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Language learning through interaction: Online and in the classroom

Cover Page Footnote

I dedicate this work to the professors in SLA that have dedicated their careers to advancing second language teaching.

Introduction

The use of technology has become an increasingly popular for second language teaching and learning (Young). Furthermore, when global disasters, pandemics, or even local emergencies such as natural disasters occur, it is helpful to be able to temporarily pivot to an online learning environment. From films and audiotapes in the 1980s to smartphones and tablets, technology for second language acquisition (SLA) is ever-changing and improving. (Ahmed; Liu et al) Technology offers convenient access to language-learning materials both inside and outside the classroom. Devices that access the internet allow learners the possibility of viewing all types of video and audio materials to help facilitate learning by providing input necessary for language learning (VanPatten and Cadierno).

Furthermore, online language learning has the potential to offer learners a communicative and creative platform that can increase engagement with the lessons in and out of the classroom (Sung et al.; Warschauer and Meskill).

However, in order for acquisition to occur, students need the opportunity for interaction, not just input (Lee and VanPatten; Leeson; Loewen and Erlam; Mackey and Philp; Stafford, Bowden). Therefore, this study sought to measure the instances of interaction as defined by negotiation of meaning and exchange of information, in both the classroom and online settings.

Background

Computer Assisted Language Learning

Computer-assisted language learning (CALL) encompasses a wide range of computerized technology, and research has presented mixed support. Loewen and Erlam have pointed out that some benefits of CALL include increased interactions, student production and, in general, more student-based lessons. However, the quality of the language appears to be the same regardless of the context; in-person or in a virtual setting. Loewen and Erlam claim that CALL programs could be as effective as classroom learning if they contain the necessary elements for acquisition. In other words, the effectiveness of the lesson is dependent on the quality of instruction, based on SLA principles, rather than the setting.

Studies have measured the types of instruction that are most effective and found that meaning-based activities with interaction that ask learners to comprehend and produce meaningful language far outperform mechanical drills devoid of meaning that are traditionally used in the classroom and in online instruction. (Benati; Benati and Lee; Cadierno; Cheng; Farley; Leeson and DeMil; Morgan-Short and Bowden; VanPatten and Cadierno; VanPatten and Wong) This data are reflected in the evolution of CALL platforms as many newer programs focus more on interacting and using language in real time rather than focusing on memorization of vocabulary and simple mechanical grammar drills, though many such still exist. (Fernández; Wong and VanPatten)

Previous Research

The research relevant to this study were investigations measuring the amount, effect, and platform of interaction with regard to language related episodes (LREs). That is, how many and how LREs are interpreted and what, if any, effect the LREs had on acquisition, and, measuring LREs in the classroom and using computer-based activities.

Mackey and Philp investigated English question formation for 35 adult learners of English as a second language. The learners were in beginning and lower intermediate intensive English language classes with a mix of first language backgrounds. The study compared language groups that received feedback during interaction. Mackey and Philp claim that in order for recasts to be useful for development of a second language, the learners must internalize this feedback. Their research question was, “Do learners who participate in task-based interaction with intensive recasts show an increase in developmentally more advanced structures?” (Mackey and Philp 343) Learners participated in a Spot the Difference task in which each learner has a drawing that differs slightly from that of the conversation partner. The learners were paired with native speakers and were asked to discover how their respective pictures differed by asking each other questions and the interactions were recorded and measured. The results supported the hypothesis that learners were able to show short term development by this conversational interaction including feedback. The relevance to the present study is that the comparison of the online and in person classes will be measured for the amount of interaction.

Leeser investigated grouping learners by proficiency levels in order to elicit language related episodes. Leeser worked with 42 adult learners in the fourth semester of Spanish as a second language. The learners were rated by the instructor on their relative proficiency in Spanish (high/low) as compared to the rest of the class. The aim of the experiment was to see if, in a content-based course, learners were producing LREs, and if so, what type (lexical or grammatical), if the episodes were corrected and how proficiency level affected the number, type and outcome of the LREs. The learners were given a text reconstruction task. Groups were recorded in order to identify and classify number and type (lexical or grammatical) of LREs. The results offer evidence that learners did focus on form, with about half focusing on lexical meaning, and half focusing on grammatical form. In these communication pairs, and 76.81% of the LREs concluded with a correct outcome. Furthermore, the high proficiency groups produced more LREs than the lower, which demonstrates that interaction is evidence of acquisition. These LREs are a consistent marker for acquisition, and must be present in a classroom, whether in person, or online.

