Learners' use of communication strategies in text-based and video-based synchronous computer-mediated communication environments: opportunities for language learning

This study investigates the different learning opportunities enabled by text-based and video-based synchronous computer-mediated communication (SCMC) from an interactionist perspective. Six Chinese-speaking learners of English and six English-speaking learners of Chinese were paired up as tandem (reciprocal) learning dyads. Each dyad participated in four kinds of interactions, namely, English text-based SCMC, Chinese text-based SCMC, English video-based SCMC and Chinese video-based SCMC. Their use of communication strategies (CSs) were analysed along with an after-task questionnaire and with stimulated reflection to explore systematically and comprehensively the differences between text-based and video-based SCMC. In addition to the main role of qualitative analysis, the quantitative analysis was undertaken to provide an overview of the relative frequencies of the occurrence of the different strategies and to understand their distribution in the different conditions. A MANOVA was applied to understand to what extent the differences are likely to have occurred by chance. The results showed that learners used CSs differently in text-based and video-based SCMC and indicated different learning opportunities provided by these two modes of SCMC. While text-based SCMC appears to have greater potential for learning target-like language forms, video-based SCMC seems particularly effective for fluency development as well as pronunciation improvement.

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Introduction

Synchronous computer-mediated communication (SCMC) that occurs between people in real time via networked computers can be conveyed in either text or video mode. Text-based SCMC (i.e. text chat) integrates features of written discourse with spoken discourse and it also carries unique features such as lack of turn adjacency (cf. Sacks, Schegloff & Jefferson, 1974[1]) and use of simplified registers (e.g., timesaving spellings; Freiermuth, 2011; Smith, 2003a). Video-based SCMC (i.e. videoconferencing), on the other hand, is more like face-to-face communication in terms of the availability of visual and vocal cues such as intonation and gestures.

The two modes of SCMC are both increasingly being used to communicate across cultural and language differences. Dörnyei (1995) suggested that raising language learners' awareness of various communication strategies (CSs) through instruction, but then letting CSs work through learners' developing language competence and look after themselves during communication, so knowledge of CS use in SCMC environments may contribute in this regard. Moreover, CS use is closely connected with language acquisition in terms of second language acquisition (SLA) theories that emphasize the role of input, output, feedback, and cognitive processing (Kasper & Kellerman, 1997, p.7). While SCMC environments appear to shape CS use (Smith, 2003b), research on CS use in text-based and video-based SCMC environments may help account for the learning opportunities enhanced by the two modes of SCMC.

Synchronous computer-mediated communication

Research (e.g. Kelm, 1992; Kern, 1995; Warschauer, 1996) has shown that text-based SCMC can promote equal participation, language production and complexity, and reduce anxiety caused by time or psychological pressure. Moreover, given that negotiated interaction can facilitate SLA by connecting input, feedback and output through selective attention (Long, 1996), many studies (e.g. Smith, 2004; Shekary & Tahririan, 2006; Sotillo, 2005) have shown the potential for SLA of text-based SCMC through the investigation of feedback and focus-on-form activities in meaning negotiation. Similarly, Lee (2008) found text-based SCMC can support focus-on-form procedure in collaborative interaction from a sociocultural perspective. Lai and Zhao (2006) suggested the text form (re-readability) and the extended processing time in text-based SCMC can enhance the processes of noticing (attention)

that is essential for SLA (Schmidt, 2001).

While the majority of SCMC studies focused on text-based SCMC, studies in video-based SCMC are less common. Although video-based SCMC may not promote equal participation or reduce psychological pressure as text-based SCMC does (Kinginger, 1998; Zöhner, Fauverge & Wong, 2000), it can be used with other modalities of communication such as text chats and pictures to promote interaction and facilitate the processing of SLA (Hampel & Stickler, 2012; Wang, 2006). Moreover, while Lee (2002b) suggested the fast meaning exchanges in text-based SCMC were likely to encourage fluency rather than accuracy as learners tended to ignore linguistic mistakes, the faster pace of interaction in video-based SCMC might reinforce the effect on promoting fluency.

Apart from linguistic development, Darhower (2002) proposed SCMC can facilitate the development of sociolinguistic competence due to the opportunities for authentic communication. Given the impact of social factors on interaction (Tarone, 2010), an increasing number of SCMC studies have investigated interaction in different social contexts, particularly intercultural SCMC. Freiermuth and Huang (2012) confirmed intercultural SCMC can promote use of target language, but noted the possible effects of task design on learners' motivation. Kurata (2007) suggested learners' identities which appeared to be influenced by their language proficiency might affect their language choice.

Communication strategies

Recognizing the importance of CSs for language learners with restricted target language knowledge for effective interaction, problem-orientedness has often been a defining criterion for CSs in target language research (Dörnyei & Scott, 1997). Færch and Kasper (1983) viewed CSs as conscious plans for solving problems of language production and identified two divergent approaches to manage problems. When realizing problems, learners may either develop alternatives to achieve their original goals (achievement strategies that include compensatory strategies and retrieval strategies) or change the communicative goals to avoid errors or increase fluency (reduction strategies). Tarone (1980) proposed viewing CSs within an interactional framework and defined CSs as "mutual attempts of two interlocutors to agree on meaning in situations where the requisite meaning structures do not seem to be shared" (p.420). As such, CSs include not only problem-management strategies that are used

to prevent problems from happening but also problem-solving strategies that are used when problems have occurred during communication.

While Dörnyei and Scott (1997) extended the scope of CSs to include every potentially intentional attempt to manage problems that the speaker notices during communication, there is a growing trend to investigate CSs used in problem-free discourse, which is consistent with Canale's (1983) definition of CSs as attempts to "enhance the effectiveness of communication" (p. 11). Jamshidnejad (2011) found that the majority of CSs were used to promote target language accuracy or to keep interaction flowing when meanings were clear and unproblematic. While CSs enable learners to test their hypotheses or expand their knowledge to wider aspects of target language apart from solving problems and co-constructing knowledge, CS use may foster SLA if feedback on learners' output is provided (Swain, 1995).

CS use in SCMC

Negotiated interaction can assist SLA through interactional modifications towards language comprehension (Long, 1996). While interactional modifications serve to either repair or prevent communication problems and thereby fall into the category of CSs, Lee (2001, 2002b) confirmed the beneficial effect of these strategies on language comprehension in text-based SCMC. Moreover, while a wide array of CSs, including interactional moves and discourse moves, can be employed in text-based SCMC (Chun, 1994; Kost, 2008; Smith, 2003), learners might use different interactional strategies in combination to facilitate collaborative interaction (Peterson, 2009).

Smith (2003b) separated CSs that were employed in problem-free discourse from compensatory strategies that were used to overcome lexical difficulties. He suggested that the heavy use of CSs of fillers, substitution (i.e. abbreviation), topic framing, and politeness was shaped by the absence of non-verbal aids such as intonation or facial expressions in a text-based CMC environment. Interestingly, while Smith suggested that interlocutors relied on fillers as explicit signals to tolerate extended pauses in text-based SCMC, Kost (2008) found no occurrence of this strategy, which she explained as learners not seeing each other, and thus not feeling the need to pass signals[2].

