The Effect of Online Flipped Lessons on Language Learning Outcomes

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Abstract

Using virtual reality (VR) platforms to conduct online lessons in real time has generated interest among language teachers since VR can potentially improve learning outcomes for language learners. However, most research studies that have been carried out on this topic have tended to be small-scale case studies. They typically include a small number of participants for a short time period focusing on limited areas of language learning such as vocabulary acquisition [1]. Unfortunately, there are few longitudinal studies which have critically examined how VR can affect wider aspects of language learning and teaching. To bridge this gap, the presenters initiated a quasi-experimental study to compare learning outcomes under two online flipped conditions: Zoom and VR. The control group study (Zoom) was completed in early 2023 with 31 Japanese university students taking part in a one hour, once a week, eight-week course. The experimental (VR) group study begins in October 2023 with approximately the same number of participants. In this paper, the methods and results from the Zoom phase of the study are shared. The materials that the participants used were a series of YouTube videos about 'Small Talk in English'; that is, strategies and tips for improving basic communication skills when meeting somebody for the first time. Each lesson had a similar pattern alternating between teacher talk and short breakout room sessions in which students practiced small talk. These breakout room sessions were all recorded and transcribed. Each student’s English level was scored by two external assessors at the beginning, middle and end of the course. Results from the data collection suggest that such a flipped online classroom is successful in promoting meaningful improvements in spoken language ability, especially in terms of improving skills to initiate and sustain conversations.

Keywords: online language lessons, small talk in English, flipped lessons, Zoom, language learning outcomes

1. Introduction

Since 2020 and the spread of COVID-19 across the globe, language teachers in all kinds of contexts have moved their lessons online, often using some kind of video conferencing tool such as Zoom. These tools allow whole group participation as well as pair or small group interactions using the 'breakout room' feature. For many teachers using these tools for the first time was very stressful and, not unnaturally, they tried to replicate what they were used to in their face-to-face contexts. For others, however, this was an opportunity to try out different approaches that they had not thought of before. One of these is the flipped classroom approach [2], which, simply put, means that students learn about and prepare content before a lesson and the lesson itself is mainly focused on practising a specific skill or strategy. There are several studies which show that a flipped approach can benefit language students as it gives them increased opportunities to study autonomously and develop oral proficiency [3, 4].

Online lessons are particularly suited for a flipped approach as students will, as a matter of course, have to access materials independently. It is also possible in an online environment to gather data about student interaction that may not be so easy to do in a face-to-face lesson. The group lessons can easily be recorded and with some ingenuity even individual breakout rooms can be recorded. However, there are few studies examining the impact of the flipped approach in an online language learning context. This paper will describe one project which gathered data to see if an online flipped approach was effective in improving spoken learning outcomes.

2. The Study
As part of a larger project comparing the effects of VR and online video conferencing on language learning, the two authors conducted a quasi-experimental study involving 31 participants (19 females and 12 males) with an average age of 20.3. The target participants were Japanese language speakers enrolled at four Japanese universities. Thirty-one intermediate to higher intermediate English proficiency students were asked to join eight one-hour weekly English lessons that were held on Zoom from December 2022 until February 2023. The study materials were a video course that the first author had jointly made about ‘Successful Small Talk in English’. The 14 five- to six-minute videos teach students various tips and strategies as well as English words and phrases so that they can better carry out small talk. These include, for example, common topics for initiating small talk and listening strategies such as echoing and back-channelling.

The students watched two of the videos each week prior to the lessons. During the lesson, for each video they would have a short quiz to check their understanding, then go to a breakout room in groups of four or five to discuss the content of the videos, and finally they would practice small talk in pairs. The total number of opportunities for participants to talk to each other during every lesson was five, and out of the hour-long lesson approximately 40 minutes was spent interacting with other students. The students were rated three times during the course quantitatively and qualitatively using the paired end of lesson recordings.

To analyse the effects of the Zoom experience on language learning outcomes we will share the results of two data sources: participant English level ratings, and a qualitative analysis of student small talk.

3. Results
3.1 Rater assessments
To evaluate students’ learning outcomes, two raters scored the students’ performance with a rubric consisting of five criteria: fluency and coherence, lexical resources, grammatical range and accuracy, pronunciation, and interaction and communication strategies. The raters watched three videos per participant in which the students engaged in small talk with another partner. Videos were selected at three different time points throughout the course: the beginning as a pre-test, the middle as a mid-test, and the end as a post-test. The maximum score on each of these tests was 25.

