Acquisition of L2 Through Internet Chat

Dami Lee
(Hanyang University)


This study reports on a longitudinal study that examines two L2 learners’ interactions with a native speaker through Internet chat during one semester. The purpose of the study is to determine whether interactions through synchronous chatting are facilitative of L2 acquisition. The data of this study reveal that (1) interactions in synchronous chatting induced a series of negotiations of meaning although lexical and content negotiations predominated these interactions; (2) L2 learners were provided negative feedback during chat interactions although not many instances of negative feedback were provided; a great deal of negative feedback was offered on lexicon and morphosyntax; (3) there was a slight improvement of L2 morphosyntax by one participant over time. Taken together, the results of the study indicate that interaction in Internet chat can be facilitative of L2 acquisition.

I. INTRODUCTION

As network-based communication (NBC) becomes a relatively well-known technological innovation, various forms of NBC are making their way into second language (L2) learning environments. Among the various forms of NBC, synchronous communication, called chatting, is increasingly being viewed as a promising tool for L2 acquisition. Its use is becoming popular because communication through synchronous chatting bears a striking resemblance to oral interaction (Chun, 1994; Pellettieri, 2000).

If NBC chats closely resemble face-to-face oral interaction, which is claimed to be important for L2 development (Long, 1983, 1996), it would be logical to assume that language practice through chat will have “some of the same benefits for second language development as practice through oral interaction” (Pellettieri, 2000, p. 59). This assumption has led many researchers to

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examine whether NBC chats can facilitate L2 acquisition in a fashion similar to face-to-face oral interaction. They have found that synchronous chatting generates high levels of interactivity as in face-to-face conversations; that is, synchronous chatting was found to induce a series of negotiations of meaning (Blake, 2001; Soyoung Lee, 2002; Pelletieri, 2000).

Interestingly, however, while previous research has mostly been concerned with the negotiation of meaning in synchronous communication, there is a paucity of chat research except Pelletieri (2000) that investigates negative feedback in synchronous chatting. The purpose of the present study is to examine whether interaction in synchronous chatting fosters the provision of negative feedback as well as the negotiation of meaning and whether such negative feedback and negotiation are facilitative of L2 acquisition. More specifically, this study addresses the following research questions:

(1) Does interaction in synchronous chatting induce the negotiation of meaning?
(2) Does interaction in synchronous chatting foster the provision of negative feedback?
(3) Does interaction in synchronous chatting lead to L2 development?

II. RESEARCH BACKGROUND

1. Interaction and L2 Acquisition

Researchers have attempted to better understand the relationship between interaction and L2 acquisition. Among the various hypotheses regarding it, the interaction hypothesis (Long, 1983, 1996) has been most widely examined. The interaction hypothesis claims that oral interaction in which communication breakdowns occur and are resolved facilitates L2 acquisition. At the heart of its claim is the negotiation of meaning, which is defined as "the modification and restructuring of interaction that occurs when learners and their interlocutors anticipate, perceive, or experience difficulties in message comprehensibility" (Pica, 1994, p. 496). That is, the negotiation of meaning is collaborative conversational adjustments made in order to understand each other better. According to the interaction hypothesis, interactional modifications arising from the negotiation of meaning make input more comprehensible because modified input is "reduced in length, of here-and-now orientation, with semantic repetition, paraphrased, simple or with brief topics" (Long, 1996, p. 413), which can lead to some type of L2 development.

In addition to the claim that interaction involving meaning negotiation facilitates L2 acquisition, the interaction hypothesis also posits that interaction can contribute to acquisition through the provision of negative feedback. Negative feedback is "input that provides direct or
indirect evidence of what is grammatical" (Long, 1996, p. 413). It is distinguished as 'preemptive' (i.e., explanation of grammatical rules) and 'reactive' (i.e., feedback). Reactive negative feedback can be either explicit or implicit. Explicit negative feedback refers to an overt error correction, whereas implicit negative feedback includes communication breakdowns and recasts (i.e., the interlocutor's target-like reformulation of all or part of the learner's erroneous utterance). Proponents of the interaction hypothesis claims that negative feedback arising from negotiated interaction may promote L2 development by providing the learner with the opportunity to pay attention to mismatches between the interlocutor's and his/her own utterance. Attention is claimed to be crucial for learning to take place (Schmidt, 1995).