Kost (2008) viewed CSs as discourse management devices to repair or prevent problems, and found code-switching, requests for clarification, and self-repair were used frequently in text-based SCMC. She also explained that her participants who

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were with lower proficiency might be unable to use more elaborate strategies that require higher levels of linguistic ability. Similarly, Khamis (2010) suggested that the high frequency of topic continuation ('promoters' used to encourage the continuation of discourse) might occur because it was the easiest to use by learners in developing discourse, while forward inferencing was used less frequently as its use involved analyzing previous information and synthesizing new ideas, which are both more demanding tasks.

Research purpose and questions

Although numerous studies (e.g., Lee, 2002a; Toyoda & Harrison, 2002) suggested the value of CS use for target language use and acquisition in SCMC focusing on negotiations triggered by communication problems, only a few studies (e.g., Kost, 2008; Smith, 2003b) have investigated CS use comprehensively in SCMC. Even fewer have studied and compared CS use in text-based and video-based SCMC environments. To develop knowledge in this area, the present study investigated CS use systematically and comprehensively in text-based and video-based SCMC from an interactionist perspective. While the CS coding categories were defined in functional terms, the aim was to explore the different usage of the same CS in two modes of SCMC, particularly the way that the differences might be related to the different media. This study aims to identify the learning opportunities offered by these two modes of SCMC in terms of CS use. Two research questions were evaluated:

1. What communication strategies are employed by learners to facilitate the target language communication in text-based and video-based SCMC environments?

2. What differences are there between text-based and video-based SCMC in terms of the frequency and distribution of communication strategy use, particularly in terms of the potential for language learning?

Method

Research design and participants

A total of 12 participants were recruited as volunteers and formed six tandem learning dyads between Chinese-speaking learners of English (LEs) and English-speaking learners of Chinese (LCs). All LEs were English majors at universities in Taiwan and all LCs were Chinese majors at universities in either United Kingdom or Ireland when they participated in this study. All dyads were

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required to have four different reciprocal interactions and provide supportive information through questionnaires and reflections. Figure 1 illustrates the research design.

Insert Figure 1 about here

The duration of each interaction was around 30 minutes. MSN Messenger and Skype were chosen for text-based and video-based SCMC tools respectively since they are free but stable tools for online tandem interaction. Although each of them can support both modes of SCMC, the separation of software use was to ensure consistency in data collection and to reduce possible effects of prior experience as all participants were at least familiar with one tool. The built-in function in MSN Messenger was used to save all the chat logs and the software "Supertintin Skype Recorder" was used to record video-based interaction.

The qualitative analysis of four types of online interactions of the same group of participants precluded the use of a large sample; nevertheless, the sample size in this study is still at the acceptable lower limit for MANOVA (Guilford & Frunchter, 1978) particularly as it is used in this study to indicate to what extent the differences of the occurrence of CSs between the two modes of SCMC are likely to have occurred by chance. Although a total of 12 participants can only detect a very large effect size at the 0.8 power level ($\alpha = .05$), the sample size is sufficient so long as any conclusions do not rely on claims about the representativeness of the sample.

Online interactions

A single type of open-ended conversational task as suggested in Lee's (2002a) study was used all experimental interactions to avoid possible task type effect, but different topics were selected to avoid any practice effect or repetition of the task and specific vocabulary. The four topics as shown in Table 1 were selected to encourage participants to share opinions and exchange information relevant to their life experiences and a set of open-ended questions based on each selected topic were provided to help participants actively engage in two-way interaction as that is an important element of an effective SLA task (Ellis, 2003). For example, while

discussing leisure activities, participants were asked to exchange information about popular leisure activities among university students in their countries and their opinions of these activities. They also shared their experience of online leisure activities and their thoughts about spending free time on social media.

Insert Table 1 about here

Retrospective reports

To help validate the results of interaction analyses as suggested by Kasper and Kellerman (1997), participants were asked to fill out the after-task questionnaire (Appendix 1) right after completing the last online interaction, and give stimulated reflection a week later. Stimulated reflection involves having participants review their interactions as a prompt to help them recall their concurrent thoughts during interaction. Since it was to help clarify coding, the primary analysis was undertaken to preselect the segments for clarification. Before being asked to reflect on these preselected turns, participants were encouraged to reflect on their interaction freely. As participants gave verbal reports in their first language, they generally started by clarifying their intended messages in their first language and then pointed out the problems they encountered along with the solutions they could think of when communicating in the target language. The cognitive processes of using CSs to solve language problems of comprehension and expression were reported in this way.

The CS coding categories

Most CSs were adapted from Dörnyei and Scott's taxonomy (1997) and other CSs were added from studies such as Smith's (2003b) to provide a more comprehensive CS coding scheme for SCMC. Despite extending the scope to include more categories of CSs for both modes of SCMC, some functionally similar CSs were integrated. For example, time gaining strategies in this study include use of fillers and repetitions from Dörnyei and Scott's taxonomy. Defining repetitions as a strategy is problematic when not all repetitions carry the same function. The function of repetition is clear in Dörnyei and Scott's taxonomy only because it is situated in a matrix made up from three ways of problem management by four types of

communication problem.

CSs investigated in this study were grouped into categories in terms of their functions. Apart from the three commonly recognized categories in previous taxonomies, namely, Interactional Strategies, Compensatory Strategies, and Reduction Strategies, this study also recognized Focus-on-form Strategies and Sociocultural Strategies. The investigation of Focus-on-form Strategies is to identify if learners attend to language forms in meaning-oriented interaction. As sociocultural competence has been considered as one component of communicative competence (Canale, 1983), Sociocultural Strategies are included in this study. Moreover, Paralinguistic Strategies are separated from the aforementioned categories as the subcategories can only be used in one mode of SCMC, not the other. The six CS coding categories are carefully defined below to avoid overlapping with each other and the complete list of CSs with examples selected in the present study is introduced in Table 2.

- Interactional Strategies refer to CSs used to repair or manage conversational discourse.
- Compensatory Strategies are limited to CSs used to solve language problems of expression through manipulating available language knowledge.
- Reduction Strategies are used to tackle language problems of expression by changing the intended message.
- Focus-on-form Strategies are used to attend to target-like forms.
- Sociocultural Strategies are mainly to sustain a collaborative and friendly interaction.
- The paralinguistic strategy (i.e. mime) recognized in the previous studies can be used to solve problems of expression or facilitate language problem-free expression in video-based SCMC. Despite the common function of facilitating expression, the other paralinguistic strategies investigated in this study are used exclusively in text-based interaction to compensate for the modality restrictions[3].

Insert Table 2 about here

Data analyses

The use of CSs was investigated through a qualitative analysis of interaction data along with learners' retrospective reports. In addition, a quantitative analysis was undertaken to provide an overview of the relative frequencies of the occurrence of the different strategies and to understand their distribution in the different conditions. Learners were naturally more productive and thus more turn-taking appeared in video-based SCMC (speaking) within 30 minutes than in text-based SCMC (typing). A positive correlation between the number of turns and the number of CSs used was significant at the 0.01 level ($r = 0.81$). To control for the difference in production, the percentage of particular CSs in either mode of SCMC and the mean occurrence of individual CS per turn were examined along with the total occurrences of CSs. Despite the different turn-taking systems in text-based and video-based SCMC, a turn commonly refers to "each time there was a transfer of the 'floor' from one participant to the other"[4] (Smith, 2003a, p. 39). MANOVA was used to understand to what extent the differences were likely to have occurred by chance.