Table 1 shows the mean scores of the control group on the pre-, mid- and post-tests. The means show a gradual increase but to further investigate this observation, a repeated measures ANOVA was calculated, which yielded significant results at p<.001. This means that the pre-test, mid-test and post-test scores were statistically different. Pairwise comparisons using Bonferroni correction as the adjustment method for multiple comparisons show that there was no significant difference between the pre- and mid-test scores; however, the post-test scores were significantly higher than both the pre- and mid-test scores. This means that the students made significant progress as time went by.

Table 1: Pre-, mid- and post-test mean and standard deviation values and pairwise comparisons

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<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Pairwise comparisons</th>
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<tbody>
<tr>
<td>Pre-test</td>
<td>17.88</td>
<td>2.54</td>
<td>Mid-test .337</td>
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<td></td>
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<td>Post-test &lt;.001**</td>
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<tr>
<td>Mid-test</td>
<td>18.46</td>
<td>2.72</td>
<td>Pre-test .337</td>
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<td>Post-test &lt;.001**</td>
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<tr>
<td>Post-test</td>
<td>20.02</td>
<td>1.80</td>
<td>Pre-test &lt;.001**</td>
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<td></td>
<td>Mid-test &lt;.001**</td>
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3.2 Small Talk Qualitative Analysis
In order to aid readers in imagining the context in which the lessons took place, a qualitative analysis of conversations carried out by ‘lower achievers’ and ‘higher achievers’ will be described. Lower achievers tended to be hesitant when speaking, characterized by long pauses at the beginning or the middle of their small talk. They often struggled to pronounce English clearly and spoke with a strong Japanese accent that often featured an unnecessary additional vowel and a monotonous tone (negative L1 transfer). They sometimes had difficulty understanding their partners due to insufficient listening skills, had a limited choice of words and phrases and made frequent grammatical errors.
They often responded in fragments or really short utterances, used a lot of Japanese words or even full sentences and pause fillers without using any compensation strategies. Regarding small talk, overall, they had long pauses, little effort to initiate conversation or take the lead, and a reluctance to ask follow up questions or give extended answers, all of which can be attributed to their general low proficiency level.

In general, the higher achievers were the opposite of the lower achievers. They were fluent, did not hesitate too much, had clear pronunciation, and made few errors. Regarding small talk, they could initiate talk by asking questions of their partners, asking follow-up questions and adding extra details without being asked. They also gave positive back channeling signals and echoed what their partner said. In this way they could initiate talk about a common topic and then successfully sustain the conversation. The content of conversations also reflected some of the lessons’ small talk topics and themes: weather, recent news, and weekend plans; specific language strategies such as using metaphors; and, examples of praise and compliments. As the talks finished somewhat abruptly due to the closing of the breakout rooms by the authors there were few examples of ‘natural’ endings except ‘thanks, nice talking to you’ type comments. There were many laughs and smiles between the speakers who seemed genuinely interested in their partner’s answers which created a good rapport.

4. Discussion
There is some evidence from the rater assessment of speaking skills that exposure to an online flipped approach benefited the participants and that over the course of eight weeks they improved their proficiency levels. In particular, the higher achieving students showed evidence of having picked up specific small talk strategies including ways to initiate and sustain conversations.

It is suggested that there could be several reasons for this, all of which are connected to the flipped approach. Firstly, the video materials were useful, and overall most students did study them prior to the lessons. During the lessons the main points were checked by the students themselves, so they had an opportunity to learn from their peers; and finally, they were given plentiful opportunities to practice. This kind of practice would probably have been more limited in a traditional classroom where the video input would have taken more class time. In addition, the breakout rooms allowed students the chance to talk in pairs in a fun and enjoyable manner.

The teaching implications are that if a flipped approach is used then the materials must be motivating and easy for students to use; that as much time as possible spent in the lesson on practicing skills will result in improved learning outcomes; and, that the use of breakout rooms is an excellent way to increase practice opportunities.

5. Conclusion
This paper describes the first part of a quasi-experimental study comparing a Zoom and VR flipped classroom approach to teach small talk skills to English language learners in Japan. The results indicate that the participants improved their speaking skills over the eight-week course and that higher achieving students could better initiate and sustain conversations. The next stage of the project is to repeat the small talk course using a web-based VR platform.

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References
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