



## **Discourse Strategies in Computer-Mediated Communication Between Native and Nonnative English Speakers**

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### **Abstract**

This mixed-methods study investigated the occurrence of discourse strategies during native speakers (NSs) and nonnative speakers (NNSs) synchronous computer-mediated communication (SCMC) to determine how NSs may contribute to NNSs' subsequent second language (L2) learning. The data collection consisted of SCMC task-based interaction logs from six pairs (NS-NNS), reflection questionnaires, and interviews. This study identified nine different discourse strategies, including strategies that have not been given much attention by the literature on L2 interactions. Findings indicated that the NSs potentially contributed to the NNSs' L2 development. However, the NSs could have contributed much more if they had taken advantage of the opportunities they had to promote negotiate episodes, expose the NNSs to new input, and encourage them to modify their output. Findings of this study could lead to better language learning task design for SCMC context so that L2 learning opportunities are fully explored. As a result, NNSs will potentially improve their L2 and feel more confident using their language skills meaningfully and authentically in their real-world situations.

*Key words:* Computer-mediated Communication, Discourse Strategies, Second Language Learning



## Introduction

Research (e.g., Warschauer, 2013) shows that computer-mediated communication (CMC) can be a good tool for second language (L2) learning. According to Gass and Mackey (2015), interactions have the potential to facilitate nonnative speakers' (NNS) language development because interactions may promote feedback or negotiation for meaning, especially when there is misunderstanding in the conversation. Negotiation strategies may improve L2 development by exposing NNSs to new input and encouraging them to modify their output as they notice a gap between their interlanguage and the target language. Although research indicates that interactions might contribute to L2 development, studies, specifically focused on a synchronous computer-mediated communication (SCMC) context, suggest that there is still conflicting findings about what type of interaction would benefit NNSs more, i.e., interactions between NNSs and native speakers (NSs) or NNSs and NNSs of English.

Some studies suggest that NNSs' potential L2 development was facilitated through interactions with other NNSs of similar or higher level of English proficiency. Jackson (2011) investigated SCMC text-based interactions between NNSs and NNSs, with intermediate level of English proficiency, as they performed a divergent and a convergent task. He discovered that, regardless of the task type, the NNSs potentially improved their L2 because their interaction exposed them to comprehensible input, modified output, and negative feedback (i.e., the interlocutor informed the speaker of his or her linguistic error). Similarly, Nguyen and White's (2011) study indicated that SCMC interaction between NNSs and NNSs, with similar level of English proficiency, benefited NNSs' L2 development as they were motivated to participate, applied negotiation strategies in order to reach agreement in their discussion, and co-constructed knowledge. Furthermore, Kung and Eslami (2015) investigated SCMC conversations between NNSs and NNSs of different levels of English proficiency, and NNSs and NSs. Quantitative analysis of participants' interactions and posttests revealed that interactions between NNS and NS, as well as, NNS and NNS were effective for L2 development. However, when interacting with higher proficiency learners, lower proficiency learners benefited more than their counterparts in terms of subsequent L2 learning.

In terms of SCMC interactions between NNSs and NSs, similar to Kung and Eslami's (2015) findings, other studies also suggest that learners' subsequent L2 development can be facilitated through conversations with NSs. For example, Chen and Eslami (2013) examined



text-based online interactions between NNSs and NSs as they completed two communicative tasks. The quantitative analysis of participants' interactions and individualized posttests indicated that NNSs increased their L2 vocabulary and grammatical knowledge, which was mainly due to the feedback and input that they received from the NSs.

In contrast, other studies indicate that when interacting with NSs in a SCMC context, NNSs benefited in a limited way. For example, Cabaroglu, Basaran, and Roberts' (2010) mixed-methods study analyzed Skype-based voice interactions between NNSs and NSs. They discovered that, although SCMC can contribute to the improvement of NNSs' L2 communication skills, when interacting with NSs, the NNSs' performance was negatively impacted by social and emotional factors triggered by the presence of the NSs. Moreover, focusing on types of negotiations and corrective feedback, Bower and Kawaguchi (2011) examined text-based SCMC dialogues between NNSs and NSs. Their study results showed that, despite the occurrence of negotiation for meaning, there were very few instances of corrective feedback, suggesting that NSs did not contribute much to NNSs' potential L2 learning.