Results

The distribution patterns of CS use

The total number of occurrences of all CSs in text-based SCMC was 287 out of 386 turns, whereas the total in video-based SCMC was 665 out of 1142 turns. The most to least frequently used CSs in text-based SCMC were Paralinguistic Strategies (164; 57.14%), Sociocultural Strategies (67; 23.34%), Interactional Strategies (42; 14.63%), Focus-on-form Strategies (10; 3.48%), Compensatory Strategies (4; 1.39%), and Reduction Strategies (0; 0%). On the other hand, the most to least frequently used CSs in video-based SCMC are Interactional Strategies (318; 47.82%), Sociocultural Strategies (131, 19.70%), Focus-on-form Strategies (102; 15.34%), Compensatory Strategies (74; 11.13%), Paralinguistic Strategies (34, 5.11%), and Reduction Strategies (6; 0.90%). The distribution patterns of CS use in the two modes of SCMC are shown in parallel (Figure 2).

Insert Figure 2 about here

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Learners used Sociocultural Strategies frequently and Reduction Strategies equally rarely in text-based and video-based SCMC, whereas they tended to use the other CSs differently in these two modes of SCMC. In addition to the different subcategories of Paralinguistic Strategies investigated in the two modes of SCMC, learners used fewer Compensatory Strategies and interactional modifications (i.e. requests for clarification, confirmation checks, comprehension checks, and requests for help) in text-based SCMC. Moreover, while learners generally requested clarifications of unfamiliar terms in video-based SCMC, they tended to get situational meanings that could only be clarified by their partners in text-based SCMC. Indeed, learners did not really use CSs to solve their language problems of expression and comprehension in text-based SCMC. It is worth noting that the interaction data from text-based SCMC were collected from chat logs as this study attempted to investigate CS use within an interactional framework. As such, self-corrections (one type of Focus-on-form strategies) made in the unsent messages were not investigated in this study. Learners in this study reported editing their unsent messages, so some of the repairs were missing in chat logs, as noted by Smith (2008).

Use of individual CSs

Moving the focus closer to individual CSs, the statistical analysis showed that most CSs were used differently in text-based and video-based SCMC (Table 3). The results of the MANOVA showed that differences on 16 out of 22 CSs in the two modes of SCMC were statistically significant at the 0.05 level. The analysis shows that CSs were used more intensively (the mean occurrence per turn) in video-based SCMC than in text-based SCMC. The difference might partially result from the fact that some repair moves occurred in unsent messages. Another explanation might because some CSs (or some usage of CSs) are more naturally or more easily used in a video-based SCMC environment.

Insert Table 3 about here

In text-based SCMC, learners tended to use inferential strategies and

self-correction to build up discourse collaboratively and to ensure target language accuracy (see Table 4). In video-based SCMC, they often used input elicitation strategies along with other CSs to actively engage in target language interaction and to solve communication problems.

Insert Table 4 about here

Learners' reflections

Two thirds of participants believed they performed better and had more confidence in text-based SCMC than in video-based SCMC. With less time pressure, all participants used online resources such as simultaneous dictionaries and Google Images[5] to help their interaction in text-based SCMC. Despite being more confident as a result of the help from consulting other resources, some learners admitted that the inadequate keyboard skills (e.g. typing speed) and grammatical abilities sometimes restricted their production in text-based SCMC.

Learners were less able to use online resources in video-based SCMC due to the faster pace and more intensive interaction. Indeed, four of them reported that they stopped using other resources entirely in video-based SCMC. They also reported the difficulties caused by reception problems[6] and inadequate listening skills. Despite feeling more pressure, one learner pointed out that "it [video-based SCMC] forces me to practically use the language, but without the time to check a dictionary so I get to learn in a more immersive way."

Discussion

Learners used a wide range of CSs in text-based and video-based SCMC, although they tended to use the CSs differently in the two modes of SCMC. This section summarizes the similarities and differences of CS use in the two modes of SCMC and discusses the teaching and learning possibilities offered by the two modes of SCMC.

Similarities in text-based and video-based SCMC

Sociocultural Strategies. Learners used social formula and code-switching frequently in both modes of SCMC, which might be due to having a positive social relationship and the reciprocal design of the study where each participant acted as a language expert and as a learner. While sociocultural competence is important to successfully engage in a social interaction (Canale, 1983), the use of social formula shows the potential for its development through social interaction in CMC (Chun, 1994). It is worth noting that a higher level of politeness seemed to be promoted in text-based SCMC from a qualitative perspective, despite the frequent use of polite formula for requesting repetitions or clarifications in video-based SCMC due to the bad reception or inadequate listening abilities. One learner of English used "sorry" frequently as a prompt reaction when she could not clearly hear her peer's talk in video-based SCMC. The same learner politely answered to her partner's question about if she heard of a Sunday Roast by "sorry I haven't, but I suppose it must be a good one." in text-based SCMC. This example in text-based SCMC seems more deliberate than the reactions in video-based SCMC. Moreover, whereas one learner of Chinese typed a polite formula "谢谢！*(Thank you)*" in response to her peer's experience sharing and also to mark the closure of the old topic in text-based SCMC, she just said "好的 *(good)*" in video-based SCMC for the same purpose. The higher, and perhaps more formal, level of politeness in text-based SCMC might result from learners' intentions to ensure they were engaging in cooperative behaviour in a limited communication medium as suggested by Smith (2003b), where simultaneous non-verbal communication was not possible. Besides, an extended planning time in text-based SCMC might allow for more complete or longer polite expressions.

Learners in this study often used first language terms in target language discourse to introduce their native culture rather than compensate for any inadequacy in target language abilities. One learner of English used "台灣小吃 *(Taiwanese snacks)*" along with the literal translation "small eat" to introduce one group of Taiwanese delicacies. After knowing that Taiwanese often have this food for meals rather than in between meals, his partner agreed that "snack" is not an equivalent word for "小吃". While code-switching helped maintain a "dialogue of cultures" (Savignon & Sysoyev, 2002), the strategy also promotes the development of sociocultural competence. Indeed, learners also switched code to have a positive social relationship when they were playing the role of native speakers. One learner of Chinese agreed with his partners

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that one dish is delicious and added, "especially if you eat it with 台灣啤酒！ *(Taiwanese beer)*" in English conversation. Similarly, another learner of Chinese used "早上好（*Good morning*）" in English conversation.

Differences in text-based and video-based SCMC

Interactional Strategies. Despite the potential of negotiated interaction in both modes of SCMC, the use of interactional modifications appeared to be affected by the communication medium. Requests for clarification and confirmation checks were used consistently more than requests for help and comprehension checks in both modes of SCMC. While the former two strategies are to ensure the comprehension of input and the latter two are to ensure the output comprehensibility, the result might suggest a greater demand for solving the problems of comprehension than the problems of expression.