Sanz and Morgan-Short investigated the effects of computer-delivered explicit information and feedback while students performed a meaningful task and were measured on interpretation and production. Participants whose first and only language was English were enrolled in beginning or intermediate university Spanish courses. Spanish word order, in which the direct object pronoun comes first (Object-Verb-Subject) is often misinterpreted by English speaking learners as Subject-Verb-Object because this

is the word order most typical in English. Learners were taught about the form using explicit rule presentation, information about how these sentences differ from English and were asked to complete input-based activities. For assessment, learners were asked to interpret these OVS sentences and respond by choosing the correct picture. The production task asked learners to look at two pictures and complete the sentence with the direct object pronoun. A second production task asked learners to retell a video in order to elicit spontaneous production of the target form. Results demonstrated that groups that received either explicit information about language or feedback (or both) improved significantly, as well as the group that only practiced and received no feedback or explicit information in their acquisition of Spanish word order. In other words, when learners were asked to practice comprehending the target form, they were able to significantly improve. Therefore, the presence of activities that solicit comprehension from language learners, in person and online, will be an indicator of an effective class. (See also Mackey)

Stafford, Bowden, Sanz studied the effect of online language practice with and without explicit feedback on a web-based learning platform. The hypothesis was that though input is essential for language acquisition, explicit feedback or reaction by right or wrong marked responses may not be; or, this feedback may help learners make more complex form-meaning connections. The participants were 65 university students who were Spanish-English bilinguals, including heritage speakers of Spanish, as well as early and late bilinguals who were highly proficient in English. The participants were given materials to help learn agent/patient assignment, word order, and case morphology in Latin. Participants were given pre-practice grammar explanations. The web-based learning platform administered the treatment and tests. 2 treatment groups included pre-practice grammar. The other two did not but received explicit feedback. These students worked with Latin through an interactive computer program designed to promote acquisition by drawing learners' attention to processing strategies to help them better interpret language input. Results suggest that the practice with the input with responses of correct/incorrect was more effective than practice with explicit feedback (why the answer was correct or incorrect) and pre-practice grammar explanation provided no clear benefit. This supports the approach that interaction with positive and negative feedback is beneficial to acquisition, and explicit information about grammar appears to have no significant effect on acquisition. Again, regardless of the classroom or online environment, the factor that is promoting acquisition is instances of interaction. (See also Lado et al)

As outlined above, interaction during a lesson, whether in person or online, has been demonstrated to be effective in the acquisition of a second language. Therefore, the current study sought to review online courses to discover if they contain the necessary elements for interaction. This study also compared in-person classrooms with an online classes to measure the amount of interaction based on number and type of LREs. The results will add to a growing body of evidence that supports effective teaching through interaction regardless of whether the course is in person or online.

Interaction Approach

Gass and Mackey define interaction as learners' exposure to language input, learner production and feedback on that production. In these interactions, learners attempt to comprehend a message and respond with a message for the language partner.

Learners also have the opportunity to interact by asking questions about the input in order to seek clarification. Furthermore, learners are given responses to this clarification seeking in the form of feedback, both explicit and implied. This interaction leads to further understanding and promotes acquisition (Gass; Leiser). Interaction is of particular interest to the current study because the classes that were recorded and analyzed were communication-based and focused on instructor-learner and learner-learner interaction, and therefore is the main measure of comparison in measuring the effectiveness of a classroom.

This interaction, as measured by language related episodes (LREs) are events that occur during interaction when the learner or the teacher, or advanced speaker, refer to their language use. "Instances in which learners may (a) question the meaning of a linguistic term; (b) question the correctness of the spelling/pronunciation of a word; (c) question the correctness of a grammatical form; or (d) implicitly or explicitly correct their own or another's usage of a word, form, or structure" (Leiser 56). The presence of these LREs is evidence of the elements necessary for acquisition to occur.

The four types of LREs that we measured for our study were clarification requests, comprehension checks, and 2 types of feedback: recasts and prompts. Examples are provided below. A clarification request, example 1, is a type of LRE in which the learner questions the language of the instructor.

