

Scaffolding Moves by Learners in Online Interactions

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Abstract

Learners can collaborate with each other to achieve a lesson objective. In the collaboration, they can provide each other with guidance in order to identify mistakes and improve their achievements. With the rise of online instructions, this small-scale exploratory study aimed to see how proficient learners guided their less proficient classmates in correcting the grammatical accuracy of sentences. Twenty three learners who were taking a blended-learning grammar class were assigned to post brief essays on Edmodo and the more able learners were instructed to help their weaker classmates find and correct the errors in their essays. A total of 18 essays and 15 lines of comments were generated in their online interactions. A coding was done to identify the moves of the learners as they gave and received peer corrections. The results indicated that the more able learners made seven types of moves for guiding their classmates, with only three sequences incorporating a relatively complete scaffolding moves. The weak learners, however, hardly responded to their more proficient classmates. Reluctance to prolong the discussion in online setting and the difficulties in dealing with detailed grammatical items in such setting may have been responsible for this low rate of responses.

Keywords: scaffolding, grammar, moves, collaboration, online instructions

Introduction

A host of factors determine the success in learning a foreign language in a formal setting. The teacher, the material, the amount of task and feedback given, the physical environment, and the peers are primary factors that contribute to the success of one's learning. A well-managed class offers some assistance for learners. If the teacher's explanation goes too fast for some learners or a particular chapter of the lesson is too difficult to grasp, learners can turn to their friends and classmates for help. In a class which puts more emphasis on collaboration than on individual effort and achievement, learners can be encouraged to help one another have a better grasp of the lesson. The teacher can call on the more able learners to help their less able classmates with the lesson. More specifically, the teacher can train the former to guide the latter in a way that eventually enables these weak learners to do the tasks more independently with a greater accuracy.

Meanwhile, the rapid advances in computer technology and the increasing popularity of Task-Based Language Teaching have ushered in a new area where computer-mediated technology merges with language teaching. According to Kern, Ware and Warschauer (2004, p. 243), "computer-mediated communication (CMC) provides an ideal medium for students to benefit from interaction, since the written nature of the discussion allows greater opportunity to attend to and reflect on the form and content of the communication."

The kind of assistance that more proficient learners can offer to their weaker classmates should not be too direct and too much so as to leave nothing significant for the less able learners to do, but it also should not be too meager so as to leave them in confusion. In the educational parlance, this is commonly termed as "scaffolding". Originally, the term scaffolding was inspired by the zone of proximal development, a concept of learning development proposed by

Vygotsky (cited in Daniel, 2016). Later, it was elaborated by Wood, Bruner and Ross (1976) who stated that it enables a novice to accomplish a task that goes beyond his or her current ability level. More specifically, they stated that scaffolding involves controlling task elements that are initially beyond the learner's capability, thus allowing him or her to focus on those elements that are within their range of abilities. In time, the conceptualization of scaffolding also develops. As defined by Lata and Luhach (2016, p. 192), scaffolding consists of an instructional technique where a teacher or more able student "provides individualized support by incrementally improving a learner's ability to build on prior knowledge". Fisher and Frey (2010) equates scaffolding with guided instruction, and stated that it covers four steps: questioning to check understanding, prompting to activate cognitive processing, cueing to get the learners' attention on specific information, errors, or incomplete understanding, and explaining or modeling.

This study aimed to identify the scaffolding moves that highly proficient learners made when assisting their less able classmates in online sessions. More specifically, the objective of this study was to identify the scaffolding moves in online discussion about grammar mistakes between more able learners and less proficient learners. Studies that investigated scaffolding in a conventional setting have been numerous, the recent ones being a study on scaffolding for listening comprehension (Talebinejad and Akhgar, 2015), a study by Gibbons (2014) on general language skills, another by Marzec-Stawiarska (2015) on collaborative writing, and another one on scaffolding for reading (Nelson and McGee, 2013). In addition to this, Sticher (2009) carried out an investigation into scaffolding mostly done by EFL teachers in conventional classes. In contrast, studies on scaffolding that occurs during online sessions are still scarce and need to be carried out more intensively so as to reveal a more or less definite pattern. An even more distinct feature of my study is the focus on scaffolding done by learners for their own classmates. This was proposed within the theoretical framework of Zone of Proximal Development (ZPD) in Vygotsky's constructivist learning, which posits that there is a potential learners can harness when they realize the gap between their own effort and their effort aided by more skillful peers.