The finding that the strategy of requests for clarification was one of the six most frequently used CSs in text-based SCMC is broadly consistent with previous studies (Kost, 2008; Lee, 2001, 2002b). Nevertheless, easy access to consult other resources for lexical terms and to re-read messages in text-based SCMC appeared to reduce the use of requests for clarifications, as well as the need for confirmation checks. They requested clarifications in text-based SCMC when the meanings needed to be clarified by their partners. In contrast, learners often requested explanations for unfamiliar terms to keep a fast pace of interaction in video-based SCMC, and they often confirmed what they heard before requesting clarifications due to poor reception and any listening difficulties.

While learners requested help frequently in video-based SCMC which maintained the pace and flow of the conversation, they often took time to come up with a comprehensible expression or consult a dictionary for an intended term in text-based SCMC. Despite the infrequent use of comprehension checks in both modes of SCMC, the reason for the infrequent use of this strategy in the two modes of SCMC did not appear to be the same. The infrequent use of this strategy in text-based SCMC might be connected to the fact that most learners felt confident in their own performance, whereas the infrequent use in video-based SCMC appeared to be because their partners often showed their understanding or interest with short responses in learner's turn space (see one example of giving responses without taking over the 'floor' of the

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primary speaker in Table 2 – input elicitation strategies).

Learners constructed meaning collaboratively through not only meaning negotiation but also discourse management. The use of input elicitation strategies and verbal strategy markers appeared to easier in video-based SCMC. While learners often gave responses in their partners' turn space in video-based SCMC, such usage of input elicitation strategies was not really possible in text-based SCMC. Indeed, learners tended to wait patiently for their interlocutors to finish typing messages in text-based SCMC due to their awareness that simultaneous typing might damage the adjacent turn and make the interaction difficult to read[7]. A good task with a clear structure helps keep both participants focussed and prevents topic decay (Herring, 1999).

As learners often rephrased their own expressions or used other CSs to ensure output comprehensibility in video-based SCMC due to the relatively short planning time, verbal strategy markers were used frequently to prevent problems from happening by giving signals to their partners about less than perfect language use or to allow them to prepare for rephrasing. In contrast, learners never rephrased their sent messages in text-based SCMC, and consequently, did not have any need for verbal strategy markers.

As regards the conflicting results about the use of fillers were found in Smith's (2003) and Kost's (2008) studies, which both investigated CS use in text-based SCMC, overall this study appears to corroborate Kost's, as fillers along with other types of time-gaining strategies were used more frequently in video-based SCMC than in text-based SCMC. The less frequent use of time gaining strategies in text-based SCMC might be related to the effort of typing as well as reduced time pressure. Learners often repeated their partners' questions to gain some planning time in video-based SCMC, but they never did so in text-based SCMC as the text remained visible and retyping is more effortful than verbal repetition.

While most Interactional Strategies appeared to be more frequent and perhaps easier to use in video-based SCMC, inferential strategies and framing did not seem to be affected by the medium. Despite being the most frequently used CSs in text-based SCMC (Table 4), differences in the uses of these two strategies in the two modes of SCMC were not significant (Table 3). The use of inferential strategies required a good understanding of the preceding conversation and also a certain level of production ability (Farrell & Mallard, 2006; Rost & Ross, 1991). From this aspect, an extended

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processing time and easy access to consult other resources in text-based SCMC might help learners with lower target language proficiency become more capable at using this strategy.

Marking off a new topic is one way to improve input comprehensibility (Long, 1983) and the strategy of framing might help prevent the confusion in the current topic caused by misleading turn taking in text-based SCMC (Smith, 2003b). The larger number of examples of framing in video-based SCMC compared with text-based SCMC might just reflect the fact that participants went through more suggested questions in video-based SCMC. As topic-based questions were provided to help the interaction, participants often clearly marked topic shifts by suggesting moving on to the next question. Most dyads did not go through all the suggested questions within the 30 minutes of time in text-based SCMC, but they had no problem in this regard in video-based SCMC. Moreover, learners often suggested moving on to the next question when they could not expand further on the preceding topic and they did not really mark topic shifts when the new topic was elicited by the preceding one. A well designed task with specific objectives might promote use of framing and help learners develop topics as well, although approach to topic development would differ from typical conversation between native speakers. It is noted that topic framing in text-based SCMC with multiple participants would probably be more difficult as several topics might be discussed in parallel. Indeed, some topics might decay due to simultaneous typing and multiple threads in text-based SCMC with multiple participants (Herring, 1999). Overall, the frequency of the use of framing did not seem to be affected by the communication medium.

Compensatory Strategies. While the infrequent use of Compensatory Strategies in text-based SCMC might be affected by easy access to consult other resources for intended terms, the frequent use of Compensatory Strategies, particularly self-rephrasing, in video-based SCMC were likely to be encouraged by the faster pace of interaction in video-based SCMC.

Focus-on-form Strategies. Despite a greater number of Focus-on-form Strategies occurring in video-based SCMC, examples in text-based SCMC seems to indicate greater potential for learning target-like forms and promoting accuracy. The finding that self-correction was one of the most frequently used CSs in text-based SCMC appears to corroborate the previous studies (e.g. Lai & Zhao, 2006; Shekary & Tahririan, 2006) in that the visual salience and the self-paced feature of text-based

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communication facilitates the noticing of the target language form. Moreover, when exchanging their life experience or personal opinions, some learners attempted to imitate their native-speaking partners' terms and sentence patterns to express similar points (see one example in Excerpt 1). These examples also supported the benefit of learning target-like language forms in text-based SCMC at the point that learners could look back at what they have noticed and this perhaps reinforced their awareness.

Excerpt 1: Text-based SCMC in Chinese

\<Turn 1> LE: 你喜歡旅行嗎? *(Do you like travelling?)*

\<Turn 2> LC: 喜欢 *(Like)*

\<Turn 3> LE: 我也喜歡 *(I like it too)*

   LE: 因為旅行能增廣見聞[8] *(Because traveling can broaden my horizons)*

   LE: 你為何喜歡旅行呢? *(Why do you like traveling?)*

\<Turn 4> LC: 因为我也能增廣見聞 *(Because I can broaden my horizons too)*

   LC: 我也喜欢说外语 *(I also like speaking foreign languages)*

   LC: 吃外国饭 *(eating exotic foods)*

The use of tonal corrections by learners of Chinese in text-based SCMC suggests the potential of a text-based interaction for the phonological awareness in Chinese, which is a tonal language and the four tones in Chinese are essential to convey meaning of what is being said. Although Kitade (2000) found that text-based chat helped learners notice their phonological errors in phonetic languages, there seemed no warrant to infer the effect on Chinese as its writing system is either ideographic or ideo-phonographic. When pinyin (or zhuyin in Taiwan), the official phonetic system to transcribe Chinese characters, is often used as an input method to enter Chinese characters into computers, the typing also involves entering the correct tone. This typing method allows learners of Chinese to be aware of the correspondence between a Chinese character (an ideographic word) and its pronunciation. As such, learners of Chinese in this study often corrected a lexical item by using another tone (e.g. correct the word "沒 (měi; *no*)" to "每 (méi; *every*)") when noticing of tonal mistakes through an incorrectly typed word.

