Effects of computer-mediated communication on learners’ phrasal verbs and their negotiation

Natsuyo SUZUKI

Introduction

Technology plays a role nowadays in providing sites for interpersonal communication in distance learning communities, as well as acting as a tool to extend what face-to-face (FTF) L2 learning can achieve (Kern, 2006). One thing which seems certain is that a computer extends opportunities for language learning in a way that would be challenging to orchestrate in traditional classroom settings, and so how students can engage in collaborative tasks mediated by technology has become a central issue for researchers (González-Lloret & Ortega). In addition, there is a growing need to investigate whether or not findings in the FTF classroom correspond to those in the computer-mediated communication (CMC) environment. This study uses a quantitative approach to investigate computer-mediated learning, which seems to be especially relevant to well-theorized task-based language teaching and learning whose approaches are to maximize active learning in language education (Vanden Branden, Bygate & Noris, 2009) in the discipline of second language acquisition (SLA).

Computer-Mediated and Face-to-Face Communication

The literature to date has exposed issues of inconsistency in the methodological practices of research within SLA (Ziegler, 2013), showing different definitions of ‘computer-mediated’ interaction among researchers (Kenning, 2010). The term “computer-mediated communication” is used when human-human interactions take place via a computer, and is distinct from human-computer interactions, in which students encounter a task relating to a specific aspect of L2 learning in a designed program (Fischer, 2012). In a CMC environment, learners work on screen individually and can interact with another via either local or global networks to achieve the set goals using a variety of resources, which include authentic language in written and spoken forms, and visual resources such as icons, images, colors, and shapes (Stockwell & Tanaka-Ellis; 2012). On the other hand, in a FTF environment, learners may interact directly or work together to orally discuss any information that they have.

Consequently, CMC allows learners to be sensitive to a particular mode such as the linguistic mode (written language), the visual mode (the choice of fonts) (Lamy, 2012) in the course of communicating...
using a variety of online resources on screen. There is a substantial body of research which has investigated tasks (e.g. jigsaw, decision-making) and L2 learning (Chapelle, 2007) via online text-based technological affordances. The findings have reasonably claimed some benefits for second language acquisition (Blake, 2000; 2007; Fischer, 2012; Chun & Yong, 2006; Lai, Fei, & Roots, 2008; Lee, 2010; Pellettieri, 2000, Sauro, 2013; Shekary & Tahririan, 2006), since these opportunities owe much to the visual display of text-based CMC. Besides, with textual enhancement strategies in a visual mode, learners have the time and opportunity to reflect on their language production more saliently, which may lead to noticing (Chapelle, 2001; Chun & Yong, 2006; Lai et al., 2008; Meskill, 2005; Lee, 2010; Pellettieri, 2000, Sauro, 2013; Shekary & Tahririan, 2006).

Meanwhile, in the studies of mixed modal (oral and text) technical affordances and L2 acquisition, Lee’s dissertation study (2010) revealed no statistical difference between CMC via both text- and voice-chat and FTF interactions by English as a second language (ESL) learners in regard to the acquisition of L2 new lexical items. He suggested that when negotiation of form and meaning took place or the learners had some background knowledge of the target words, oral and written vocabulary acquisition could be promoted regardless of communication media. Moreover, Ziegler (2013) examined the efficacy of interaction in synchronous CMC (SCMC) using the chat function (1) and FTF contexts through meta-analysis based on journal articles and dissertations published between 1990 and 2013, and revealed that “no significant differences were found between the two modes on the development of learners’ oral and written skills or their productive and receptive skills” (Ziegler, 2013, p. 155). Furthermore, as for the effects of SCMC on online written chat tasks, Oskoz (2009) investigated learner-learner feedback to discover patterns of assistance and scaffolding for L2 development similar to those used in tutor-learner interaction in the FTF context; however, the findings showed that the learners did not necessarily focus on the target form (subjunctive), regardless of the means of communication. Overall, the means (CMC or FTF) and mode (oral and text or written) of L2 skills do not significantly affect the ways learners pass through cognitive processes.