It will be interesting to examine whether negotiated interaction will occur in synchronous chatting. In what follows, we review L2 studies that examine the relationship between interaction in synchronous NBC and L2 acquisition.

2. Synchronous Communication and L2 Acquisition

Some researchers have claimed that communication through synchronous chatting may be even more beneficial for enhancing L2 development than face-to-face communications, because "the learners can view their language as they produce it and they are more likely to monitor and edit their messages" (Toyota & Harrison, 2002, p. 83). This claim has been examined, and it has been found that synchronous chatting has many potential benefits.

Kern (1995), for example, who examined 40 L2 French college students for a semester, compared the learner output produced in oral discussions with that produced in electronic chats. He reported that electronic chats led to more target language production than oral discussions; L2 learners produced a greater number and wider variety of verb forms and clause types in electronic chats than in oral discussions. Interestingly, however, he found that despite such an increase in learner production, grammatical accuracy suffered.

Blake (2001) examined whether networked learner-learner discussions produce negotiation of meaning as predicted by the interaction hypothesis. In his analysis of 50 Spanish L2 learners' chat logs, he found that negotiation of meaning commonly occurred; most negotiations were triggered by lexical confusion, and few negotiations by morphosyntactic confusion. His finding of the paucity of syntactic negotiations led him to conclude that negotiations might not suffice for supplying evidence needed to develop L2 morphosyntactic knowledge.

Pelletieri (2000) is one of the few studies of NBC chatting that is concerned with the role of negative feedback in the development of L2 grammatical competence. Pelletieri examined 20 L2 Spanish learners who participated in synchronous chatting for a quarter. He found that NBC chats provided opportunities for form-focused interactions as well as meaning-focused
interactions. Furthermore, he reported that learners provided and were provided negative feedback, which resulted in the incorporation of target-like forms into subsequent turns. Pelletieri (2000) speculated that:

In NBC chats, the learners have the added advantage of visual saliency of the model form, whether delivered explicitly or implicitly, which can allow even greater opportunities for a cognitive comparison of the new form against the speaker’s original utterance, which is also visible on screen. (p. 81)

If this speculation is correct, negative feedback provided in chat interactions should be beneficial for the development of L2. Attention to L2 forms has been claimed to be necessary for the restructuring of L2. In line with Pelletieri’s study (2000), the present study examines whether interaction in synchronous chatting fosters the provision of negative feedback and whether such negative feedback is facilitative of L2 acquisition.

III. METHOD

1. Participants

The participants in this study were Sujin and Mina. They were third-year English major students in a local university in Korea. They participated in the study as volunteers. Although both were intermediate learners of English, Sujin was the more advanced of the two. The TOEIC scores of Sujin and Mina were 740 and 665, respectively. In addition to these two participants, a native speaker of English, Bill, participated in the study as their chat partner throughout the semester. He had been teaching English for four years in Korea when the chat project started. Although Bill was teaching English conversation at the same university as Sujin and Mina attended, he had not met them before they began chatting on line.

2. Tools

Freechal, a commercial chat program, was used in the study. It allows for synchronous communication on the Internet; Freechal users can communicate with other users through a chat window once they log in with a username and password. Subjects were not monitored during the interaction, but they were asked to submit the record of their interaction via email as an attachment file after each chat session.
3. Procedures

Participants had 13 chat sessions at about one- or two-week intervals for a semester. Each chat session lasted for 40-50 minutes. The first session was a training session to ensure that they would feel comfortable using Freechal. While the training session took place in a university computer lab, the other 12 chat sessions originated from each participant's home using his/her own computer.

Participants were given 15 broad topics to discuss in the training session, and were asked to decide upon a specific topic for the following week in advance at the end of each chat session. Participants were also asked to use English only in their chats and submit the record of their interaction via email as an attachment file after each chat session.