(1) Learner to instructor: Could you repeat? how many?

A comprehension check, example 2, is another type of LRE. During this interaction, the instructor or more advanced speaker seeks to confirm that the learner has understood the utterance.

(2) Instructor to learner: Do you want me to repeat?

Feedback is a type of LRE in which the more advanced speaker comments on the learners' language in order to clarify or correct. A recast, example 3, is the second type of feedback. A recast is when the advanced speaker notices an incorrect utterance and provides the learner with the target-like form.

(3) Learner: I have *fi*e cats.
Teacher: Wow! FIVE cats! That's a lot.
Learner: Yes, FIVE cats.

A prompt, example 4, is a type of feedback where the advanced speaker makes some reference to the learners' non-target-like utterance as a question. It prompts learners to notice the incorrectness and clarify.

(4) Advanced speaker to learner: Excuse me? The person does what?

These four types of LREs were the focus of measurement of the classroom and online for the present study.

Research Questions

The research questions that guided the current study were the following:

1. Do online language teaching platforms contain interaction, necessary for acquisition?

Hypothesis 1: We believe that an online language teaching platform contains interaction.

2. If an online language teaching platform does interaction, how does it compare to an in-person classroom as measured by number of LREs?

Hypothesis 2: We believe that the online classroom will have as many LREs as a communication-based classroom when considering the number of students per interaction.

Method

The study examined instructor-learner interactions during six thirty-minute language courses: three online and three in-person. The university and online classes were recorded using a digital recorder and analyzed for number and type of LREs.

The university classes used for the study were introductory Chinese and French. The classes were taught entirely in the target language using a communication approach. Each class was recorded for 30 minutes. The Chinese courses were taught by a native Chinese speaker who also spoke English. The French class was taught by a native English speaker whose second language was French. The 14 learners in the Chinese course and the nine learners in the French class spoke English and were between the ages of 18 and 22.

The English classes used in this study were taught on an interaction-based online platform using a video-chat program. The program teaches English as a second language to students in China ages four to twelve. Classes were taught by a native English-speaking teacher with no knowledge of Chinese. Each class was 30 minutes with 4 students per lesson. Each lesson is pre-designed with games and activities for teachers and learners to follow. In the lesson, the students and teachers can see and hear one another and students see the same screen as the teacher. The teacher is able to guide the learners' attention by pointing with the cursor. The lesson is based on completing games and tasks through interaction.

Results

Table 1 University beginning Chinese for English speakers

Class 1	Total	per student (n=14)
Clarification Request	9	0.6

Comprehension Check	27	1.9
Recast	64	4.6
Prompt	40	2.9
Total	140	10

Table 2 University beginning Chinese for English speakers

Class 2	Total	per student (14)
Clarification Request	18	1.3
Comprehension Check	16	1.1
Recast	44	3.1
Prompt	23	1.6
Total	101	7.1

As can be seen above, the in person Chinese class for English speakers, with 14 students, had a total of 140 LREs in the first 30-minute period, and 101 in the second 30 minute period. These LREs, as explained above, are evidence that the Chinese classroom had the elements necessary for language acquisition to occur.

Table 3 University beginner French class for English speakers

Class 3	Total	per student (9)
Clarification Request	5	0.6
Comprehension Check	8	0.9
Recast	45	5
Prompt	8	0.9
Total	66	7.4

Table 3 above, describes the amount of LREs in the 30 minute classroom lesson in French for English speakers. The French class exhibited 66 LREs, amongst the 9 participants. Again, this is evidence that the necessary elements are present for language acquisition to occur. While the number varies per class and per teacher, (say between (66-140), the importance of these episodes is that it demonstrates the the learners are recognizing a gap in comprehension, and resolving this gap with the benefit of the professor and other speakers.

Table 4 Online beginning English for Chinese speakers

Class 1	Total	Per student (4)
Clarification Request	4	1
Comprehension Check	5	1.3
Recast	17	4.3

Prompt	6	1.5
Total	32	8.1

Table 5 Online beginning English for Chinese speakers

Class 2	Total	Per student (4)
Clarification Request	5	1.3
Comprehension Check	12	3
Recast	9	2.3
Prompt	1	0.3
Total	27	6.9

Table 6 Online English Class L1 Chinese

Class 3	Total	Per student (4)
Clarification Request	0	0
Comprehension Check	22	5.5
Recast	21	5.3
Prompt	14	3.5
Total	57	14.3

In the above tables, the number of LREs for the online classes are recorded. Although ostensible lower than the in person courses, the online courses had far fewer students (n=4) and therefore the per student average is comparable to online courses when measuring LREs.