Interaction in CMC and FTF Communication

Contrary to traditional FTF classrooms in which learners necessarily tend to work on tasks with an awareness of the presence of the teacher, L2 learners in CMC classrooms have more opportunities to interact with other learners via text- or voice-chat. Their findings indicated that negotiation of form between learners in CMC led to self-repair or modification of others' output less frequently (Van den Branden, 1997) and less effectively than in teacher-led negotiation (Lyster, 2001) (2). It is a great challenge to know whether interactions among learners of English as a foreign language (EFL) actually promote similar learning to those with teachers (Philip et al., 2014). Since fewer instances of
modifications were observed among learner-learner classroom interactions due to their low proficiency and face-saving, more priority was given to communication rather than to discussing language (Foster & Ohta, 2005; Fujii & Mackey, 2009; Mackey et al., 2003; Philip, Walter, & Basturkmen, 2010).

Based on what we have seen here, the following research questions are addressed:

1) Does CMC have any impact on the written development of phrasal verbs?
2) Does CMC have any impact on learners’ command of the two types of phrasal verbs (new vs. old) at the time of the post-test?
3) Does CMC have any impact on learners’ attention to form and meaning?

Method

Participants

Participants in this study were twenty-eight Japanese university students who had been enrolled in a Communication English class (n = 15: 10 men and 5 women; mean age: 19) or a Multimedia English class (n = 13: 1 man and 12 women; mean age: 18) in the first semester at a university in Tokyo. The Multimedia English class was classified as a CMC group in which second-year or higher students could enroll, whereas the Communication English class was classified as a communication group and was a compulsory language class in which only first-year students could enroll. The participants in both groups studied in the faculty of business administration, and their English proficiency was at a false beginner level; in fact, they were low-level L2 learners who still had difficulties in comprehending English, as well as in writing, reading and speaking, because of their lack of the basic grammatical and lexical knowledge which they were supposed to have learnt in their secondary schools. Many of them fell under the category of an elementary proficiency level in the Test of English for International Communication (TOEIC) Reading and Listening test (as reported by the institution). The students were familiar with a non-communicative traditional approach (e.g. grammar translation), and it was new for the CMC group to use a computer-equipped classroom which enabled them to work via interactive text- and oral-based communication.

Procedure

Both the CMC and FTF group received the same task (dictogloss), however, the main differences between both groups were the means of communication in different classroom environments. The CMC group worked online using an in-class network with rich visual support, through which they could share and see other students’ writings on screen and could discuss the task via headsets, while the students in the FTF group worked with pen and paper using printed and photocopied materials in a traditional
classroom and the teacher used an audio speaker for listening dictation during the lesson. In the CMC classroom, each participant was seated in regularly-fixed seats in a computer assisted language learning (CALL) room, and was assigned randomly to a pair or a small group for interaction via voice-chat function without directly facing each other. One dictogloss task, from input to feedback, lasted about 40 to 50 minutes, since it was conducted as a part of the course syllabus of an intact class. The total time used for the experiment was between about 240 and 300 minutes over 6 weeks. The procedure operated as follows:

Pre-test

One week prior to the instructional treatment, the students took a listening comprehension test using TOEIC Bridge (4) sample questions (34 questions), since the dictogloss task involved phonological input to be dictated and reconstructed in the task. In addition, a pre-test of true-or-false questions featuring phrasal verbs (30 questions; e.g. ‘Did you get to the airport OK?’) was used to check the equivalence of the two groups.

Priming

In the instructional setting, both the CMC and FTF groups started with a quiz on phrasal verbs made up of six questions, in which each participant was asked to match a picture or graphics and a phrasal verb on a sheet provided or on screen. The first task for priming was meant to facilitate learners in visually mapping the meaning of verb-particles (e.g. go out, eat out, go along). After doing the quiz individually, the participants checked the answers with partners in the classroom, and were then required to utter the formulaic pattern aloud. To predict the task story beforehand, the participants had the opportunity to take a look at graphic information in the form of a ‘Wordle’ (5), on screen/sheet. In a Wordle, each word is displayed in a different size according to the frequency with which it is used in the text: the bigger the word, the more times it appears in the article. It helps the viewers to guess the story without reading the whole written passage.