Despite the potential for promoting phonological awareness in text-based SCMC, it seemed more natural to learn target-like pronunciation in video-based SCMC.

Learners tended to check the accuracy of pronunciation in video-based SCMC (see one example in Table 2 – own accuracy check). Moreover, as learners tended to repeat the terms they noticed in their partners' messages for various functions in video-based SCMC, they often received help from their partners to pronounce more accurately when their repetitions were not sufficiently accurate.

Although meta-talk (use target language to reflect on one's own or interlocutor's target language use) was one of the most frequently used CSs in video-based SCMC, most examples of its use were repetitions to indicate learners' perceptions of the correct form they noticed from their partners' responses (see one example in Table 2 – meta-talk). Except for two participants who gave explicit corrections due to the awareness of the tandem or reciprocal learning relationship, most participants tended to accept learners' language mistakes, unless the meaning could not be easily comprehended, or give implicit corrections (i.e. recasting) as would be expected in any real communication situation. The meaning-focused interaction with limited corrective feedback might promote fluency rather than accuracy (Lee, 2002b).

In addition to explicit and implicit corrections, participants sometimes unintentionally offered a corrected form of learners' lexical mistakes when responding to learners' messages. While implicit and incidental corrections might easily be overlooked, Egi (2010) found a positive correlation between the uptake and the awareness of recast in his study. Learners who reacted to their partners' recasting often recognized the recasting as implicit correction. Learners who did not recognise this often viewed the recasting as a response from their partners to show achieved agreement. Learners in this study often repeated the correct form or on occasion applied it to their messages that indicated their awareness of the correct form in different types of feedback, although such reactions might not engage learners as actively as the strategy of negotiation of form (Lyster & Ranta, 1997).

Despite the indication of noticing, a greater number of repetitions of the noticed accurate terms/phrases in video-based interactions does not indicate that video-based SCMC promoted noticing, but rather indicates repetitions as one type of indicative reaction promoted in a spoken discourse. Generally, oral repetitions took less effort (and are more automatic) than typing. It is also possible that learners felt less need to repeat for memorisation in text-based SCMC since they could review the text anytime they wanted. Indeed, some types of recasting appeared to be easily missed in video-based SCMC. Learners of English often missed the corrections to plural nouns

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made by their partners such as correcting the mistake of "milks" to "milk". The correction appeared to be easier for learners to notice in text. From this aspect, the result corroborated Lee's (2008) suggestion that focus-on-form is more salient in text-based SCMC. Moreover, despite only a few occurrences of meta-talk in text-based SCMC, three out of four examples involved discussing or asking for information about one particular language usage that learners had noticed in their partners' messages, which probably engaged learners in higher level of form reflection than repetitions of a correct form. Overall, text-based SCMC appeared to be more effective to enhance this kind of noticing than video-based SCMC.

Paralinguistic Strategies. These strategies used exclusively in text-based SCMC were affected by learners' first language. Learners of English used tilde '~' for extended sounds due to the inapplicable of multiplying letters in Chinese conversation, and they tended to carry over this habit into English conversation. Learners might need to learn some special expressions in target language discourse (e.g. ideographic emoticons[9] in Chinese conversation) and pay attention to different interpretations for the same expression. The emoticon "XD" often means laughing out loud in English discourse, whereas it may mean laughing when feeling slightly embarrassed in Chinese discourse. Without knowing the difference, learners of Chinese might not understand why learners of English 'laughed out loud' at some points.

Mime, the paralinguistic strategy occurring in video-based SCMC, was not used as frequently as learners reported they did in face-to-face communication. One learner reflected that she did not use this strategy as her webcam was too close to catch her gestures. This corroborates the findings of previous studies that the absence of visual access between interlocutors causes a general reduction in the frequency of gesture use (Gullberg, 2006).

Conclusion

Except for the frequent use of Sociocultural Strategies, learners tended to use CSs differently in text-based and video-based SCMC and that might indicate different learning opportunities enhanced by these two modes of SCMC. Learners used Interactional Strategies along with other CSs more (statistically significantly so) in video-based SCMC than in text-based SCMC to solve problems and keep a faster pace of interaction. The prompt meaning exchanges without much reflection and feedback on the language forms in video-based SCMC might promote fluency

development rather than accuracy. Moreover, the possibility of checking the accuracy of pronunciation and receiving help in this regard in video-based SCMC might facilitate pronunciation improvement, although native speakers or at least more proficient interlocutors are required.

On the other hand, learners used CSs less frequently for language problem solving in text-based SCMC. As learners preferred to consult other resources and edit their unsent messages to ensure comprehension and accuracy of target language in text-based SCMC, a task designed to use this feature to promote accuracy development may be an alternative direction to pursue. Indeed, the examples of use of Focus-on-form strategies indicate the greater potential for promoting accuracy in text-based SCMC than in video-based SCMC. The extended processing time in text-based SCMC may help learners attend to target language forms beyond the concern of basic comprehensibility. The text may enhance learners' noticing of certain types of correction from their partners and retain the noticed terms for them to review or employ later. From this aspect, learners may benefit from being explicitly encouraged to develop accuracy through attending the language forms in text-based SCMC. To enhance the benefit of being in a tandem learning relationship, their partners should also be encouraged to help learners in this regard.

This study has extended the investigation of CS use in both text-based and video-based SCMC. Although the study has paved the way for similar studies, there are several limitations that call for more research. The limited generalizability of the findings is an inherent restriction of this study. In addition to a larger sample size, SCMC studies of CS use in different social settings are suggested since CS use and the availability of corrective feedback appear to be affected by social and cultural factors apart from the different SCMC environments. Moreover, given the importance of focus-on-form procedure to SLA, studies that investigate repair moves in both sent and unsent messages are indicated to have a better understanding of learning opportunities enhanced by text-based SCMC.

To conclude, this study supports the positive potential of both text-based and video-based SCMC for SLA through the investigation of CS use. While text-based SCMC appears to have greater potential for learning target-like language forms, video-based SCMC seems particularly effective for fluency development as well as pronunciation improvement.

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Notes

1. They characterized a turn in spoken discourse as a unit interactively determined by interlocutors in a way interconnecting "stop by a current speaker" and "start by a next speaker" and noted that every turn should address to its adjacent pair, unless otherwise provided for.

2. Participants in Kost's study were asked to complete a task of role-play to practice their learnt materials in 10-20 minutes, while participants in Smith's study might have to work on some unfamiliar words to complete a task of jigsaw or decision-making in 30 minutes. In addition, most participants in Kost's were native speakers of English, while participants in Smith's study were of mixed first language backgrounds. These differences might affect learners' processing time and thereby affect their use of fillers; nevertheless, none of them seems to explain the conflicting results of the use of fillers.

3. The present study investigated these strategies to emphasize the different communicative environments in the two modes of SCMC, but did not attempt to compare the differences of participants' facial expressions and use of intonation in the two modes of SCMC due to the difficulty to quantify the occurrences of facial expressions and intonation in video-based SCMC.

