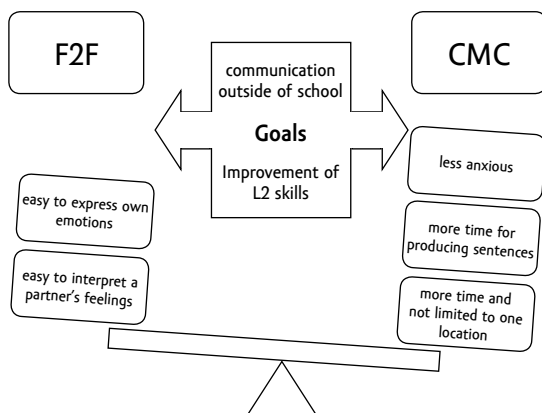


Figure 5. User perspectives on text-based CMC compared with F2F

The third research question was to examine the JFL learners' utterance length and a specific linguistic feature, the use of final particles, in their online writing. The mean average number of online comments per student was 3.6, the maximum average length was 6.3, and the minimum was 1.2 (if *o* was not counted). Although there were seven students<sup>6</sup> who failed to make any comments via the CMC tools, the remaining 20 students more actively participated in the task. From a social constructivist perspective, the mean number of comments indicates that most of the students were successfully engaged in discussing a topic with native Japanese speakers.

In addition, the students' written styles included a number of final particles, showing their intention to establish rapport when addressing others. The number of times sentence-final particles appeared in comments were 46 (18.9%) for *ne*, seven (2.9%) for *yo*, six (2.5%) for *na*, and one (0.4%) for *no* and *ka*. An example of the use of a sentence-final particle by one of the participants is shown below:

### Excerpt 1

1. ###さんへ  
[Dear ###]
2. こんな友達がいるなんて、本当に羨ましいですね。  
[You have such kind friends. I'm envious of you, huh?]

## Discussion

This study investigated the experiences of and perspectives on the use of CMC tools in Japanese by JFL learners in Taiwan. It also examined utterance length and a feature of their text-based CMC, the use of final particles. Three research questions guided this work: (1) have JFL learners in Taiwan – as one major community of Japanese language learners – experienced Japanese CMC tools and what tools have they used?; (2) how do the JFL learners perceive the use of text-based CMC in Japanese with regard to reading and writing skills, and in comparison with F2F interactions?; and (3) what features are found in their online writing in terms of length of utterance and the use of final particles? The findings related to these questions are presented below.

### *Experiences of using CMC tools by JFL learners in Taiwan*

Some students had only used course management systems, such as Blackboard, to communicate with their instructors in Japanese, while others had never used CMC tools in their Japanese language courses. This revealed the need to introduce such tools in JFL writing classrooms, since the respondents who perceived writing-based CMC as a useful language learning tool were already competent in the use of various such tools. Pedagogically, CMC tools should be integrated with existing instructional courses, and the main concern in this context is how to overcome the limitations of these tools in order to achieve better L2 outcomes.

The participants identified two major advantages of using CMC tools in L2, namely creating a common space outside of school and improving their Japanese language skills. All of the students stated that their primary reason for selecting specific CMC tools, such as Facebook and Twitter, was to share their feelings with a person who shared the same interests as they did while using Japanese, and this also helped them to maintain relationships with their CMC partners for a longer period. Recent research indicates that some CMC tools aim to forge ties between individuals who are already members of existing social networks, while others aim at initiating new relationships (Boyd & Ellison, 2008; Pollet, Roberts, & Dunbar, 2011). Indeed, the purpose of maintaining online connections – when compared to those in an offline community – seems to be to build “high-quality friendships” (Pollet *et al.*, 2011, p.253). Although Pollet *et al.* (2011) show that there is no association between the use of social media and feeling emotionally closer to offline friends, the present finding suggests that the participants were afraid of being isolated if they did not engage in online friendships. In other words they felt a strong necessity to be a member of tightknit online social networks.

Moreover, some participants noted that their Japanese language skills had improved with the use of the CMC tools. This echoes earlier research which showed that the use of blogs can enhance L2 learners' competence in expressing themselves, as well as their

### *JFL learners' perspectives on the use of text-based CMC in Japanese*

26 and 25 out of the 27 participants perceived improvements in their Japanese writing and reading skills, respectively, when they used the text-based CMC tools. Warschauer (2010) views the use of blogs in an L2 context as a way of enhancing L2 learners' language competence, and that making use of blogs can also facilitate learners' autonomy in their writing. In the learning context of the current study the learners were exposed to being a public writers, not like in school networks where instructors always supervise the flow of discussions. In addition, self-publishing can develop students' awareness and thoughtfulness in L2 writing (Godwin-Jones, 2003). From a pedagogical perspective, such social technology resources can be applied to L2 collaborative writing, like in an English writing class. L2 collaborative writing allows the students to negotiate meaning with peers, learn from each other and work together in order to achieve a common goal, and thus it can lead to better outcomes in the classroom.