Task

Dictogloss tasks allow learners to do an individual dictation exercise followed by reconstruction of a text with their peers until they reach a consensus. The participants reconstructed a part of the sentences given, which included target phrasal verbs in a short conversational story (e.g. “Do you [blank] at the weekends?”). To have the participants engage in meaning-focused stories, conversation-style listening materials, ‘Grammar Snacks’ (6), which included several phrasal verbs in each episode, were employed. While the participants reconstructed sentences collaboratively, they were allowed to use L1 (7). At the start, the teacher (a researcher) provided note-taking sheets (on screen or on paper) for students to do a sentence reconstruction activity individually ahead of the listening exercise. Each sentence was provided several times. After the individual dictation activity, the participants compared their texts
with their partners and engaged in looking for differences with other peers in order to reconstruct the sentences collaboratively. At the end of the task, they were given the answers and checked them against their reconstructed sentences.

Post-tests

There was a test using true or false questions (40 questions including 20 new items and 20 items previously studied) immediately after the task.

Data Collection, Coding, and Analysis

The test scores on the phrasal verb written tests were obtained by counting the number of correct answers from each group and analyzed using ANOVA. The post-test also tested phrasal verbs which the participants had already learnt in the past lessons as well as new phrasal verbs in order to compare any difference in scores. However, the number of questions in the pre-test was 30, whereas the post-test included 20 new verbs plus 20 previously studied verbs. To solve the imbalance in this comparison, the greatest common denominator ($30 \times 40 = 120$ points) was calculated for analysis.

All students’ conversations were audio-recorded in both the CMC and the FTF groups. It is noted that, due to the small number of digital recorders available, there was no choice but to collect data asynchronously in the FTF classroom. For this reason, it was not possible to record every single participant’s utterance in the FTF classroom. Audio-recording took place in groups and was rotated 3 to 4 times. On the other hand, every participant’s utterance could be obtained simultaneously from the CMC group in the CALL classroom. This gap made a difference to the total volume of elicited data.

Participants’ conversational interactions during the dictogloss task were all audio-recorded, transcribed, and used to identify the number of LREs, referred to as any part of the conversation in which language learners talk about the language they produce in conversational interaction. As described in the previous section, a number of studies have employed LREs to give an explanation of L2 learning (Basterrechea & García Mayo, 2013; Colina & García Mayo, 2007; Kim & McDonough, 2008; Kim, 2013; Lesser, 2004). The LREs identified were categorized as either grammar-based or meaning-based LREs. Grammar-based LREs include discussion of grammatical features, such as phonological, semantic, morphological, or syntactic forms, whereas meaning-based LREs cover any discussion including negotiation for meaning (i.e., checking, clarification, or repairs) which aimed to avoid communication breakdown. It is noted that data was collected from all utterances produced by students during the task, which is basically identified as being made up of LREs, since the dictogloss itself is a form-focused task which directs learners to talk about language in order to complete the task.

It is noted that previous studies of lexical acquisition (e.g., Basterrechea & García Mayo, 2013; Lee, 2010) have classified LREs different from this study. For example, Basterrechea & García Mayo
Effects of computer-mediated communication on learners’ phrasal verbs and their negotiation (SUZUKI)  

SUZUKI (2013) put emphasis on the difference between lexical LREs (i.e., word meaning, word choice, use of prepositions, and spelling) and grammatical LREs (i.e., morphology or syntax) by investigating the 3rd person singular present tense (-s) morpheme in English in content and language integrated learning (CLIL) and foreign language (EFL) contexts. However, the current study does not concentrate exclusively on lexical LREs; instead, it separated negotiation for meaning (e.g., asking for clarification, rephrasing, and confirming what the participant thinks s/he has understood) and form. Therefore, grammar-based LREs in the current study includes lexical LREs, as well as morphology and syntax.