Even though studies, such as Cabaroglu, Basaran, and Roberts (2010), and Bower and Kawaguchi (2011), suggested that NSs may not necessarily contribute a great deal to NNSs' L2 development as a result of interaction in a SCMC context, research also suggests that the lack of NSs in interactions with NNSs may affect their L2 development. For example, Peterson (2008) investigated SCMC interactions between NNSs and NSs and found that the participants indicated to be highly engaged in the communicative task completion. However, their interaction resulted in low levels of negotiation episodes, which implied little potential for L2 improvement. Among other factors, Peterson suggested that lack of a NS in the interaction might have contributed to his study results because NSs could have facilitated the occurrence of negotiation for meaning, which, consequently, may promote language acquisition.

In sum, the literature on L2 acquisition suggests that there is a need for further investigation in terms of how NSs impact NNSs' potential language development through interactions. Therefore, this study aims to address that need by investigating the occurrence of discourse strategies during NSs and NNSs synchronous text-based interactions to determine how NSs may contribute to NNSs' subsequent L2 learning.



With that said, this study is grounded in the Interaction Hypothesis, which supports the link between interactions and L2 acquisition (Long, 1996). Interactions provide NNSs with opportunities for them to be exposed to L2, encourage them to produce L2, and receive feedback about their utterances (Gass & Mackey, 2015). However, for NNSs to acquire L2 through interactions, they need comprehensible input and interactional modifications, which lead the interlocutors to negotiate for meaning or form (Ellis, 1991).

According to Long (1996), negotiation for meaning occurs in interactions when NNSs and a more competent speaker use signals to indicate that the language of one of the interlocutors needs to be adjusted for them to reach an acceptable understanding level. Negotiation for meaning is done through discourse strategies that allow the interlocutors to apply modifications to their interactions. As Gass and Mackey (2015) pointed out, some discourse strategies are clarification requests, confirmation and comprehension checks, and recasts (i.e., when one interlocutor corrects the other interlocutor's mistake without interrupting the conversation flow). In short, interactions may lead to L2 development by promoting discourse strategies which can allow NNSs to notice that what they say differs from what NSs say (Gass & Mackey, 2015). Consequently, the interactions "direct learner's attention to something new, such as a new lexical item or grammatical construction, thus promoting the development of the L2" (Gass & Mackey, 2015, p. 186).

### **Methodology**

The research design employed in the study was mixed-methods (Slavin, 2007). This design was chosen because discourse strategies and amount of language produced needed to be quantified, whereas questionnaire and interview responses needed to be analyzed in terms of patterns and emerging themes.

### **Participants**

The participants included six female NSs and six female NNSs of English from a university in the United States. The participants' age ranged from 19 to 29. The NSs were American undergraduate students, whereas the NNSs were graduate students whose first language was Chinese. According to self-reporting, all the participants had good computer keyboard typing skills and had experience chatting online through text messages. Based on the language requirements for the university entrance, the NNSs had acquired a minimum score of 80 (out of 120) on the TOEFL internet-based testing.



## **Instruments**

The data collection consisted of background questionnaire, SCMC context task, reflection questionnaires, and interviews. The background questionnaire was based on the information Loewen and Reissner (2009) obtained from their participants. The questionnaire items addressed (1) general information about the participants such as their age, and in the case of NNSs, their first language and length of time in the U.S., (2) their English or foreign language learning background and skills, (3) computer keyboard typing skills, and (4) online chat experiences.

Having in mind that the purpose of a task-based language teaching is “to develop learners’ communicative competence by engaging them in meaning-focused communication through the performance of tasks” (Ellis & Shintani, 2014, p. 135), the FTF and CMC tasks were designed according to Pica, Kanagy, and Falodun (2009) criteria of a task. Pica et al. stated that a task-based language learning activity should contain a type of gap that needs to be filled throughout interaction, force learners to use the language as a tool to complete the task, and have a set outcome. Having said that, the task selected for this study was spot-the-differences, which is a jigsaw task that required participants to collaborate with each other in order to identify eight differences between their pictures.