4. A turn in text-based interaction seems easier to be defined since overlapping talks as in video-based interaction cannot appear on screen. Nevertheless, a turn should not be determined by each time an interlocutor sends out the message. Interlocutors might split turns to hold the 'floor' in text-based interaction (Simpson, 2002), while they might rush to reach a point into the next turn before a brief pause in spoken discourse for the same purpose (Schegloff, 1981). As the extended turn in spoken discourse is treated as one turn, splitting turns in text-based interaction is viewed as one turn in this study unless these turns are cut in by their interlocutor's message.

5. Learners sometimes searched Google Images and sent their partners photos of particular objects to either facilitate their expression or ensure their comprehension occasionally.

6. The bad reception (sound lagging, stuttering, and echo sound) made the messages more difficult for learners to understand and sometimes the problem was so severe that native speakers might not get the messages as well.

7. Some learners stated that they would wait if they noticed the little icon on MSN

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screen showing their partners were typing. One learner claimed that his partner probably spent time on editing unsent messages as he noticed his partner often sent short messages after long time typing. Even so, he still waited patiently to avoid overlapped turns.

8. This learner of Chinese appeared to copy her partner's term (增廣見聞) directly. She used simplified Chinese characters (one standard character set used in China) during interaction apart from this term, which was in the form of traditional Chinese characters (another standard character set currently used in Taiwan). It is interesting to note that this particular term was also discussed by another dyad. The learner of Chinese in this dyad asked "最后四个汉字是成语吗？*(Are the last four words an idiom?)*" before requesting clarification. She reflected that she wanted to know if it was a 4-words idiom as she noticed native-speakers of Chinese used 4-words idioms largely in daily conversation.

9. This type of emoticons is originally from Chinese characters.

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Appendix 1: After-task Questionnaire

Please answer in English or Mandarin, whichever you feel comfortable to express your thoughts.

Part 1:

Please read the following statements and then choose a response from 1 to 5 to fill in the box after each statement.

1. Never or almost never true of me → 2. Generally not true of me → 3. Somewhat true of me → 4. Generally true of me → 5. Always or almost always true of me

As a language learner, I……………when communicating in the learned language	1 → 5
1. am willing to take risks even though I may make mistakes	
2. pay attention to keep the conversation flowing	
3. change ways of saying things to get my message across	
4. pay attention to the social/cultural aspect of language use	
5. pay attention to the language form such as grammar or word order	
6. use nonverbal techniques to help	
7. give up when I feel I can't do it	
8. think getting the message across is the most important part	
9. take my time to express what I want to say	
10. pretend I understand what my peer said to avoid interrupting the flow of conversation	

Part 2:

Please answer the following questions based on your experience in pair interactions. (Copy and paste " ✓ " to the right box)		Yes	No
1.	Did you chat with your peer in MSN or Skype other than the five times of required?		
	If yes, how many times more and what language did you two use when chatting? ✍		
2.	Did you talk about any of these suggested topics with others in your learned language prior to this participation?		
	If yes, which topic(s) did you talk before and did you think the prior experience help you express yourself better? (Suggested topics in this study: Festivals, Travel, Food, and Leisure activities.) ✍		
3.	Did you prepare how to answer these topic-based questions in your learned language in advance?		
4.	Did you use resources such as Google or simultaneous dictionary when chatting with your peer?		
	If yes, you use in MSN, Skype, or both?		

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5.	Did you review the content of records before sending them back to me?		
	If yes, why did you do so and what did you think/feel when you review the content?		
	✍		
6.	Did you feel any differences in MSN interaction from other types of interaction?		
	Why did you feel so?		
	✍		
7.	Did you feel any differences in Skye interaction from other types of interaction?		
	Why did you feel so?		
	✍		
8.	Did you reckon you were more capable of using the learned language in MSN or the Skype interaction?	MSN	Skype
	Why?		
	✍		
9.	Did you feel less anxious in MSN or the Skype interaction?		
	Why?		
	✍		
10.	Were you able to understand your peer better in MSN or Skype interaction?		
	Why?		
	✍		

Part 3:

Please share more about your experiences in the paired interactions and think about your MSN and Skype experiences respectively.

1. What efforts did you make to keep the flow of conversation in MSN/Skype interactions?

✍

2. How did you overcome language difficulties in MSN/Skype interactions?

✍

3. How did you show your cultural/social awareness (social routine/ politeness/ cultural difference) in the learned language in MSN/Skype interactions?

✍

4. What nonverbal aids did you use to help you communicate with your peer in MSN/Skype interactions?

✍

5. How did you make your expressions (the word pick and order/grammar) as accurate as possible in MSN/Skype interactions?

✍

Thank you for your participation!

Pre-task
- ✓ Background information questionnaire
- ✓ Trial interaction

Supportive information

Four online interactions
- ✓ Text-based SCMC in English
- ✓ Text-based SCMC in Chinese
- ✓ Video-based SCMC in English
- ✓ Video-based SCMC in Chinese