The present study, delving into the moves in exchanges between learners, offers at least two advantages. First, it encourages collaboration among learners in an online mode. Patterns of collaboration can inform teachers of how to overcome barriers and maximize potentials for collaborative learning. Second, it encourages the learners to adopt an altruistic stance by offering their assistance to those in need for help. Second, it informs the teacher of the persistent errors among the students and how they deal with the errors. A deep probing into their discussion about certain challenging parts of the lesson should tell the teachers what areas of the course needs strengthening, what parts are likely to be misinterpreted, and what areas still cause confusion.

Review of Literature

Previous studies include a study by Hennessy et al. (2016), who identified a host of communicative acts by learners of different abilities in a classroom dialogue. They found that a portion of the communicative acts can be perceived as scaffolding, which according to Koole and Elbers (2014) can be done by (1) constructing structures of the task in such a way so as to allow the learner to perform maximally, and (2) responding to the learners' current level of mastery/skills. In Hennessy's study, a learner's scaffolding for his or her peers is responded with a wide variety of acts, such as speculating, building on other classmates' contributions, and the like. My study intended to see whether such scaffolding was displayed by more able learners when assisting their less able classmates.

Safa and Rozati (2017) carried out an experimental study to find out the interactions between outstanding learners and their less knowledgeable classmates and interactions between

learners of equal abilities in a listening comprehension class. They found that that these outstanding learners used implicit scaffolding to effectively assist their less able peers. The learners with equal abilities, meanwhile, performed more explicit scaffolding among themselves, which were a little less effective than the former.

One of the most recent studies on scaffolding was conducted by Gagne and Parks (2013), who studied scaffolding among students of Grade 6. They found that two most frequent scaffolding strategies were request for assistance and other corrections. Yet, their results seemed perplexing in the sense that the two acts seemed to be initiated by the students in need for help rather than the students who were intent on scaffolding their friends' works. My study focused specifically on the scaffolding moves by the more proficient learners as they were guiding their less able classmates to correct their sentences.

A move is an element of discourse which is defined by Krussel, Springer and Edwards (2004) as an intentional verbal or non-verbal action to take part or affect the discourse in an instructional setting. A move has a purpose, occurs in a setting, has a particular form (questions, hints, directives), and results in consequences. Drawing on this definition, my study defines scaffolding move as a verbal action intended to show the mistakes in a learner's written work and guide him or her through the corrections so that the learner knows how to improve the accuracy of his or her sentences. The moves, as Cross and Oppenheim (2006) and Mirzaei, Hashemian, and Safari (2016) showed in their research, can come in a sequence of steps. As shown in the result section below, the learners produced sequences of moves in their scaffolding efforts.

Methodology

Research Design

The study was a small-scale exploratory study that looked into the depth of a limited number of written exchanges during online sessions.

Participants

Twenty three students who were taking a Grammar class at Universitas Ma Chung were taken as respondents. The class was held once a week for 100 minutes in the course of one semester.

Materials

There were a total of 18 short essays and a total of 15 lines of comments from those who read each of the short essays.

Instruments

Since the study was intended to see online interactions between the students, Edmodo was used to gather the data. A grammar class was set up on this platform and the task posted on the class got the students to post their interactions.