Turns were first coded as grammar-based or meaning-based LREs, and then grammar-based LREs were subcatagorized as phonological LREs, morphological LREs, syntactic LREs, lexical LREs, spelling, articles, adverbs, or auxiliaries. The coding by three researchers, who studied second language acquisition in the same graduate school as the researcher did, resulted in an agreement of 82.2% (Chronbach $\alpha = .822$). The number of LREs in each category were statistically analyzed using Pearson’s chi-square to compare the computer-mediated communication group with the face-to-face group.

The following examples from the data show the two categories of meaning-based LREs and grammar-based LREs presented in (1), in which Students O and T in the CMC group deliberated over the reconstruction of a sentence based on individual dictation. Student O (line 1) asked for Student T’s answer (line 2); having heard it, Student O suggested ‘to the read?’ in line 3, and Student T repeated the words ‘to the read?’ to confirm or show disagreement. The first two lines represent meaning-based LREs in which students did not pay attention to any particular language problems: Student O asked a question in order to find out Student T’s answer. However, line 3 to 8 represent grammar-based LREs, in which both students deliberated over whether or not ‘to’ was supposed to be used in the sentence. Their attention to a particular aspect of language was identified in their negotiation. However, their attention was directed to a phonological aspect, and there was no evidence of any discussion including common linguistic terms like ‘verb’, ‘noun’ or ‘phrasal verb’. Therefore, line 1 to 8 in (1) are classified under the subcategory of phonological LREs, which falls into the category of grammar-based LREs. English translations are provided in the parentheses.

1. Student O: ‘Nante kaita?’ [Did you catch any words?]
2. Student T: It’s time find out food reading.
3. Student O: To the read?
4. Student T: To the read?
5. Student O: It’s times finder? Find?
6. Student T: Find out, kana? [Find out, perhaps?]
7. Student O: Find out to?
Results

The first research question asked whether CMC and FTF communication have differential impacts on the development of phrasal verbs, as seen in the written test scores. The data obtained from the pre- and post-test scores using true or false questions are shown in Figure 1. The average score of pre-test in CMC group was 67.14 (SD = 11.0), those in FTF group was 70.0 (SD = 14.81); whereas those of post-test in CMC was 72.86 (SD = 13.54), those in FTF group was 65.25 (SD = 15.19), which indicate that they show little difference in both groups. From the graph, we can see that the FTF group slightly increased their scores in the post-test, whereas the scores of the CMC group fell. However, both achievement slopes are almost identical and no statistical significance was found either within the groups, $F(1, 20) = 3.09, p = .94$, or between them, $F(1, 20) = .21, p = .64$.

The second research question asked about the impact of each means of communication on the two types of phrasal verbs (new vs. old) at the time of the post-test. The scores for old (previously studied) and new phrasal verbs were calculated using ANOVA. The average score of old items of CMC group

---

**Figure 1.** The change of scores from the written pre-test to the post-test in face-to-face and computer-mediated communication groups (SE ± 1)
was 9.80 (SD = 3.55), FTF group was 11.73 (SD = 2.68), whereas the average post-test score of CMC was 9.80 (SD = 3.22), FTF group was 12.27 (SD = 2.57). The two bars on the left show the old phrasal verbs, while the two bars on the right represent new phrasal verbs. The bar graph shows that both groups performed similarly regardless of whether or not they had previously studied the phrasal verbs. In fact, the statistics indicated no significant difference in the learners’ command of the two types of verbs (new vs. old) at the time of the post-test, $F(1, 23) = .28, p = .61$, or between learners in the two groups, $F(1, 23) = 4.08, p = .055$.