Another instrument that was implemented in the present study was a reflection questionnaire for the NSs. The purpose of the reflection questionnaire was to gather information about NSs’ perceptions in terms of their experience in task-based SCMC with NNSs. Moreover, an interview was conducted with each NNS. The interview was based on the idea that technology-mediated TBLT should provide the participants not only with learning experience, but it should also allow them to reflect on their learning (González-Lloret & Ortega, 2014).

## **Procedures**

First the participants provided written consent for the collection, analysis, and quotation of the collected data. Then, the NNS participants were randomly paired with the NS participants to perform a spot-the-different task through a synchronous text-based interaction. They formed six pairs or dyads. Next, each dyad filled out a background questionnaire, performed the task (each participant located in different rooms), and answered a reflection questionnaire (NSs only) or were interviewed (NNSs only) about their SCMC learning experience immediately after they completed the task.



## Data Analysis

To determine the amount of language production of each participant, the number of turns and words were counted. Then, based on Gass and Mackey's (2015) work, to investigate the discourse strategies used throughout the communication, the SCMC transcripts were coded for instances of three types of negotiation for meaning (clarification requests, confirmation and comprehension checks), and recasts (i.e., reformulation of learner's utterance delayed or immediately after the error occurs (Smith, 2005))

Next, discourse analysis of the transcripts was applied to identify additional discourse strategies and whether they potentially contributed to subsequent L2 learning. Finally, the reflection questionnaire and interview responses were analyzed by coding patterns and identifying emerging themes (Slavin, 2007).

## Results

The data analysis showed that the number of turns between the dyads was balanced, with an average of 26 turns per participant. However, the NNSs produced more words than the NSs. The NNSs produced 2,707 words, whereas the NSs produced 2,270 words. Furthermore, the data analysis identified 110 instances when NSs and NNSs used discourse strategies during their interactions. As shown in *Table 1*, nine types of discourse strategies were observed in the NS-NNS interactions.

Table 1: *Discourse strategies used and their frequency of occurrence*

Discourse strategies	Used by %		Total
	NSs	NNSs	%
clarification request	7.26	4.54	11.81
confirmation check	3.63	10.90	14.54
comprehension check	0.00	0.00	0.00
recast	4.54	N/A	4.54
self-correction	2.72	7.27	10.00
using of unspecified words	10.90	2.72	13.63
attempting to use specified words	1.81	10.90	12.72
using of foreigner talk	1.81	N/A	1.81
filtering the message	13.63	14.54	28.18
referring to previous text	1.81	0.90	2.72



Four of the types of discourse strategies observed have commonly been reported in L2 interaction research (e.g., Lai & Zhao, 2006): self-correction, clarification requests, confirmation checks, and recasts. Self-correction and negotiation for meaning, specifically clarification requests and confirmation checks, were used by NSs and NNSs as discourse strategies. Additionally, recasts were observed, but only by NSs, as expected since they were the more competent speakers in the interactions. Below are examples to illustrate the occurrence of those strategies.

Excerpt A (dyad 3):

1. NNS: there is a couple at the bottom of this **pituctre**
2. NS: yes and the man has a beard
3. NNS: **picture**

Excerpt A illustrates self-correction. In line 3 of that exchange, the NNS self-corrected the spelling of the word *picture*, which shows that she noticed her misspelling error in line 1.

Excerpt B (dyad 4):

1. NS: Yes, she is behind the two persons that are in the circle of flower. **Does the man**
2. **in the circle of flower have 2 birds on his arms, 1 on his shoulder, and 1 on his**
3. **palm?**
4. NS: flowers\*
5. NNS: **Do you mean that the man in your picture has two birds totally? Mine has**
6. **three.** If so, that is one difference.
7. NS: In my picture he has 4 birds on him and one near his feet. So that would be a
8. difference.
9. NNS: No, **I am sorry. I can also see 4 birds.** That is the same with you.

Different from excerpt A, excerpt B illustrates self-correction of content, as opposed to linguistic aspects. In lines 5 and 6, the NNS mentioned that she could see three birds in her pictures. Later, in line 9, she corrected herself by stating she could actually see four birds.

The exchange above also shows the occurrence of a clarification request. Unclear about the number of birds that the NS was referring to, in line 5, the NNS used the clarification request discourse strategy to ask for extra information to better understand what the NS had asked.