Table 7 Average of university classes: French and Chinese

LREs	Total	Per student
	102.33	8.2

Table 8 Average of online English classes

LREs	Total	Per student
	38.7	9.8

The tables above demonstrate the number of LREs per student in the in-person courses (Table 7) and the online courses (Table 8). As can be seen, per student, there is little

difference between the online courses and in person courses concerning number of LREs when accounting for number of students.

Discussion

The first research question, Do online language teaching platforms contain the elements necessary for communication (i.e. interaction based on LREs)? is supported by the results; online language teaching platforms can contain the elements necessary for communication. The second hypothesis that the online classroom will have as many LREs as a communication-based classroom when considering the number of students per interaction was supported by the results of the analysis.

Some factors that should be mentioned when discussing the design of the study. The most obvious difference between the classrooms is student age; the online learners were between the ages of four and twelve and the classroom learners were from 18 to 22 years old. This difference did not appear to greatly affect the number of LREs in any of the courses. Furthermore, because the amount of interaction was the focus, and not rate of acquisition, age does not appear to be relevant to this particular investigation. However, one reviewer correctly pointed out that the age of the student is likely a factor in the number of LREs per student. Further study is necessary to tease this apart from the data.

The second inconsistency in the study was the language taught. The online courses were English and the university classes were French and Chinese. However, because the focus of the study was amount of interaction and not rate of acquisition, this does not appear to be an important difference when considering the results.

A third issue was class size and instructor. The Chinese course was the largest, with 14 students, nine in the French class, and only four students in online English classes. In order to account for this, the LREs per student were provided in the results. Also, though the Chinese and French courses were taught by different instructors and the online English courses taught online were all taught by the same instructor, the results did not appear to reflect a difference when analyzing the amount of LREs per student. Any one or all of these factors might have influenced the outcome. Further research would be helpful to tease out these differences.

Conclusion

Four types of language-related episodes were the focus of this study; comprehension checks, clarification requests, recasts, and prompts. Results from previous studies demonstrate that for second language acquisition to occur, learners must have opportunities to comprehend and produce language, particularly with conversation partners of a higher proficiency. Learners also need the opportunity to receive and incorporate feedback, which allows the opportunity to notice and improve accuracy (Leeser; Mackey). It is apparent that learners in both the in-person classrooms and the online classrooms were given this opportunity and demonstrated comprehension and communication.

This goal of this study was to examine in person and online language classes to determine if they contained the necessary elements for language acquisition to occur, according to the interaction approach, specifically input, interaction, and output. Both the online and the in-person classes demonstrated evidence of these elements, designated as language related episodes containing comprehension and communication. Therefore, the researchers conclude that interaction is not limited to in-person lessons, and online classes can contain the interaction necessary for acquisition to occur.