4. Analysis

The chat data were analyzed using discourse analysis methods. Discourse analysis has attracted recent attention as a tool for SLA research (Markee, 2000). Following Pellettieri's study (2000), sequences of chatings were tallied in which communication breakdowns took place and some overt indication of the need for negotiation was evident. These sequences were then categorized into three types according to triggers\(^1\): lexical, morphosyntactic, and content. Examples of each of these categories, taken from the data in the present study, appear in (1)-(3):

(1) Lexical Trigger

1 S(ujin): ASAP
2 M(ina): what is ASAP?
3 S(ujin): ASAP As Soon As Possible
4 M(ina): I see.

(Participants Profile in session 1)

(2) Morphosyntactic Trigger

1 M: I actually have been sick two days ago

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\(^1\) Gass and Varonis (1994) noted that the typical conversation schema consists of a trigger, indicator, response and reaction. Briefly, a trigger is the stimulus for the negotiation that ensues. An indicator is a signal that there is a communicative problem. A response is a clarification or explanation to clarify misunderstanding. A reaction to the response is a cue signaling that communicative breakdowns are resolved.
2 B: did you start to get sick 2 days ago or 
3 have you been OK for two days?
4 M: I started to get sick 2 days ago 
(Favorite Sports in session 2)

(3) Content Trigger

(Bill and Mina were talking about pro basketball players)
1 B: I think it is sick.
2 M: Sick? you mean addicted to sports is sick?
3 B: No, them getting a lot of money is sick. 
(Pro-Sports in session 3)

As seen in (1), lexical triggers are those where communication problems are caused by particular lexical items. As shown in (2), morphosyntactic triggers are those in which communication breakdowns are attributable to morphology or syntax. Content triggers as presented in (3) are those where a speaker’s message is problematic.

Next, sequences of chatting that include an error and negative feedback were classified as being explicit or implicit, and again each being lexical, morphosyntactic or content based on the error type. The interlocutor’s overt error correction was considered as explicit negative feedback in the study, whereas recasts were counted to be implicit negative feedback. Examples of explicit and implicit negative feedback, taken from the data in the present study, appear in (4)-(5), respectively.

(4) Explicit negative feedback on lexicon

1 M: I like badminton...
2 S: badminton. Right?
3 M: thanks
(Favorite Sports in session 2)

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Implicit negative feedback sometimes coincided with a negotiation move as shown in excerpt (5) above. S makes a confirmation of M’s utterance in the context of negotiation, which in turn functions as implicit negative feedback, indicating that M’s utterance is not target-like. Such cases were double coded as both the implicit negative feedback and the negotiation of meaning.
(5) Implicit negative feedback on morphosyntax

1 M: almost women like watching
2 S: most of women like it?
   (Favorite Sports in session 2)

Finally, L2 learners' target-like usage (TLU) of grammatical morphemes was investigated to see whether interaction in synchronous chatting leads to L2 development (see section IV for the TLU formula).

IV. RESULT AND DISCUSSION

Before looking at the results, we briefly describe the data from the quantitative perspective. Table 1 shows a summary of the chat data. Table 1 demonstrates that overall the L2 learners, Mina and Sujin, produced fewer words and shorter utterances and sentences in chatting than their English-speaking partner, Bill. However, they produced more utterances than the English native speaker, indicating that they played an active role in the synchronous chatting.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Summary of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mina</td>
</tr>
<tr>
<td><strong>Word</strong></td>
<td></td>
</tr>
<tr>
<td>number total</td>
<td>4022</td>
</tr>
<tr>
<td>mean number per session</td>
<td>365</td>
</tr>
<tr>
<td><strong>Utterance</strong></td>
<td></td>
</tr>
<tr>
<td>number total</td>
<td>1014</td>
</tr>
<tr>
<td>mean number per session</td>
<td>92.2</td>
</tr>
<tr>
<td>mean length by word</td>
<td>4.09</td>
</tr>
<tr>
<td><strong>Sentence</strong></td>
<td></td>
</tr>
<tr>
<td>number total</td>
<td>569</td>
</tr>
<tr>
<td>mean number per session</td>
<td>51.7</td>
</tr>
<tr>
<td>mean length by word</td>
<td>5.61</td>
</tr>
</tbody>
</table>