Excerpt C (dyad 3):

1. NS: how many **flowers** do you have in the bottom left corner
2. NNS: **flower?**
3. NS: **under the palm** tree to the left
4. NNS: **under the palm?**
5. NNS: I am not sure that are flowers

In excerpt C, the NNS used the confirmation check strategy twice (lines 2 and 4). Since her level of proficiency suggested that she already knew the meaning of the word *flower* and phrase *under the palm*, it is unclear why the NNS applied the confirmation checks. She might have asked confirmation checks to gain time while she was looking at her picture to find the answer.

Excerpt D (dyad 4):

1. NNS: Second, the women's hair is up to her shoulder, and she **has some front hair**
2. **on her forehead.**
3. NS: Okay. So, you do not have flowers on the bushes, nor a little girl near the couple.
4. NNS: No, I do not have.
5. NS: Yes, she **has short bangs.**

Excerpt D illustrates the occurrence of a recast. Not knowing the word *bangs*, the NNS described it as “some front hair on her forehead.” Later, in line 5, the NS confirmed what the NNS said about the hair of the woman in the picture. However, she used a recast or reformulated the NNS's words as she implicitly pointed out that *bangs* is the word for “some front hair on her forehead.”

The other six discourse strategies observed in the NS-NNS interactions, which have not received much attention in L2 research, were: using unspecified words (13.63%), attempting to use specified words (12.72%), using foreigner talk (1.81%), filtering the message (28.18%), and referring to previous text (2.72%). Out of those six strategies, all of them were used by NSs and NNSs, except for foreigner talk, which was used only by NSs. It was expected for foreigner talk not to be used by NNSs because it is a type of modified input usually used by NSs when addressing NNSs. The six strategies are presented in the following examples.





Excerpt E (dyad 1):

1. NS: is there **anything** on the table?  
(...)
2. NNS: Yes, **on the table**, a bottle is easy to be recognized in front of the small people.
3. There are several **other things I cannot recognize, maybe just food**.
4. NS: okay there is only one **thing** on the table in mine so that is difference number six.

In this particular dialogue, the NS was holding a picture which showed a table with a plate on it, whereas the NNS's picture showed a table with a bottle and plates. Line 1 of their exchange indicates that the NS applied the strategy using unspecified words. Instead of using the specified word of the item that she saw on the table (i.e., plate) or specified words of possible items that could be found on a table (e.g., cup), she chose to use *anything*, which is an unspecified word. In contrast, line 3 illustrates that the NNS applied the attempting to use specified words strategy. Although she used the word *things*, she tried to specify by saying "maybe just food." In line 4, the NS used an unspecified word again instead of trying to specify what *thing* referred to. In that excerpt, the NNS also used the strategy filtering the message. By typing "on the table" in the beginning of the sentence before mentioning what was on the table, the NNS called the NS's attention to the area of the picture that she wanted her to focus on.

Excerpt F (dyad 2):

1. NNS: **i remember you mentioned something about a water fountain**, i don't see
2. any in my picture  
(...)
3. NS: **Going back to the second difference** - I have two girls between the two couples.

In excerpt F, both interlocutors applied the strategy referring to previous text. In line 1, instead of just saying that she did not see any water fountain in her picture, the NNS chose to make clear that she was going to mention something discussed earlier in the conversation. The NS used the same discourse strategy in line 3, when she said "Going back to the second difference." To avoid any confusion, she wanted to make sure that the NNS was aware that



the information she was going to share referred to the second difference that they found earlier.

Excerpt G (dyad 5):

1. NNS: (...) there is also a girl on that round plate  
(...)
2. NS: No, I don't have these children. I do not have the **round plate** (merry go round)
3. in my picture.

In excerpt G, rather than simply typing *merry-go-round*, the NS used foreign talk (line 2) to refer to it. Noticing that the NNS described the merry-go-round as *round plate*, the NS might have chosen to use the same term to avoid confusion. As evidenced in the excerpts above, all nine strategies were used to address lexical meaning as opposed to form or grammatical aspects of the English language.

Participants' focus on vocabulary during their interactions was also reflected in the qualitative data. In terms of learning, the NNSs reported that they learned or reviewed new vocabulary during the interaction. For instance, as evidenced in her quote below, the NNS from dyad 1 stated that the SCMC text-based interaction helped her learned new vocabulary, such as *swing set*, and review words (e.g., *pond* and *beard*) that were already familiar to her, but she did not remember them.