Interaction data

Qualitative and quantitative analyses

Retrospective reports
- ✓ After-task questionnaire
- ✓ Stimulated reflections

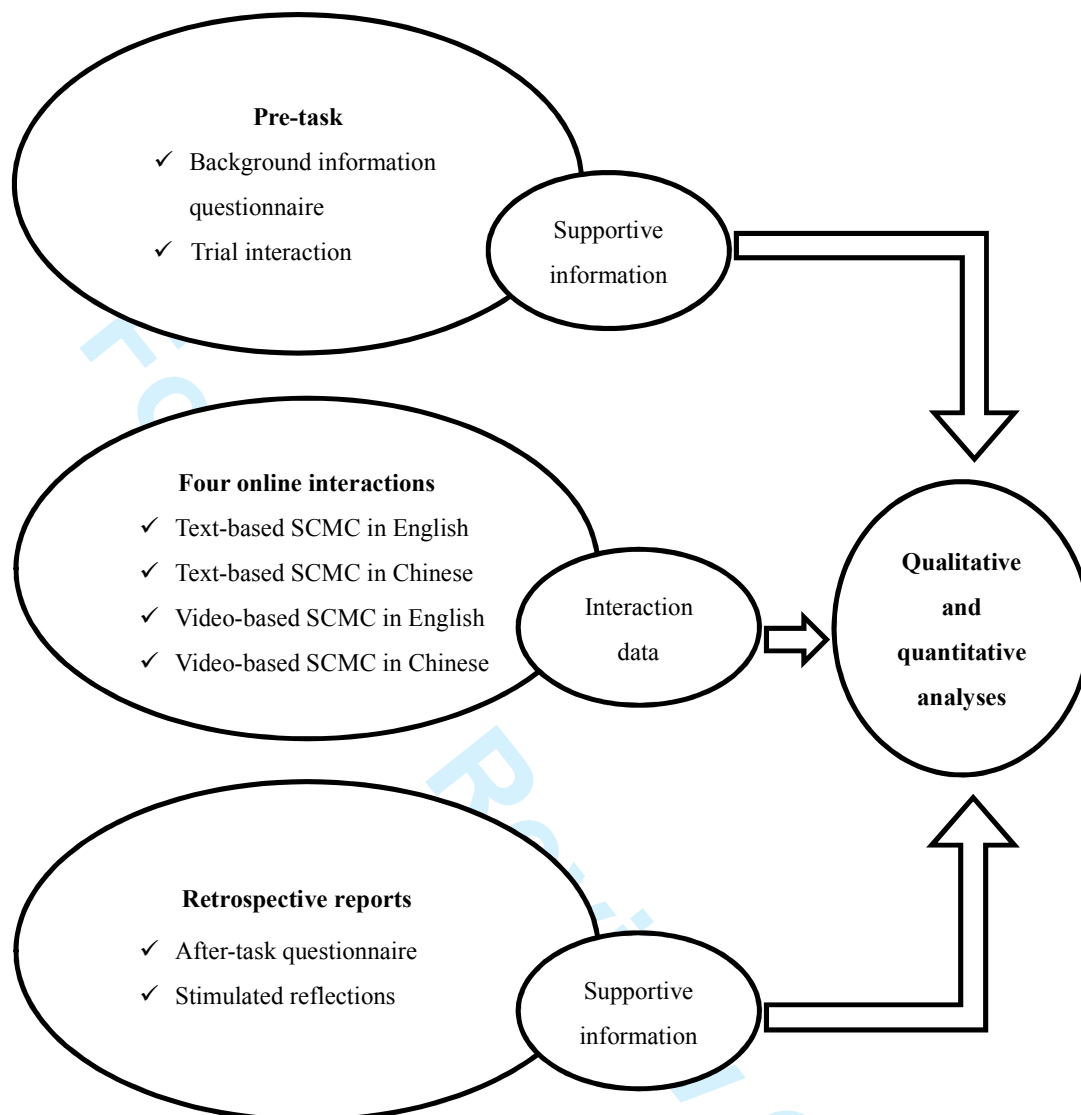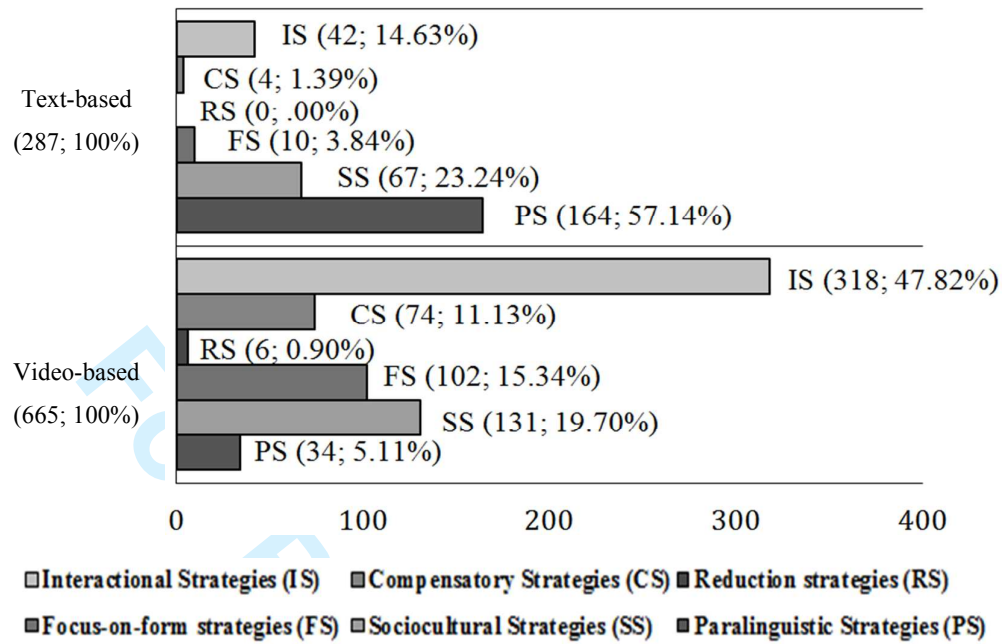Supportive information

Figure 1 Research design

Figure 2 The distribution patterns of CS use in text-based and video-based SCMC

Table 1 Conversation topics

Mode of SCMC	Target Language	Topic
Text-based	English	Local Delicacies
Text-based	Chinese	旅遊 *(Travel)*
Video-based	English	Leisure Activities
Video-based	Chinese	節慶 *(Festivals)*

Table 2: Inventory of communication strategies with descriptions, selected examples, and a check list of practicability in the modes of SCMC

Communication Strategies	Description	Example	Text-based	Video-based
Interactional Strategies:				
- Request for Clarification	Asking for explanation of unfamiliar terms or messages.	"What is Bolognese?"	✓	✓
- Confirmation Check	Repeating the trigger in a rising intonation to ensure one heard something correctly, or using a first language term or asking a full question to ensure the correctness of the input comprehension.	"You you thought it funny to...to speak good of your country. Is that what you mean?"	✓	✓
- Comprehension Check	Asking questions to ensure one's messages are understood.	"You know what I mean?"	✓	✓
- Direct Request for Help	Asking for assistance by an explicit question concerning a gap of one's knowledge in the target language.	"怎麼說 festival? 用中文." *(How to say festival? In Chinese.)*	✓	✓
- Indirect Request for Help	Trying to elicit help from one's interlocutor by indicating the problems either verbally or nonverbally.	A: ⋯所以出去玩，跟他們的⋯同::↑ *(...so when going out, with their... co-::↑)* B: 同事，colleague. *(co-worker, colleague.)*	✓	✓
- Input Elicitation Strategies	Expressing explicitly or passing signals to encourage one's interlocutor to continue talking.	A: Umm now I like rowing. Urr rowing boats[,] urr so that keeps keeps me fit with the university ↑ [.] Umm and what else. (several lines are deleted here) B: [Yeah.][a] [Uh huh.]	✓	✓

- Feigning Understanding	Pretending to understand the preceding message in order to carry on the conversation.	A: So she is like a mentor to you. B: Yeah. A: Do you know the word mentor? B: Not exactly.	✓	✓
- Inferential Strategies	Asking questions or making comments based on established information to test one's hypothesis of the preceding message, show one's current state of understanding, or gain new information.	A: I never I never went to an actual Taiwanese class. What'd they like? B: So your class just for urr some foreigners to attend.	✓	✓
- Framing	Marking the shifts of topics.	Use "Ok. First one." to indicate the closure of chatting and start of topic-based interaction.	✓	✓
- Verbal Strategy Markers	Using verbal marking phrases such as "you know" or "kind of" to indicate the use of strategy or less accurate form in the target language.	"我不知道怎么说用中文. 我们叫 Taj Mahal." (*I don't know how to say it in Chinese. We call it as Taj Mahal*.)	✓	✓
- Omission	Leaving an unknown word as a gap and carrying on as if it has been said with the hope that the interlocutor can fill the gap by context.	"Do you have any ( ), you know? Do you?*"*		✓
- Time-gaining Strategies	Using fillers such as "umm..." or repeating interlocutor's words to fill pauses in order to maintain conversation at times of thinking.	A: What's your favorite leisure activity? B: Umm my favorite leisure activities. Ok. urr I love to see movies.	✓	✓
Compensatory Strategies:				
- Circumlocution	Exemplifying, illustrating, or describing the features of the target object or action.	Use "...urr for example if we play the Facebook, we have to… If I click. If I click an button and I have to wait." to replace "the loading time".	✓	✓