* includes all utterances produced by the participants regardless of their being complete/ incomplete.
** includes complete sentences only.
With regard to the first research question, whether interaction in synchronous communication fosters meaning negotiations, the data provide evidence that negotiations between participants and among participants took place throughout the chatting sessions. Negotiations were triggered by both the native speaker’s and L2 speakers’ sides with almost the same frequency. Table 2, which displays the total number of turns and negotiations observed over 12 chat sessions, demonstrates that although the negotiations comprised a small fraction of the overall conversational turns (i.e., ranging from 0.8% to 4.2%), they did occur each session.

<table>
<thead>
<tr>
<th>Session</th>
<th>Total Turns</th>
<th>Negotiation</th>
<th>Negotiations/Turns</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Participants Profile</td>
<td>282</td>
<td>7</td>
<td>2.5%</td>
</tr>
<tr>
<td>#2 Favorite Sports</td>
<td>165</td>
<td>7</td>
<td>4.2%</td>
</tr>
<tr>
<td>#3 Pro-sports</td>
<td>193</td>
<td>8</td>
<td>4.1%</td>
</tr>
<tr>
<td>#4 Friendship</td>
<td>191</td>
<td>5</td>
<td>2.6%</td>
</tr>
<tr>
<td>#5 Marriage</td>
<td>273</td>
<td>8</td>
<td>2.9%</td>
</tr>
<tr>
<td>#6 Hobby</td>
<td>257</td>
<td>2</td>
<td>0.8%</td>
</tr>
<tr>
<td>#7 Jaesa</td>
<td>203</td>
<td>7</td>
<td>3.4%</td>
</tr>
<tr>
<td>#8 Unification of Korea</td>
<td>198</td>
<td>8</td>
<td>4.0%</td>
</tr>
<tr>
<td>#9 My Life in 10 Years</td>
<td>150</td>
<td>6</td>
<td>4.0%</td>
</tr>
<tr>
<td>#10 Transgender</td>
<td>161</td>
<td>2</td>
<td>1.3%</td>
</tr>
<tr>
<td>#11 KSAT Test</td>
<td>183</td>
<td>5</td>
<td>2.7%</td>
</tr>
<tr>
<td>#12 Winter Vacation</td>
<td>224</td>
<td>3</td>
<td>1.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2480</strong></td>
<td><strong>68</strong></td>
<td><strong>33.8%</strong></td>
</tr>
</tbody>
</table>

To look at the negotiations made during synchronous NBC interaction, we classified them into three categories according to trigger types. Table 3 shows that negotiations were triggered by various aspects of discourse (i.e., lexical, morphosyntactic and content items).

<table>
<thead>
<tr>
<th>Trigger Type</th>
<th>Total</th>
<th>Lexical</th>
<th>Morphosyntactic</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>68</td>
<td>31</td>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td>(100%)</td>
<td>(100%)</td>
<td>(46%)</td>
<td>(13%)</td>
<td>(41%)</td>
</tr>
</tbody>
</table>

Table 3 demonstrates that lexical negotiations occurred most frequently (i.e., 46% of the time). They were mostly signaled by "What's that?" as shown in (6).

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3 Only two people participated in chat in sessions 9 and 10; Mina and Bill in session 9 and Sujin and Bill in session 10.
(6) Lexical negotiation

1 B: I don’t have a PhD
2 S: PhD?? what’s that?
3 B: Doctor. Medical or other.
4 S: aha I see...
   (Pro-Sports in session 2)

Although lexical confusion accounts for the most common form of negotiation in the present study, the percentage is much lower than other studies (i.e., ranging from 60% to 95%) (Blake, 2001; Pellettieri, 2000). This might be attributable to the different task type employed in our study; we used a conversational task in which participants were to discuss the topics they chose, while other studies required the completion of a given task such as an information gap activity and a jigsaw task. In the present study having a conversation on a topic the participants themselves selected might have enabled them to avoid using complicated words and attend to more global aspects of communication. In the previous studies, on the other hand, completing a task might have required participants to use certain target words to negotiate.