I learned, I think, the *swing set*. I know *swing*, but I learned *swing set*. And also I learned the *pond*. I know the word the pond, but if you just say very quickly, 'What is ... [referring to *pond*]?' On Skype I can think, 'Oh, what is this called? Oh, I remembered. It's called *pond*.' *Beard*. I know the word beard, but I just think it can be called uh- I think, 'Oh, it can be called *beard*, but I'm not sure. Maybe.' But, oh, [her NS partner] said, posted that is *beard*. 'Oh, it's *beard*.'

Even though the NNSs reported that their interactions promoted L2 vocabulary learning, the number of new words was very limited. Nevertheless, most of the NNS found the SCMC task-based interaction challenging due to vocabulary. The NNS from dyad 2 expressed that by saying, "I'm really afraid I can't express things clearly when we can't see each other and talk face to face." The NSs also implied that vocabulary made their interactions with NNSs challenging. For example, the NS from dyad 1 reported,



The SCMC was difficult because if I was unsure of what she was asking, I had to ask for clarification and then our messages were a little out of order. Also, we were not as specific when describing objects during SCMC.

Another challenge mentioned by the NSs was the wait time during their SCMC interactions. The NS from dyad 3 expressed that by saying, “The SCMC task was difficult in my opinion because I had to wait for responses.” However, the NNSs did not report wait time as a challenge.

As illustrated in the quotes below, despite the challenges, both NNSs and NSs recognized the benefits of SCMC in language learning and most of them even recommended SCMC to people who want to learn or improve their English. For example, the NS from dyad 4 stated, “I believe SCMC allows the English learner to see the different sentence structure and the way words are spelled.” Also, the NNS from dyad 2 pointed out the benefits of SCMC in language learning by saying,

You can learn spelling. You can learn lots of spelling of different words. You can learn what you did right, what you did wrong during typing. And you can double-check your grammar during typing because it's... I don't want to make stupid mistake during my communication with the other person on computer. It's so obvious there. So, I would double-check my grammar and spelling things.

Only one participant reported that she would not recommend SCMC to L2 learners. She said, “I would not [recommend SCMC task-based interaction to people who are learning English] because it was very difficult to express our ideas and ask questions. It would be very easy for people to become confused while using SCMC” (NS from dyad 1).

In sum, as most NNSs reported, although the SCMC task-based interaction did not result in much L2 learning, they enjoyed their online experience because they had the opportunity to practice their L2. Furthermore, the NNSs and most of the NSs expressed that they believed that SCMC had the potential to help learners improve their L2.

### **Discussion**

To speculate if the discourse strategies identified during the NS-NNS interactions potentially contributed to subsequent L2 learning, three aspects embedded in the Interaction Hypothesis (Long, 1996) were considered: L2 input, output, and negotiation episodes, including discourse strategies. In other words, were the NNSs exposed to L2 and encouraged to produce L2? Did the interactions promote negotiation for meaning, including the use of



discourse strategies? The data suggested that while the identified discourse strategies were used to facilitate the understanding between the interlocutors, their benefits to L2 development varied. The NSs potentially benefited the NNSs' L2 learning by providing input through the following strategies: recasts, self-correction, filtering the message, attempting to use specified words, and referring to previous text. The frequency of occurrence of those strategies combined was 24.51% (used only by the NSs), whereas they were used 33.81% by the NNSs (not including recasts since NNSs were not expected to use recasts). For example, the excerpt G above showed an example of a NS (dyad 5) using a recast. In that exchange, the NNS indicated that she did not know the word *merry-go-round* by describing it as *round plate*. The NS, then, provided her with new input as she corrected the NNS's lexical error through the use of a recast ("I do not have the **round plate** (merry go round) in my picture.").

The NSs might also have benefited NNSs' L2 learning by encouraging them to produce output or language through negotiation for meaning strategies (i.e., clarification requests and confirmation checks). The frequency of occurrence of those strategies combined was 10.89% (used only by the NSs), while they were used 15.44% by the NNSs. Below is an example of a clarification request from the dyad 1 dialogue.