Procedure

Some of the lessons were conducted conventionally in the classroom, but occasionally the students engaged in online sessions where they read each other's brief essays and worked together to identify and correct some of the mistakes. The online written interactions were performed at Edmodo platform and recorded for further analysis. One of the assignments that

they had to do at Edmodo was writing a brief essay, and then looking at each other's essay and suggest corrections for the mistakes, if any.

Data Analysis

In the analysis stage, each of the lines was coded to identify the sequences of moves. The learners who commented and suggested corrections were understandably those who were more proficient, and the ones receiving corrections were the less proficient learners.

The initial coding resulted in 7 categories of moves. Then, the researcher and a colleague classified each sequence of moves into the categories and checked their intercoder agreement. The intercoder reliability was found to be 0.819 and was deemed relatively high.

Results

The analysis of their online exchanges revealed a certain patterns of scaffolding that most noticeably took place when more able students were guiding their less able classmates to correct some grammatical mistakes. The more able learners' corrective comments on the mistakes can be broken down into moves, which are defined as portions or parts in a discourse that are produced to achieve a certain communicative purpose (Ding, 2007), or "a discursal rhetorical unit that performs a coherent communicative function in a written or spoken discourse" (Swales, 2004, p. 29). The most typical moves that were identified are as follows, with the moves containing scaffolding underlined:

(1) Complimenting/greeting – announcing intention to correct – writing the correct forms – closing.

Example: Hello Tamara. I want to revise a little about your essay. I think you do not have to use V2 for this sentence, "If we got..." I think it should "If we get...". Then, sleep deprivation it self, I think it self not write separated, but it will write "itself". Thank you.

(2) Greeting – giving correction directly.

Example: Hi Bernice. I think you can change the word "whatever climates" into "any climates".

(3) Greeting – appreciating the efforts – identifying incorrect parts – giving correction and explanation – closing.

Example: Hello, Elgrace... I think there are 2 minor errors on your essay...

The first is : every human has (if you use had, it means that it's in the past) which actually it should be simple present...

The second is on your last sentence : ... bad they are in other people's perception.

That's all, and I hope my comments find you well. Thank you.

(4) Greeting – showing the incorrect parts – suggesting the correct ones.

Example: Hello Clara. I want to revise your sentence:

Some application also provide...

It should be "some applications also....".

(5) Greeting – appreciating the efforts - signaling need for improvement – showing parts to be corrected – explaining the correction – closing

Example: hey Sindi it's an interesting topic. Yet there is a room for improvements. For instance, you should use "which" instead of "who" in referring to a concept or ideology such as *Bhinneka Tunggal Ika* because it is not a human.

(6) Greeting – announcing intention to correct – showing the faulty sentences with corrections directly given in brackets – closing

Example: Dear Christina, I'd like to give some comments on your essay.

1. Hand phone (has) some good and bad impact(s) especially for student(s).
2. The good impacts are: first, they can learn...
3. ...communicate with many people and they will have good socialization.
4. The bad impacts are:
5. First, they will be (lazier)
6. ... i think it's the , not they (on your last sentence)

I think that's all from me and I hope my comments will find you well. Thank you Chris

(7) Greeting – appreciating the work – signaling suggestions—pointing out the wrong parts, giving the corrections, and explaining the corrections.

Example: Hi Bernice. You did a great job and it's a good essay. But I have some suggestions to make it better. Besides, tea is actually originated from several countries. Those are China, Japan, India, and Sri Lanka. (I think it will be better if you use comma, not to end the sentence until "countries" word because the sentence after it is dependent sentence. There are many kinds of tea. Three of them are such as black tea, oolong tea, green tea, Black tea is a fermentation of the tea leaves. Black also has a strong taste than green or white tea. (I think it will be better : There are many kinds of tea such as black tea, oolong tea, AND green tea.(FULL STOP) Black tea is a fermentation of the tea leaves AND also has a strong taste than green or white tea.)