The third research question asked whether CMC and FTF communication in dictogloss tasks have differential impacts on learners’ attention to form and meaning. Table 1 shows the frequency of turns in which the form was negotiated in the CMC and the FTF groups. The frequency of LREs in each category was expressed as the percentage of the total number of LREs.

The number of turns paying attention to form and to meaning in the CMC and FTF groups were submitted to chi-square analysis, which showed that there was a significant difference between grammar-based LREs and meaning-based LREs in the CMC group and the FTF group ($\chi^2(1) = 4.62, p = .002$). Although no significant difference was found between subcategorized grammar-based LREs
in the CMC ($\chi^2(7) = 3.93, p = .11$), a significant difference was found in the FTF groups ($\chi^2(7) = 1.71, p = .02$), indicating that lexical LREs and possibly phonological LREs were more negotiated in the FTF group.

**Discussion**

**Development of phrasal verbs**

Concerning the first research question of whether or not the means of communication (CMC and FTF) used for collaborative tasks have different impacts on the learning of phrasal verbs, the findings showed no significant difference either between the pre- and post-test scores or between the groups. The results were in line with those from a previous study (Lee, 2010), which was conducted with ESL learners on the acquisition of L2 new lexical items. In addition, the results match those observed in Ziegler’s meta-analysis research (2013), which revealed no significant difference between the two means of communication on the development of learners’ oral and written skills, or on that of productive and receptive skills. However, his study did not discuss any development of phrasal verbs.

The initial expectation was that the different means of communication might influence the ways of interaction and the development of the target form when an opportunity presented itself. In particular, it was assumed that the learners in the CMC group would be exceptionally sensitive to the visual mode of technology. However, contrary to Lamy’s (2012) study, which suggested that a particular visual mode may facilitate learners’ attention, the findings did not show a particular difference between pen-and-paper materials and the use of a colourful visual mode (i.e. Wordle) which was shown to the learners

---

**Table 1. Comparison of the amount and type of LREs in a computer-mediated communication group and in a face-to-face group**

<table>
<thead>
<tr>
<th>Category of LREs</th>
<th>CMC Total LREs = 313</th>
<th>FTF Total LREs = 157</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar-based LREs</td>
<td>104 (33%)</td>
<td>98 (62%)</td>
</tr>
<tr>
<td>Phonological LREs</td>
<td>17 (5.0%)</td>
<td>29 (18.4%)</td>
</tr>
<tr>
<td>Morphological LREs</td>
<td>1 (0.3%)</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Syntactic LREs</td>
<td>3 (0.9%)</td>
<td>10 (6.3%)</td>
</tr>
<tr>
<td>Lexical LREs</td>
<td>39 (12.5%)</td>
<td>42 (26.7%)</td>
</tr>
<tr>
<td>Spelling</td>
<td>9 (2.8%)</td>
<td>0</td>
</tr>
<tr>
<td>Articles</td>
<td>2 (0.6%)</td>
<td>5 (3.1%)</td>
</tr>
<tr>
<td>Adverbs</td>
<td>23 (7.3%)</td>
<td>8 (5.1%)</td>
</tr>
<tr>
<td>Auxiliaries</td>
<td>10 (3.1%)</td>
<td>3 (1.9%)</td>
</tr>
<tr>
<td>Meaning-based LREs</td>
<td>209 (67%)</td>
<td>59 (38%)</td>
</tr>
</tbody>
</table>

Note. The frequency of each grammatical category of language-related episodes is calculated as the percentage of the total number of speech turns.
of the CMC group on the screen every lesson. However, it might have been difficult to examine L2 learning in a relatively short term (less than 300 minutes over six weeks), and a longer period may be needed for investigation in order to give learners ample exposure to phrasal verbs, which are formidably difficult for EFL learners because of L1 influence, leading to their avoidance or underuse (Laufer & Eliasson, 1993) and language transfer (Hulstijn & Marchena, 1989; Liao & Fukuya, 2004).