1. NS: (...) the girl that you are talking about, i do not think i see her. **she is in between**
2. **the two couples?**
3. NNS: yes. between the two couples, there are two girls. One is the girl with the ball
4. as we mentioned before, another one is closer to the bottom right couple and she is
5. walking toward us and she has short hair.
6. NS: okay that girl is not in my picture! so that is number three.

As a result of the clarification request strategy applied by the NS in lines 1 and 2, the NNS was encouraged to produce 42 words (lines 3-5) to describe the location of a girl in her picture.

However, the strategies using unspecified words and foreigner talk could have limited NNSs' L2 learning opportunities. Using foreigner talk was rarely applied by the NSs. The frequency of occurrence of that strategy was only 1.81%. When using unspecified words (10.90%), the NSs limited the input that the NNSs received from them, which could have prevented the NNSs from improving their L2 vocabulary. As shown in excerpt E in the results



section, by using the word *anything* as opposed to *plates*, which was the specified word for the item that the NS could see on the table in her picture, she limited the NNS's input not in terms of number of words, but vocabulary. Through the use of *plates* or other specified words, the NS could potentially have enhanced the NNS's L2 vocabulary. With that said, the strategy attempting to use specified words, which was mostly used by the NNSs, could have contributed to their L2 development. However, in most instances, the NSs did not take advantage of that strategy to provide the NNSs with new vocabulary. The frequency of occurrence of specified words by the NSs was only 1.81%, in contrast to 10.90% by the NNSs.

Contrary to Peterson's (2008) argument, the presence of NSs in SCMC did not lead to many negotiation episodes. Nevertheless, the findings of this study indicated that the NSs might have contributed to the NNSs' L2 development by providing them with some input and encouraging them to practice L2, as discussed above. However, the NSs could have benefited the NNSs' L2 learning much more if they had taken advantage of the opportunities they had to negotiate and expose the NNSs to new input. As illustrated in Table 2, the frequency of occurrence of input providing strategies applied by the NNSs (33.61%) was actually higher than the input providing strategies applied by the NSs (24.51%). The same is true to the output promoting strategies, which are important discourse strategies because they encourage NNSs to produce L2. The frequency of occurrence of those strategies by the NNSs was 15.44%, in contrast to 10.89% by the NSs. By applying more input providing and output promoting strategies, the NNSs suggested that they were more engaged in the interaction and took more advantage of the opportunities to create negotiation episodes. Sotillo (2006) also found that NSs did not negotiate much when interacting with NNSs in a SCMC environment and that NNSs were more engaged in the interaction. When investigating SCMC interactions between NNSs and NNSs, Peterson (2008) also found that NNSs indicated to be highly engaged in the communicative task completion.



Table 2: *Frequency of occurrence of input providing, output promoting, and the use of unspecified words discourse strategies*

Discourse strategies	Used by %	
	NSs	NNSs
Input providing (i.e., recasts, self-correction, filtering the message, attempting to use specified words, and referring to previous text.)	24.51	33.61*
Output promoting (i.e., clarification requests and confirmation checks)	10.89	15.44
Use of unspecified words	10.90	2.72

\*It does not include recasts since NNS were not expected to apply them.

Furthermore, Table 2 also shows that the NSs used unspecified words (10.90%) more than the NNSs (2.72%), whereas the NNS used more attempting to use specified words (10.90%) than the NSs (1.81%). One possible explanation for the NSs to have chosen to use unspecified words more than their partners could be that they were probably trying to avoid negotiation episodes. It seems that the NSs' perception of the interaction was of a task that just needed to be completed as opposed to an opportunity for them to improve their NNS partners' English skills. That perception was also suggested by their comments on having to wait for their partners' answers and choosing their words. For example, the NS from dyad 2 stated, "We also had to choose our words wisely and had to wait for the other person to respond to our thought. It was a slow process to find the 8 differences." By saying "choose our words wisely", the NS implied that she made sure to use words that her partner would understand. Additionally, similar to the other NSs, she felt that the task was time consuming because of the wait time.