The frequencies of each of the moves, presented in descending order, are summed up in the following table. The underlined phrases indicate the moves that constitute scaffolding:

Table. Frequencies of the Scaffolding Moves

No	Sequence of moves	Frequency
1.	Complimenting/greeting - announcing intention to correct – writing the correct forms – closing	3
2.	Greeting – giving correction directly	3
3.	Greeting – appreciating the efforts – <u>identifying incorrect parts – giving correction and explanation</u> – closing	3
4.	Greeting – showing the incorrect parts – suggesting the correct ones	2
5.	Greeting – appreciating the efforts - signaling need for improvement – <u>showing parts to be corrected – explaining the correction</u> – closing	2
6.	Greeting – announcing intention to correct – showing the faulty sentences with corrections directly given in brackets – closing	1
7.	Greeting – appreciating the work – signaling suggestions— <u>pointing out the wrong parts, giving the corrections, and explaining the corrections</u>	1

Discussion

In the above patterns, only pattern 3, 5, and 7 comprise a relatively complete act of scaffolding because not only do they show the mistakes and correct them but also explain the correction. This accords with elements of guided instruction suggested by Fisher and Frey above (2010). The other patterns (1, 2, 4 and 6) do prompting and cueing but do not go beyond these two acts to explaining. Pattern 1 and 2, for example, give the correction and end abruptly with that, leaving the less able learners wondering why the words or phrases they wrote were incorrect. From the less able learners' vantage point, pattern 3, 5 and 7 must have been more helpful than the other patterns because they explained to them why some forms were incorrect and how to correct them.

Ziegler (2016) argued that interactions are beneficial to language learning, and such activities prove useful not only during face-to-face activities (FTF) but also during computer-mediated sessions. Interactions are believed to prompt negotiation of meaning and other linguistic forms between learners; more importantly, it encourages noticing, which as Schmidt (2001) stated, involves the learners' attending to linguistic forms and realizing the gap between their own language and the target language. Within the context of my study, the weak learners would notice the forms of the correct grammatical patterns and compare their own deviant constructions with the well-formed patterns. The weak learners might have attended to the correct forms supplied by their proficient classmates although the meagerness of their responses made it unclear as to what extent they followed-up the corrections. Their mere responses of saying gratitude certainly could not tell anything about their mental processing.

Kim and McDonough (2008) carried out a study on collaboration patterns among learners of different proficiency levels. They generated four types of interactions, namely (1) collaborative, in which both learners jointly work out a solution to a language problem, (2) dominant/dominant, in which the learners defend their own opinion and rarely come to a consensus, (3) dominant/passive, in which one learner clearly takes a more demanding stance while the other learner tends to be more quiet and subservient, and (4) expert/novice, in which one learner takes the role of an expert who urges the other to offer suggestions and ideas. Seen in this light, the respondents in my study mostly demonstrated the third type throughout their interactions. The more proficient learners provided scaffolding and the less proficient ones simply agreed with the corrections. Their exchanges were mostly very short, consisting of only the more proficient students' scaffolding and ended right away with the less proficient saying thanks. Despite this meager amount of interactions, it was clear that their interactions could be categorized under the system proposed by Kim and McDonough above.

Thurmond and Warmbach (2004) argues that an effective online learning calls for (a) participation, (b) response, (c) provision of affective feedback, and (d) short, focused messaging. While the learners, especially the more able ones, clearly provided affective feedback and focused messaging, it is interesting to note that out of 15 interaction units, only 4 (30.76%) contained responses from the less able students whose works were corrected. In addition, all of the responses were merely expressions of thanking the correctors. There was no further discussion or requests for clarification or even arguments. These less able students may have read the corrections given by their more able classmates and kept them in mind or corrected their work straight away. Further discussions between the corrected and the correctors, if any, may have taken place in offline modes, or may have not occurred at all.

At least one study that turned out a similar result to my study is done by Lochtman (2002). He examined three types of corrective feedback given in student interactions during a grammar-based course: prompts, recast, and explicit feedback. The study found that explicit feedback was very rarely followed by responses from learners who were corrected.