Works Cited

- Ahmed, Heba Bahjet Essa. "Duolingo as a bilingual learning app: A case study." *Arab World English Journal*, vol. 7, no. 2, 2016, pp. 255–67.
- Benati, Alessandro. "The effects of PI, TI, and MOI in the acquisition of English simple past tense." *Language Teaching Research*, vol. 9., 2005, pp. 67–113.
- Benati, Alessandro and Lee, James. *Grammar acquisition and Processing Instruction: Secondary and cumulative effects*. Multilingual Matters, 2008.
- Cadierno, Teresa. "Formal instruction from a processing perspective: An investigation into the Spanish past tense." *The Modern Language Journal*, vol. 79, 1995, pp. 179–93.
- Cheng, An Chung. "Processing instructions and Spanish ser and estar. Forms with semantic-aspectual value." *Processing Instruction: Theory, research and commentary* edited by Bill VanPatten, Lawrence Erlbaum Associates, 2004, pp. 119–41.
- Farley, Andrew. "The effects of Processing Instruction and meaning-based output instruction." *Spanish Applied Linguistics*, vol. 5, 2001, pp. 57–94.
- Fernández, Claudia. "Approaches to grammar instruction in teaching materials: A study in current L2 beginning-level Spanish textbooks." *Hispania*, vol. 24, no.1, 2011, pp. 155–70.
- Gass, Susan. "Input and Interaction." *Handbook of second language acquisition*, edited by Catherine Doughty and Michael H. Long, Blackwell, 2003, pp. 224–55.
- Gass, Susan M. & Mackey, Alison. "Input, interaction and output in second language acquisition." *Theories in second language acquisition: An introduction*, edited By Bill VanPatten and Jessica Williams, Lawrence Erlbaum Associates, 2015, pp. 180–206.
- Lado, Beatriz, Bowden, Harriet, Stafford, Catherine & Sanz, Cristina. "A fine-grained analysis of the effects of negative evidence with and without metalinguistic information in language development." *Language Teaching Research*, vol. 21, 2013, pp. 1–25.
- Lee, James and VanPatten, Bill. *Making communicative language teaching happen. 2nd ed.*, McGraw-Hill, 2003.
- Leeser, Michael. "Learner proficiency and focus-on-form during collaborative dialogue." *Language Teaching Research*, vol. 8, no.1, 2004, pp. 55–81.
- Leeser, Michael and DeMil, Andrew. "Investigating the secondary effects of Processing Instruction in Spanish: From instruction on accusative clitics to transfer-of-training effects on dative clitics." *Hispania*, vol. 96, no. 4, 2013, pp. 748–62.

- Liu, Min, Moore, Zena, Grahan, Lean and Lee, Shinwoong. "A look at the research on computer-based technology use in second language learning." *Journal of Research on Technology in Education*, vol. 34, no. 3, 2002, pp. 250-73.
- Loewen, Sean and Erlam, Rosemary. "Corrective feedback in the chatroom: an experimental study." *Computer assisted language learning*, vol. 19, no. 1, 2006, pp. 1-14.
- Mackey, Alison. "Feedback, noticing and instructed second language learning." *Applied Linguistics*, vol. 27, no. 3, 2006, pp. 405–30.
- Mackey, Alison and Philp, Jenefer. "Conversational interaction and second language development: recasts, responses, and red herrings?" *The Modern Language Journal*, vol. 82, 1998, pp. 338–56.
- Morgan-Short, Kara and Bowden, Harriet. "Processing Instruction and meaningful output-based instruction: Effects on second language development." *Studies in Second Language Acquisition*, vol. 28, 2006, pp. 31–65.
- Sanz, Cristina and Morgan-Short, Kara. "Positive evidence versus explicit rule presentation and explicit negative feedback: A computer-assisted study." *Language Learning*, vol. 54, no.1, 2004, pp. 35–78.
- Stafford, Catherine, Bowden, Harriet and Sanz, Cristina. "Optimizing language instruction: Matters of explicitness, practice and cue learning." *Language Learning*, vol. 62, no. 3, 2012, pp. 741-68.
- Sung, Yao-Ting, Chang, Kuo-En, and Liu, Tzu-Chien. "The effect of integrating mobile devices with teaching and learning performance: A meta-analysis and research synthesis." *Computers & Education*, vol. 94, 2015, pp. 252–75.
- VanPatten, Bill and Cadierno, Teresa. "Input Processing and second language acquisition: a role for instruction." *The Modern Language Journal*, vol. 77, no.1, 1993, pp. 45–57.
- VanPatten, Bill and Wong, Wynne. "Processing Instruction and the French causative: Another replication." *Processing Instruction: Theory, research and commentary* edited by Bill VanPatten, Lawrence Erlbaum Associates, 2004, pp. 97-118.
- Warschauer, Mark, and Meskill, Cara. "Technology and second language learning." *Handbook of undergraduate second language education* edited by J. Rosenthal, Lawrence Erlbaum, 2000, pp. 303-18.
- Wong, Wynne and VanPatten, Bill. "The evidence is IN: Drills are OUT." *Foreign Language Annals*, vol. 36, no. 3, 2003, pp. 403-23.
- Young, Shelley Shawu-Ching. "Integrating ICT into second language education in a vocational high school." *Journal of Computer Assisted Learning*, vol. 19, no. 4, 2003, pp. 447-61.