Table 3 also shows that although content negotiations occurred less than lexical negotiations, they did happen quite a lot (i.e., 41% of the time). Communication breakdowns on the content of an utterance sometimes occurred because of a failure to understand the utterance itself, as in (7), where S does not understand B’s utterance in line 1. Here negotiation was signaled by “what’s that?”.

(7) Content negotiation

1 B: we need to do that one person at a time
2 S: what is that?
3 B: Mina, tell us about yourself first
4 M: yes
   (Participants Profile in session 1)

At other times they occurred due to cultural differences as in (8) in which an English native, B, does not understand M’s explanation on the Korean custom jaesa. In (8) negotiation was signaled by an explicit statement of non-understanding.
(8) Content negotiation

(Mina and Bill were talking about jaesa)
1 B: is it (jaesa) like 'Korean Thanksgiving' ceremony?
2 M: sort of...religious service requires special food
3 Korean Thanksgiving ceremony is on day
4 and religious service is at night
5 S: right...
6 B: I don't understand
7 M: the special performance's time is different
8 and the way is similar
(Jaesa in session 7)

The fact that content negotiations occurred almost as frequently as lexical negotiations in this study can be attributed to several possible causes. First of all, it could be due to the conversational tasks this study employed to elicit interactions. It has been reported that conversational tasks trigger content negotiations more often than information gap or jigsaw tasks (Soyoung Lee, 2002; Nakayama, Tyler, & Lier, 2001). Second of all, it is also likely that interactions between the native and nonnative speakers caused difficulty in understanding the overall content of utterances.

Compared with lexical and content negotiations, morphosyntactic negotiations comprised a small portion of all negotiations (i.e., 17% of the time), which is consistent with the findings of earlier studies (Blake, 2001; Soyoung Lee, 2002; Pelletieri, 2000). This is because overall morphosyntax carries a relatively low communicative load (Brock, Crookes, Day, & Long, 1986). This paucity of morphosyntactic negotiations raises the question of whether interaction in synchronous chatting can have a positive impact on the development of L2 morphosyntactic knowledge. We come back to this issue later.

The second research question was to determine whether chat participants provide and are provided negative feedback in synchronous chatting. The data provide evidence that negative feedback occurred in both explicit and implicit forms.

<table>
<thead>
<tr>
<th>TABLE 4</th>
<th>Lexical</th>
<th>Morphosyntactic</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explicit</strong></td>
<td>6</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td><strong>Implicit</strong></td>
<td>9</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15(41%)</td>
<td>20(54%)</td>
<td>2(5%)</td>
</tr>
</tbody>
</table>
Table 4 summarizes the negative feedback found in 12 chat sessions. According to Table 4, about 41% of the instances of negative feedback were provided on lexical items. (9) and (10) provide examples.

(9) Explicit negative feedback on lexicon

(They were talking about traits of an ideal mate)
1 M: in my case...patience...considerate...and truth
2 S: certainly!!
3 B: Mina, **try honest, not truth for a person**
4 M: thanks.
(Marriage in session 5)

(10) Implicit negative feedback on lexicon

1 M: I think indoor person has a few friends
2 B: **Introverted people** have a few friends
3 M: Yes
(Friendship in session 4)

In line 3 of (9), B overtly indicates that M's word choice is semantically wrong, and offers a model form. In line 2 of (10), on the other hand, B recasts by modifying "indoor person" to "introverted people."

Pellettieri (2000) also reports that there was abundant evidence of negative feedback on lexicon in both explicit and implicit forms. Oliver (1995), on the other hand, reports that while erroneous word choice triggered the negotiation of meaning, it rarely induced recasts. Oliver's study is different from Pellettieri's and the present study in that whereas the former examined children aged between 8 and 13 in oral interactions, the latter investigated adults in chat interactions.