- Approximation	Using one single substitute term with which the target term shares semantic features.	Use the term "vegetables" to replace one specific type of vegetables "mustard leaf".	✓	✓
- Use of All-purpose Words	Using a general "empty" lexical term to replace a specific term to compensate for vocabulary deficiency or to avoid making mistakes.	"So do you play that?" Use "that" to replace one particular term until the learner finally learned how to say it from her peer's talk.	✓	✓
- Literal Translation	Translating a first language term literally to a target language term.	Translate "小吃" literally into "small eat".	✓	✓
- Self-rephrasing	Paraphrasing, restructuring, or repeating one's own utterance. Sometimes new information may be added to the repetition	"Cause there are no place for, urr no proper place for umm like boxing↑ in Taiwan. There are not many places for that."	✓	✓
Reduction Strategies:				
- Message Abandonment	Leaving a message unfinished due to an inability to cope with language difficulty.	"因為我的朋友說，因為..如果..阿...阿我不知道，呵. 阿算了，算了，呵." (*Because my friend said, because... if...ah...ah I don't know hh. ah forget it, forget it hh.*)	✓	✓
- Message Replacement	Replacing the original message by a new one when feeling incapable of executing it.	"That's..haa..that's ha Rea...haa. Are you are you serious that?"	✓	✓
Focus-on-form Strategies:				
- Self-correction	Making self-initiated corrections.	"He don't urr he doesn't usually talk to people."	✓	✓

- Meta-talk	Using the target language to reflect on one's own or interlocutor's use of the target language.	The learner described how people celebrate Halloween in his country and mentioned kids go ask for "好吃的東西 (*something tasty*)". As he noticed the term "糖果 (candy)" from his peer's talk a few turns later, he added "摁，就是糖．對，是給他們吃糖果. (*Um, it is can-. Yeah, what they are given to eat is candy*)" before responding to his peer's talk.	✓	✓
- Own Accuracy Check	Checking the correctness of one's own expression by asking a concrete question or repeating a word with a rising intonation (or a question mark in text).	One learner checked if she pronounced the term "節慶 *(festival)*" accurately by asking "jiē-tǐng? Festivals, jiē-tǐng."	✓	✓
Sociocultural Strategies:				
- Social Formula	Using fixed patterns for social purposes such as greetings, leave takings, or apology.	"Sorry to interrupt you."	✓	✓
- Code-switching	Using first language words in the target language speech for purposes such as to show familiarity or to negotiate or establish intersubjectivity.	"雖然我沒有宗教，但是我也過聖誕節. (Several lines are deleted here.) 嗯一樣的就是那個..復活節．那個Easter, 你知道嗎?"(*Although I don't have religion, I also celebrate Christmas. (Several lines are deleted here.) um what is the same is that…Easter, that Easter, do you know?*)	✓	✓
Paralinguistic Strategies:				
- Mime	Using gestures and body movements to help delivering intended messages.	"真的聖誕樹, 樹會..嗯..它的葉會..可能會破掉 ((gesturing something is falling))." (*The real Xmas tree, tree would.. um.. its leafs could be broken*[b].)		✓

- Use of Text or Symbols to Display the Effects of Intonation	Capitalizing words for stress (ex. AMAZING) or multiplying letters (ex. Sooooo cute) for extended sounds.	"there are lots~~~ of foods" The symbol of tilde here is to display the extended sound.	✓
- Use of Emoticons	Using emoticons (ex. 🙂) or keyboard symbols (ex. ^__^) to display facial expressions and emotional states.	Use a facial expression icon " : (" to represent a sad feeling.	✓
- Punctuation	Using punctuation extensively such as using a question mark to indicate a rising intonation or using it alone to show a confused state, using exclamation to express surprise, or using ellipsis points to indicate the intention to shift turns or topics or to mean "no comment".	"Yes?" The question mark here indicates the rising intonation.	✓
- Substitution	Using abbreviated form of a word (ex. u for you) or a phrase (ex. LOL for laugh out loud) to save typing time or to avoid mistakes.	"Have u ever tried it?" The letter "u" is a substitution for "you".	✓

a. Brackets are used to mark the overlapping speech. This is an example of giving short responses in the primary speaker's turn space.

b. According to the context and her gesture, the learner meant to say "falling" rather than "broken".

Table 3 Quantitative comparisons of CS use in text-based and video-based SCMC

Communication Strategies [a]	Text-based SCMC (N = 12)		Video-based SCMC (N = 12)		Sig.	
	Sum	Mean	Sum	Mean	p ≤ .05	p > .05
Interactional Strategies:						
- Request for Clarification	7	.017	16	.014		.054
- Confirmation Check	3	.007	42	.039	.001	
- Comprehension Check	0	-	5	.006		.058
- Direct Request for Help	1	.002	5	.005	.043	
- Indirect Request for Help	1	.002	21	.021	.000	
- Input Elicitation Strategies	2	.004	108	.099	.000	
- Feigning Understanding	0	-	4	.004	.016	
- Inferential Strategies	15	.045	25	.022		.611
- Framing	9	.029	19	.018		.074
- Verbal Strategy Markers	0	-	45	.042	.000	
- Omission [b]	0	-	5	.005	.024	
- Time-gaining Strategies	4	.006	23	.021	.002	
Compensatory Strategies:						
- Circumlocution	1	.001	11	.009	.016	
- Approximation	1	.001	9	.009	.013	
- Use of All-purpose Words	0	-	6	.007	.047	
- Literal Translation	2	.009	2	.002		.872
- Self-rephrasing	0	-	46	.044	.000	
Focus-on-form Strategies:						
- Self-correction	5	.012	26	.024	.017	
- Meta-talk	4	.015	47	.049	.000	
- Own Accuracy Check	1	.004	29	.032	.009	
Sociocultural Strategies:						
- Social Formula	42	.172	79	.069	.031	
- Code-switching	25	.076	52	.043		.158

[a] Reduction strategies are not included in this table as they were used rarely in both modes of SCMC and left little data to make any further examination.

[b] The text form makes it impossible to "pretend" a word has been said in text-based SCMC. Besides, it is arguable to code any skipped words as intentional use of this strategy while nonverbal clues such as a pause were unavailable in the interaction data. Although Smith (2003) reported that this strategy was used by his participants in text-based SCMC, he did not give examples of use which makes it difficult to compare findings.

Table 4 The six most frequently used CSs in text-based and video-based SCMC

Rank	Text-based SCMC	Video-based SCMC
1.	Social Formula (SS; 48 times, 33.33 % [a])	Input Elicitation Strategies (IS; 108 times, 17.12 %)
2.	Code-switching (SS; 26 times, 18.06 %)	Social Formula (SS; 79 times, 12.52 %)
3.	Inferential Strategies (IS; 21 times, 14.58 %)	Code-switching (SS; 52 times, 8.24 %)
4.	Framing (IS; 10 times, 6.94 %)	Meta-talk (FS; 47 times, 7.45 %)
5.	Self-correction (FS; 9 times, 6.25 %)	Self-rephrasing (CS; 46 times, 7.29 %)
6.	Request for Clarification (IS; 7 times, 4.86 %)	Verbal Strategies Markers (IS; 45 times, 7.13 %)

[a] The proportion of this strategy use to all used CSs excluding paralinguistic strategies.