With the meager amount of weak learners' responses, it was not clear whether they followed up their peers' scaffolding moves with uptakes, which is defined as learner's improved language production shortly after corrections on their initially flawed utterances or sentences (Fu and Nassaji, 2016). The learners might have made some uptakes in their mental processing, or might have remained ignorant about the corrected points due to unresolved confusion or incomplete understanding. The online sessions seemed to be inadequate to allow a complete correction to unfold in its entirety.

The absence of such follow-up acts in the online sessions underscore the fact that the online sessions could not promote the entire interactions between learners of different abilities that started with initial corrections and ended with a better understanding of the less able learners. There might have been some causes, such as slow Internet connection, or the learners' reluctance to maintain the interaction in online fashion, which rendered online sessions less effective. A study by Banna et al (2015) also hinted at the same factors. They found from their qualitative study that technical difficulties, scheduling conflicts, and reluctance to take part in discussions were the reasons behind low participation in online sessions. Ithindi (2013) also found a small percentage of learners' participation (17.9%) among the respondents who were assigned to an online discussion forum. It is interesting to note the term "lurking" in the report of that study that refers to learners who merely logged in to the site and silently gleaned a few ideas in the discussion but did not participate at all. Quite possibly the learners in my study also behaved similarly. Upon receiving the correction from their more proficient classmates, they attended to the feedback, corrected their work or made a mental note of them, and quietly read other postings to glean bits and pieces of correct grammar. If this was the case, they never bothered to write longer responses to their classmates' scaffolding moves. Should confusion arise on their parts, they would have cleared it by asking their classmates directly when they met them in person during the class.

To substantiate the argument that the less able learners were actually intent on responding to the more able learners' corrections, a small part of their face-to-face verbal discussion on reduced passive voice was recorded. The following shows their utterances, which have been translated from their native language to English:

More proficient learner: "... the book which was written by me is read by the lecturer. This is a complete pattern because there is 'is read'. With reduced, in the book which was written, delete the "which was".

Less able learner: "So, this should be reversed?"

Apart from some inaccuracies in the explanation, the dialogue above shows that in a face-to-face setting, less able learners did respond naturally to the scaffolding moves given by their more proficient classmates. Thus, in a natural setting like that, each of the participants can modify their scaffolding and their understanding by building on the ongoing discourse they are creating. It is this element of successively chained moves that were difficult to create and sustain during online exchanges.

Storch (cited in Marzec-Stawiarska, 2015) identified three problems that hampered the effectiveness of collaborative writing in a face-to-face session. First, students were worried that their frank corrections on their partners' errors would hurt their feelings. Second, some of the less proficient learners felt intimidated by the fact that they knew less than their partners. Thirdly, the overall collaborative writing distracted their focus on the writing assignment. These problems seem typical of the face-to-face interaction but did not seem to materialize during the online sessions in my study. The corrective comments from the more able learners felt more straightforward and uninhibited by the fear of offending the less able classmates. If something

felt lacking, it was the responses from the weak learners who hardly wrote anything except for a small note of thanking the correctors. Thus, this is the area where offline and online discussion is different from one another. In the former, learners seem to be more inhibited by the affective factor and the need to save faces, while in the latter they tend to be more straightforward. The asynchronous nature of the online discussion and the exemption of facing their peers in person may give rise to these spontaneous, direct, and frequent corrections. As a result, scaffolding moves are more frequent during the online sessions.

Abramenka (2015) and Muilenburg and Berge (2005) came to a conclusion that one of the influential barriers to online learning is collaboration and social interaction among learners. Not being able to see interlocutors when discussing a correction on a piece of written work can be demotivating to learners. That explains why the less able learners in my study hardly continued the online discussion after reading the feedback from their more proficient learners.