Table 4 also shows that a great deal of negative feedback was focused on morphosyntax. (11) and (12) provide examples.

(11) Explicit feedback on morphosyntax

1 M: human are social animal
2 just hope
3 B: Mina, add 's' to both nouns
   (Marriage in session 5)

(12) Implicit feedback on morphosyntax

1 S: I gained the driver's license last winter.
2 B: I got a driver's license.
   (Winter Vacation in session 12)

In line 3 of (11), B explicitly corrects M's singular-plural agreement errors. In line 2 of (12), on the other hand, B recasts by modifying S's erroneous utterance.

Compared with the morphosyntactic negotiation, negative feedback on morphosyntax occurred a lot more. We have pointed out earlier that morphosyntactic negotiation could have been discouraged due to a low communicative load of morphosyntax. The provision of negative feedback on morphosyntax, on the other hand, might have been encouraged because morphosyntactic errors are easy to remedy. Actually, negative feedback was provided to utterances that had just one or two simple errors. There was few case of negative feedback on the content.

Before moving to the third research question, it should be noticed that out of 37 cases of negative feedback, only 8 instances were incorporated into the subsequent turns. Interestingly, however, despite the low rate of incorporation, negative feedback was sometimes noticed and used by other participants. In (13), for example, B provides S with the explicit negative feedback "say personalities" and M, who was attending B's feedback, uses it in line 3.

(13) Noticing feedback addressed to others

1 S: similar & opposite personality can match?
2 B: it's good. but say personalities. plural.
3 M: so your friends have opposite personalities?
   (from Friendship in session 4)

Even more interesting is that the negative feedback, which is visually displayed, stimulated I, 2 learners to reflect on the various aspects of L2 grammar. In (14), B rephrases M's erroneous utterance by providing the definite article, which leads M not only to notice her error but also to reflect on her more general problem of the article usage.
(14) Reflection on morphosyntax

1 M: there are so many problems is Korean education system
2 S: that’s right
3 M: woops!
4 not is....in T.T
5 S: just mistake
6 B: problems in the Korean ed.
7 M: the
I often forget ‘the’
8 S: me, too.

(KSAT Test in session 11)

With regard to the third research question, i.e., whether interaction in synchronous chatting leads to L2 development, the data provide inconclusive evidence that one L2 learner showed a slight improvement in English morphosyntax over time, while the other did not. To see if there was L2 development through interaction in synchronous chats, participants’ usage of regular plural ‘-s’ and indefinite article ‘a/an’ was examined. These morphemes were chosen for two reasons; they are the ones that received negative feedback most frequently during chatting, and they have been reported to be acquired relatively late in L2 acquisition by L1 Korean speakers (Lee, 1996).

Figure 1 shows the target-like usage (TLU) of plural ‘-s’ over time (see Appendix 1 for the percentages of TLU). The TLU formula set forth by Pica (1983) is as follows:

\[
\text{No. Correctly Supplied Morphemes} = \frac{\text{No. Obligatory Contexts}}{\text{No. Obligatory Contexts} + \text{No. Supplied in Nonobligatory Contexts}}
\]

That is, the numerator is a count of the number of the regular plural bound morpheme ‘-s’ correctly supplied by participants in their chat. The denominator combines obligatory contexts and number of morphemes supplied in nonobligatory contexts (i.e., incorrect usage).

In Figure 1 chat sessions from 1 to \(10^4\) are ordered along the horizontal axis and the percentages of target-like usage of the plural morphemes are along the vertical axis. Figure 1

\(^4\) Figures 1 and 2 do not include sessions 9 and 10 in Table 1 because only one L2 learner participated in those sessions. Thus, sessions 9 and 10 in Figures 1 and 2 are equivalent of sessions 11 and 12 in Table 1, respectively.
shows that Mina’s TLU tended to improve slightly over time, whereas Sujin’s did not, suggesting that Mina’s performance on plural improved through interaction in chats, whereas Sujin’s did not.