The responses to the comparison between the use of text-based CMC and F2F interactions highlighted several factors that the participants experienced. Most of the participants acknowledged that the use of CMC in both languages is easier and more comfortable when interacting with others. The advantages of CMC are the reduction in anxiety due to lack of visual cues, and the ability to avoid making spelling and grammar mistakes, since the computer combines various functions, including dictionaries, and spelling and grammar checkers. Asian learners, like Chinese and Japanese students, tend to show culturally specific behavior – such as being afraid of losing face – which can lead to them becoming passive learners in the language classroom (Song, 2008). Furthermore, inexperienced students tend to pay more attention to grammar and lexical rules than those who are more experienced in L2 in terms of their linguistic knowledge (Zamel, 1983). The use of blogs or other public writing tools on the Internet thus enables students to overcome some of the negative aspects of F2F interactions and to express themselves more freely – which will ultimately increase their creativity in writing (Song, 2008).

On the other hand, some participants stated that during F2F interactions it is easier to understand the emotions of those they are communicating with than when using CMC. Ironically, while the lack of visual cues reduces learners' anxiety and facilitates their interactions via the computer, the lack of non-verbal cues, such as facial expressions and other forms of body language, can make feelings and intentions ambiguous, and may lead to misinterpreting messages. Derks *et al.* (2008, p.776) found that two of the characteristics of non-verbal displays in CMC are that the “ambiguity of the intended emotion expression is reduced,” and that “non-verbal cues may intensify or tone down the emotion expression”. A message which is only written is unable to convey all the author's emotions clearly, including positive and negative feelings. Indeed, non-verbal cues play a crucial role in carrying on smooth conversations in both L2 and L1.

### *The use of final particles*

The usage of final particles in Japanese differs slightly according to gender, age and dialect. In this study, the most frequent used particle was “ne(e)”. “Ne” or the elongated form “nee” is used by both genders, and has a function of adding some softness to a sentence and seeking confirmation from the listener, similar to the English “you know?” or “right?” The consistent presence of final particles in the students' comments suggests that the JFL

participants intended to construct social relationships when using text-based CMC, since a function of final particles is to express speakers' implicit intentions to listeners, including requesting, agreeing, understanding and showing empathy (Kajikawa *et al.*, 2004). While F2F interactions can rely on non-verbal behaviors, such as gestures (e.g., nodding) and voice variations, text-based CMC in Japanese allows users to convey their affective tones via the use of final particles.

In general, JFL learners take a long time to acquire functional competence with final particles (Ohta, 1994), in contrast to native speakers, who acquire the particles at the early stage of their language development through everyday interactions in Japanese (Clancy, 1985). Establishing rapport is indispensable when engaging in Japanese conversation, and such interactions would break down if the particles were not used while conversing with Japanese speakers. A total of 65% (13 students) of the JFL learners used "ne(e)" appropriately at least once in their comments, but other types of particles also randomly appeared. Introducing a variety of final particles should thus be emphasized in JFL teaching when working with text-based CMC.

## Conclusion

The present research attempt to explore JFL students' experiences of and perspectives on using text-based CMC reviewed several aspects of CMC, including the use of text-based CMC tools. The findings showed that the majority of the JFL learners used CMC tools outside of the school. The reasons for choosing specific CMC tools were to share common interests and build online relationships with existing friends, and to improve Japanese language skills when using such tools in Japanese.

Moreover, the participants perceived that the use of text-based CMC tools in Japanese could enhance their reading and writing skills. They also saw significant differences between CMC and F2F communication. The learners perceived text-based CMC as being more convenient and easier to use than F2F interactions, since their interlocutors lived in different countries. Most participants stated that they felt less anxious and had more time to produce Japanese when engaging in text-based CMC interactions. Nevertheless, some of them pointed out that the lack of non-verbal expressions of emotions is a negative factor in FL interactions that occur via computer.

Overall, the current research has contributed valuable new material to the field of JFL education. Future research could examine the use of various CMC tools in the Japanese language classroom from different perspectives, such as the interactions among classmates, and between the teacher and students, in terms of learning effectiveness. Furthermore, it would be worthwhile to explore how different levels of FL competence would result in different learning outcomes for various CMC tools. In addition, more robust research on which CMC tools lead to better outcomes in learning Japanese is also required.

## Notes

1. The JLPT is a standardized test to evaluate Japanese language proficiency for non-native speakers, including language knowledge, reading ability, and listening ability. It consists of five levels of certification, with five being the lowest and one being the highest.
2. N3 is regarded as Intermediate level.
3. N4 is regarded as Elementary level.

4. The participants were allowed to code-switch, using Japanese (L2) or Chinese (L1), and therefore exact transcriptions were mixtures of both languages.
5. As in question 5, exact transcriptions were a mixture of Chinese and Japanese.
6. Those students were absent for more than 1/3 of the semester.

## Acknowledgements

I thank all students who participated in the experiment. I would also like to show my gratitude to anonymous reviewers for comments that greatly improved the manuscript.

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## Author biodata

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## Appendix A

### Part 1. Japanese language background

1. どのくらい日本語を勉強しましたか。

你學日文已經多久了?

How long have you been learning Japanese?