On the other hand, the NNSs did not make any comments about the task being time consuming. Also, they applied the strategy attempting to use specified words more than the NSs. It was probably because their perception of the interaction was not of a task that just needed to be completed. Instead, to NNSs, the interaction was an opportunity to practice their L2; therefore, they were more engaged in the process of completing the task than the NSs. For example, the NNS from dyad 1 indicated that she was engaged in the task by saying that one



benefit of interacting in a text-based SCMC environment was that she had more time to think and describe her picture. She also said, “I can check [the NS’s] description once and again and again.” That NNS’s comments showed that she was engaged in the interaction by taking advantage of the SCMC setting benefits to practice her L2 skills.

Similar to Sotillo’s (2006) study, the interactions between NNSs and NSs focused more on meaning than grammatical aspects. The NNSs reported that throughout the interaction they learned or reviewed few new English words, varying from one to five words. There are three possible explanations for their limited L2 vocabulary learning. First, it was probably because of their level of English proficiency. The NNSs were either masters or doctoral students at a university in the United States; therefore, they had a good level of English proficiency. Second, another possible explanation was how the task was designed. It was a short task, which took them an average of 38 minutes to complete. Also, the items in the pictures might have been familiar to the NNSs. Finally, it could have been due to the fact that the NSs did not take the advantage of providing their NNS partners with more input, pushing for more modified output, or creating more negotiation episodes.

The present study findings also identified nine different discourse strategies. Some of these strategies have been reported in many other SCMC studies (e.g., Lai & Zhao, 2006), such as clarification request, confirmation check, self-correct, foreigner talk, and recast. The strategies of using unspecified words have been reported in very few SCMC studies. For example, Altun (2013) identified some use of unspecified words, which he referred to as use of all-purpose words. As for the strategies attempting to use of specified words, filtering the question, and referring to previous text have not been reported in studies on task-based SCMC interactions between NNSs and NSs.

Most importantly, this study adds more evidence about how NSs impacted NNSs’ subsequent L2 development as a result of their SCMC task-based interactions. Similar to Cabaroglu et al.’s (2010) and Bower and Kawaguchi’s (2011) studies, the present study also found that NSs did not contribute much to NNSs’ potential L2 learning. That was mainly because of NSs’ limited use of discourse strategies that encourage L2 development through input, output, and negotiation episodes.

### **Conclusion**

The present study aimed to investigate the occurrence of discourse strategies during NSs and NNSs SCMC task-based interaction in order to determine how NSs may contribute



to NNSs' subsequent L2 learning. This study identified nine different discourse strategies, including strategies that have not been given much attention by the literature on L2 online interactions. Findings indicated that the NSs potentially contributed to the NNSs' L2 development, but in a very limited way. The NNSs had several opportunities to have been exposed to a more enhanced input and pushed to produce more modified output, which might have led them to improve their L2. However, most of those potential opportunities were not fully explored due to lack or ineffective use of discourse strategies. The NSs could have contributed much more if they had taken advantage of the opportunities they had to negotiate, expose the NNSs to new input, and encourage them to produce more output. Nevertheless, findings indicated that text-based SCMC was a good collaborative language learning tool that promoted interactions which motivated and encouraged NNSs to practice their L2 skills.

### **Recommendations**

Findings of the present study indicated that the NSs impacted the NNSs' subsequent L2 development in a limited way. Yet, SCMC still proved to be a good collaborative tool for language teachers to use in the classroom due to its potential to improve L2 through negotiation episodes. However, language teachers need to be aware that, as Smith (2005) suggested, the quality and amount of negotiation episodes are a good predictor of eventual lexical acquisition. Therefore, in order to create more negotiations episodes, teachers should take three aspects into consideration. First, they should explicitly explain to L2 learners how SCMC can benefit their L2 learning and teach them how to effectively implement discourse strategies in their interactions so that they potentially improve their L2 as much as possible. If teachers invite NSs to interact with L2 learners, teachers should also clearly explain them the importance of SCMC in language learning, and teach and encourage them to use discourse strategies effectively to enhance learners' L2 skills. Second, teachers should create task that encourage learners to engage in longer interactions in order for learners to have a higher change of engaging in negotiation episodes. Finally, language teachers should design a task based on learners' L2 proficiency level. For example, if teachers choose to use spot-the-difference task, they should select pictures with challenging vocabulary as a way to encourage more negotiation episodes and discourse strategies. In short, findings of this study could lead to better language learning task design for SCMC context so that L2 learning opportunities are fully explored.





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