FIGURE 1
Target-like Usage of Plural ‘-s’ (%)

FIGURE 2
Target-like Usage of Indefinite Article ‘a/an’ (%)

Figure 2 displays TLU of indefinite article ‘a/an’. Again, it shows that there was a slight increase in the accuracy of Mina’s TLU over time, meaning that Mina’s performance on the indefinite article improved through interaction in synchronous chatting. It also shows that while
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there was wide variation in Sujin’s TLU (i.e., from 29% to 100%)\(^5\), any increase of accuracy of TLU over time was not evident, suggesting that Sujin’s performance on indefinite article did not improve through interaction in chats.

Interestingly, it is only Mina who tended to slightly improve her morphosyntax over time. How can we explain this finding? It could be a result of Mina’s being the more active participant of the two. As we can see in Table 1, which summarizes the chat data quantitatively, Mina produced more words, utterances, and sentences than Sujin in chats. It is also possible that Mina was more conscious of her L2 grammar: Mina not only consciously reflected on her own grammar as in excerpt (14) but noticed and used the negative feedback addressed to the other participant as in excerpt (13). Although the results show that only one participant tended to improve her English morphosyntax over time, they suggest that interaction in synchronous chatting might have a positive effect on L2 development by fostering the provision of negative feedback as well as the negotiation of meaning.\(^6\)

To summarize the results of the study, (1) interaction in synchronous chatting fostered the negotiation of meaning; a great majority of the negotiations that occurred during chatting pertained to lexicon and content; (2) L2 learners were provided both explicit and implicit negative feedback during chatting although the amount of negative feedback offered was small; negative feedback on lexicon and morphosyntax predominated in chats; (3) as a result of chat interaction, one L2 learner, but not the other showed a slight improvement of L2 morphosyntax over time.

V. CONCLUSION

The study was conducted to see whether interaction in synchronous chatting is facilitative of L2 acquisition. The results of this study demonstrate that synchronous chatting induced the negotiation of meaning on various aspects of L2 and that although only small amount of negative feedback was offered, L2 learners were provided negative feedback in both explicit and implicit forms. The results also show that there was a slight improvement of L2 morphosyntax by one participant. Taken together, the data suggest that interaction in synchronous chatting can be facilitative of L2 acquisition.

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\(^5\) Sujin appeared to avoid using indefinite articles. She only used three indefinite articles in session 1 and one article in session 7. That is why she had 100% TLU of indefinite articles in sessions 1 and 7.

\(^6\) One of the reviewers pointed out that L2 learners’ morphosyntactic development of this study could have been confounded by other factors such as motivation, attitude, and input from other sources. In further research these factors should be considered.
It is important to note that while previous research reported synchronous chats' potential for fostering the negotiation of meaning, this study is one of the few examining NBC's potential for providing negative feedback. Further research is needed, however, to decide whether negative feedback arising from synchronous chatting can lead to L2 development. In future studies it will be interesting to examine whether a visual display of negative feedback in synchronous chatting is more effective than oral feedback provided in face-to-face interaction. It will also be interesting to compare negative feedback in native-nonnative chats with that in nonnative-nonnative chats.

The findings of this study are based on a small-scale pilot study, and thus generalizations of the findings should be made cautiously. To substantiate the claim that interactions in chatting are facilitative of L2 acquisition by fostering the meaning negotiations, further research should be conducted longitudinally involving both pre- and post-testing of learner knowledge.

REFERENCES


**APPENDIX**

<table>
<thead>
<tr>
<th>Type</th>
<th>Session</th>
<th>Mina 's'</th>
<th>Sujin 's'</th>
<th>Mina 'a/an'</th>
<th>Sujin 'a/an'</th>
</tr>
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Applicable level: tertiary education, general education  
Key words: L2 acquisition, chatting, interaction, negotiation, negative feedback

Lee, Dami  
Division of English Language and Culture, Hanyang University  
Sa 1-dong, Ansan, Kyonggi 425-791, Korea  
Tel: (031) 400-5349  
Fax: (031) 416-1038  
Email: leedami@hanyang.ac.kr

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