1: 10年以上 2: 5年以上 3: 2、3年以上 4: 1年以上 5: 1年以下

1: 10年以上 2: 5年以上 3: 2年或3年以上 4: 1年以上 5: 1年以下

1: 10 years or more / 2: 5 years or more / 3: 2-4 years / 4: 1 year or more / 5: less than 1 year

2. 日本語検定試験では何レベルですか。

依據日文能力檢定你的程度是?

What is your Japanese level according to the new JLPT standard?

1:N1 2:N2 3:N3 4:N4 5:N5

3. 日本語でワープロを打つのはどうですか。

你覺得使用電腦鍵盤打字寫出日文容易嗎?

How comfortable are you using word processing programs (typing) in Japanese?

1:とても上手 2:上手 3:普通 4:あまり上手ではない 5:下手

1: 很好 2: 好 3: 普通 4: 不是很好 5: 很差

1: Very comfortable / 2: fairly comfortable / 3: neither comfortable nor uncomfortable / 4: not very comfortable / 5: very uncomfortable

### Part 2. Experience and perspectives on using CMC

1. 日本語の授業でコミュニケーションのためにブラウザーを使ったことがありますか。

藉由日文你曾經在日文課內使用過哪一種瀏覽器來做為溝通的工具?

Have you ever used any CMC tools for communicating in Japanese as part of the requirements for a Japanese course?

はい / いいえ

是 / 不是

Yes / no

2. はいとお答えした人に伺います。どんなブラウザーを使いましたか。(例: Blackboard / BBS / メール / ブログ / ウィキ / ソーシャルネットワークサイト)

如果是, 你是使用那些做為你的通信或傳播工具? (例如: Blackboard / BBS / 網路信箱 / 部落格 / wikis / 社交網站)

If yes, what kind? (e.g., Blackboard / BBS / emails / blogs / wikis / social networking sites)

3. **日本語の授業以外**で日本語でコミュニケーションのためにブラウザーを使ったことがありますか。  
藉由日文你曾經在**日文課堂外**使用過哪一種瀏覽器來做為溝通的工具?  
Have you ever used any CMC tools for communication in Japanese outside of the Japanese classroom?

はい/いいえ  
是/不是  
Yes / no

4. はいとお答えした人に伺います。どんなブラウザーを使いましたか。(例: Blackboard / BBS / イーメール / ブログ / ウィキ / ソーシャルネットワークサイト)  
如果是, 你是使用那些做為你的通信或傳播工具? (例如: Blackboard / BBS / 網路信箱 / 部落格 / wikis / 社交網站)  
If yes, what kind? (e.g., Blackboard / BBS / emails / blogs / wikis / social networking sites)
- 

5. どうしてそれを選んだのですか?  
為什麼你選擇它做為通信或傳播工具?  
Why did you choose it?
- 

6. 以前から日本語のブログを読んでいますか。  
修這堂課之前已經讀過日文部落格。  
I have read Japanese blogs before taking this class.

1:よく読んでいる(毎日) 2:ときどき読んでいる(3, 4日に一度) 3:どちらともいえない(1週間に一度)  
4:あまり読んでいない(1ヶ月に一度) 5:ぜんぜん読んだことがない  
1:我時常讀 2:我有時候讀 3:我不常讀 4:我很少讀 5:我從來不讀  
I often read [every day] / I regularly read [once every 3-4 days] / I read fairly often [once every week] / I read a little [once a month] / I never read

ウェブサイト名(例: アメーバピグ、フェイスブックなど)  
網站  
Names of blog host (e.g., Ameba, Facebook, etc.)

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7. この授業で読んだブログのウェブサイト名は何ですか。  
修這堂課你選擇哪一個網站的部落格?  
What blog host did you choose for this class?

ウェブサイト名(例: アメーバピグ、フェイスブックなど)  
網站  
Names of blog host (e.g., Ameba, Facebook, etc.)

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8. 日本語のブログを読むことで、日本語能力が上達すると思いますか。0

我同意閱讀日文的部落格可提升我的日文能力?

I agree that reading Japanese blog(s) enhanced my Japanese ability.

1:強くそう思う 2:まあそう思う 3:どちらともいえない 4:あまりそう思わない 5:ぜんぜん  
そう思わない

1:我非常同意 2:我同意 3:我大概同意 4:我不同意 5:我非常不同意

I strongly agree / I agree / I neither agree nor disagree / I disagree / I strongly disagree

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9. 日本語でブログを書くことで、日本語能力が上達すると思いますか。

我同意寫作日文的部落格可提升我的日文能力?

I agree that writing Japanese blog(s) enhanced my Japanese ability.

1:強くそう思う 2:まあそう思う 3:どちらともいえない 4:あまりそう思わない 5:ぜんぜん  
そう思わない

1:我非常同意 2:我同意 3:我大概同意 4:我不同意 5:我非常不同意

I strongly agree / I agree / I neither agree nor disagree / I disagree / I strongly disagree

---

10. 面と向かう会話と比べて、コンピューターでの会話をどう思いますか。

你覺得使用電腦通信/傳播這些工具和面對面的溝通有什麼不一樣?

What do you think of using CMC tools compared to F2F interactions?

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