In fact, there was evidence that phrasal verbs consisting of an adverb followed by a verb were rarely negotiated or paid attention to by learners across the groups, regardless of the input providing a visual explanation before doing the task of the role of the adverb (e.g. out, in) attached to the verb portion of a phrasal verb. It may be argued that more explicit explanation and automatic memorization of phrasal verbs are necessary for EFL learners, who lack abundant input and exposure to contexts in which phrasal verbs are often used on a daily basis. A future investigation of the acquisition of phrasal verbs by Japanese learners would be helpful, with more focus on L1 transfer (Hulstijn & Marchena, 1989; Liao & Fukuya, 2004) and also on avoidance or underuse (Laufer & Eliasson, 1993).

Attention to form

With regard to the third research question as for the impact on learners’ attention to particular types of form and meaning, the findings showed that the FTF group negotiated grammar-based LREs much more often than the CMC group, whereas meaning-based LREs were more often negotiated in the CMC group. It can be suggested that the CMC group, who relied solely on verbal communication via headsets, had to produce negotiation for meaning in order to confirm their communication more often than the FTF group. On the other hand, it seems that the CMC group did not necessarily pay attention to phonological features, and their focus may have been less strong while they were wearing the headsets. In fact, there were differences between both groups in the amount of attention to form (e.g., phonological LREs). In addition, the evidence from the transcripts showed that most of the negotiation of phonological LREs in the CMC group concerned the adverb portion of phrasal verbs, such as ‘out’ and ‘on’. The explanation for this may be that the CMC group could hear more clearly owing to the elimination of surrounding noise by the headsets and could focus on more detailed segments of the words than the FTF group. However, it could be further debated whether or not this technology, which restricts the use of the five physical senses for communication, could be beneficial for developing verbal communication, just like the benefits of using telephone calls in L2 practice. More robust research will be needed on the influences of this technology.

In addition, among the types of form, both groups seem to have paid attention to lexical problems more often than to other forms (CMC: 12.5%, FTF: 26.7%), though the CMC group did not significantly paid attention to lexical problems exclusively. The result is likely to be related to the individual
differences in each group, besides it is understandable that students with a low level of proficiency tended to pay attention to lexical meaning first in communicative dialogues. The findings also confirmed the similarity between both groups in terms of the low frequency of morphological LREs (CMC: 0.3%, FTF: 0.6%). This can be explained by the lack of attention to morphology in both groups may have resulted from the well-known morpheme difficulty shown in acquisition order (Larsen-Freeman, 1976).

Overall, the findings did not show any reduction of effectiveness when using CMC for collaborative tasks, which seems to be consistent with the results of previous studies (Lee, 2010; Ziegler, 2013), although these findings differ from some studies on exclusively text-based CMC which showed some benefits because of the visual display of text (Blake, 2000; 2007; Chun & Yong, 2006; Fischer, 2012; Lai, Fei, & Roots, 2008; Lee, 2010; Pelletieri, 2000, Sauro, 2013; Shekary & Tahririan, 2006). Together these results provide important insights into pedagogical implications. As for the development of phrasal verbs, it is suggested that more salient and targeted input and use of phrasal verbs will be necessary for students at an elementary level of proficiency. Moreover, communication using headsets can provide clear sounds; however, teachers need to bear in mind that communication with limited resources requires more time for negotiation for meaning and there needs to be room for considering when and why to use CALL for educational task. It would be better to use technology to experience things that students would never experience in a traditional classroom. In this regard, further research of some substantial effects of CALL will be called for.

Finally, although there were inevitable limitations on this classroom research in that there were technical operational constraints over which the researchers did not have complete control, future studies should consider the impact on other tasks and the assistance of peers for attention to form during tasks for L2 development.