In the context of my small study, another hindering factor may have come from the nature of the course itself. Discussion about grammatical items which require the learners to use a lot of deixis expressions (Huang, 2014) may also be more difficult when done online than when it is done in a face-to-face fashion. For example, in one of the exchanges presented above a more proficient learner wrote: “hand phone (has) some good and bad impact(s) especially for student(s)”. When reading this, the less able learner being addressed would have to go through a little trouble locating the original words he or she had written and the corrected versions given by the classmate, something which would have been more easily accomplished if they had been talking face-to-face facing the same written essay. Clearly, conventional face-to-face sessions must be done to bring the interactions to completion or to clear up confusion and misunderstanding. Thus, it is mistaken to perceive online interactions as a panacea to the typical issues in a face-to-face interaction. At least, this study has indicated that online interactions could be hampered by a number of limiting factors. Smoothing over the details in a meticulously crafted written work, overcoming misunderstanding, requesting for clarification, and the immediacy of responses may be impaired to a large extent during online interactions. Thus, what is needed is the balance between offline and online sessions which characterize an effective blended learning, a point that was in line with Dow (2008) after her intensive study on the attitude of students toward online courses. Activities that can only be done halfway through during the online sessions can be continued in the offline sessions, and vice versa.

Farooq and Matteson’s study (2016) revealed two factors that have an important bearing on online courses. First, learners revel in being able to exchange information in face-to-face sessions. So, even if they have to take the course in online fashion, this sense of communicating to real human is what they expected from a synchronous communication facilitated by computer-mediated platform, such as Google Hangout. Secondly, technological issues like slow Internet connection or lags in online delivery greatly influenced the motivation for online learning. These two factors could probably explain the behavior of less competent learners in my study. The lack of genuine human interaction that they experienced during their Edmodo sessions may have made them limit their online interaction. As soon as they got the corrections from their more able classmates, they stopped the interaction and would rather immediately start working offline on the improvement of their sentences. In addition to that, some of them may have experienced technological issues as mentioned above and got discouraged to engage in lengthy online interactions. Indeed, as Marcial et al (2015) reported from their study, Internet cost, access, and other technical problems may hamper the effectiveness of online learning.

Interactions between teachers and learners and between learners, as Philip and Tognini (2009) noted, are of different types. The first type is teacher to learner interaction. This is

commonly characterized by IRF (Initiate-Response-Feedback) sequence. Typically after the feedback is given, the learner does not produce any follow-up verbal responses. The second is corrective feedback. In the learner to learner interactions, interaction can be intended as practice, as exchange of information where typically the focus is on the message, and as a collaborative dialogue which attends to forms. Although this latter type gives rise to noticing of the correct forms, no further discussion was presented on the weak learners' verbal responses. It is wise at this point to conclude that different types of tasks may shape the type of interaction differently. Tasks focused on the messages may promote patterns of verbal responses which differ from those that emphasize on accuracy of forms, just like the one in the present study.

Conclusion

In closing, a conclusion can be drawn that summarizes the study reported above. It highlights the scaffolding moves from the more able learners when they help their less able classmates to find and correct mistakes in their essays. Out of seven sequences of moves, only three embed the scaffolding acts because they conform with the criteria of a proper scaffolding. The moves from the more proficient learners, however, are seldom responded by the less able learners. The follow-up by the less able learners quite probably take place in offline sessions. This tendency underscores the fact that face-to-face sessions are indispensable in a blended-learning instruction. The online and the conventional sessions complement each other in enabling the teacher to achieve the instructional objectives.

In the light of the finding described above, a few points that pertain to online teaching can be proposed here. First, teachers should realize that although online teaching can open up to many learning venues that enrich the learning experience, the effectiveness of online interactions between students is dependent upon the nature of the tasks and the quality of cyberspace connection. Learners can hardly thrive in tasks that require attention to details and a lot of pointing to discrete elements in a string of sentences such as a grammar correction. Even if such online interaction is deemed important, efforts should be made to complement it with face-to-face sessions where confusion and misunderstandings can be cleared.

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