Conclusions

The study investigated the effects of means of communication (CMC versus FTF) on learners’ phrasal verbs and their negotiation through a dictogloss task. The findings revealed that there was no significant difference between CMC and FTF communication in the development of phrasal verbs. The results are likely to be related to previous studies showing the difficulty of acquisition of phrasal verbs, although further research which is more focused on the acquisition of phrasal verbs by Japanese students is called for. Additionally, learner-learner interactions through dictogloss based on LREs revealed that the FTF group appeared to focus on negotiation for form, unlike the CMC group, whose members needed more negotiation for meaning to verbally confirm what they heard from each other and avoid conversation breakdown, since their only resource was listening via headsets. In addition, the findings revealed that the CMC group paid less attention to phonological form than the FTF group, however
both groups tended to pay attention to lexical form to get clues in the reconstruction of a sentence. The question about the association with L2 acquisition and the amount of LREs remains unanswered, and further studies must be undertaken in order to clarify this.

Note (1) Synchronous messaging facility can support several different modes (e.g., a text chat window using smileys, which belong to the iconic mode (Lamy, M.N., 2012)
(2) Due to limitations of space, the investigation of self-repair or modifications during interactions has been omitted from this paper.
(3) The participants in each class had been already been classified according to their scores (equivalent to below 280 on the TOEIC) on an English language proficiency test administered by the university.
(4) TOEIC Bridge measures English proficiency for beginning to lower-intermediate level learners.  http://www.ets.org/toeic_bridge/
(5) Wordle is an online program for generating “word clouds” from the text that you provide. The clouds give greater prominence to words that appear more frequently in the source text.  http://www.wordle.net
(6) ‘Grammar Snacks’ offers grammar practice by focusing on an area of basic grammar (e.g., present continuous, past simple-irregular verbs, present and past, countable and uncountable nouns) in snack-size bites, and its videos show the grammar being used in a conversational style.  http://learnenglish.teens.britishcouncil.org/grammar-vocabulary/grammar-videos
(7) Although tasks are usually used for L2 outcome, L1 use has its place for the good reason that “[a]mong lower-achieving students, there is a greater need to use the L1” (Swain & Lapkin, 2000, p. 267) to speak more fluently in using metalinguistic terminology (Scott & de la Fuente, 2008).

References
Fischer, R. (2012). Diversity in learner usage patterns. In G. Stockwell (Ed.), Computer-assisted language learning:
Effects of computer-mediated communication on learners’ phrasal verbs and their negotiation (SUZUKI) 177


ABSTRACT

Effects of computer-mediated communication on learners’ phrasal verbs and their negotiation

Natsuyo SUZUKI

This empirical study investigates effects of different means of communication (computer-mediated versus face-to-face) on learner-learner negotiations during a collaborative task (dictogloss) in the process of learning phrasal verbs. With the growth of interest in the impact of technology-mediated language learning, whether or not educational technology has any distinct impact on the way learners negotiate during a task for second language (L2) development is one of the concerns demanding investigation. Japanese university students (n=28), who were generally accustomed to teacher-centered instruction, participated in the study. It utilized a dictogloss in which learners had the opportunity to negotiate any language problems they came across in the process of collaboratively reconstructing a sentence followed by individual dictation. Meanwhile, phrasal verbs, consisting mainly of a small number of common verbs or adverbs in combination with prepositions (e.g. get, go, come, put / out, off, up), were tested. The research addresses the following questions: Does computer-mediated communication (CMC) have any impact on 1) the written development of phrasal verbs, 2) learners’ command of the two types of phrasal verbs (new vs. old) at the time of the post-test, and 3) learners’ attention to form and meaning? The data were collected based on written pre- and post-test scores, which were analyzed using the repeated measure of analysis of variance (ANOVA), and transcripts of audio records of learners’ oral negotiations. The latter were analyzed for language-related episodes (LREs), which were coded as either meaning- or grammar-based LREs. The chi-square analysis was used to investigate differences between learners’ attention to form for each categorized feature of language. The results showed no significant differences between CMC and face-to-face (FTF) communication in the development of phrasal verbs, which were in line with previous studies. However, the CMC group significantly spent more time for negotiation for meaning than the FTF group and their attention to the types of forms during the task were not identical.