A Replication of “Is Form-Focused Vocabulary Instruction Worthwhile?” (Mason and Krashen, 2004)

Stephen Clarke

Story listening is an instructional procedure developed by Beniko Mason, in which teachers aim to provide compelling, comprehensible aural input by telling stories and using pictures, gestures and L1 translations to help learners to understand the content (Mason, 2015). Studies have suggested that story listening is a more efficient way of developing vocabulary knowledge than more traditional and form-focused types of vocabulary instruction (Mason, 2007; Mason and Krashen, 2004; Mason, Vanata, Jander, Borsch and Krashen, 2009).

These short research notes present a loose replication of “Is Form-Focused Vocabulary Instruction Worthwhile?” (Mason and Krashen, 2004), which reported a quasi-experimental study of two treatments and their relative effects on vocabulary growth. In both treatments, subjects listened to a story, but one of the groups also did supplementary vocabulary activities designed to teach the new words in the story. This group gained more words on a delayed post-test than the group that only listened to the story, but the latter gained more words per minute of exposure, suggesting that story listening alone is more efficient than combining story listening with traditional vocabulary activities.

Method

Subjects were second-year English majors at a Japanese junior college. Two regular, weekly classes taught by the author received different treatments. One class was the “story-only” group (n=8) and the other class was the “story-plus-study” group (n=6). The treatment for the story-only group involved the following procedure:

1. A handout containing 26 target English words was distributed and the subjects were asked to write an L1 translation of each word. This pre-test was then handed back to the teacher. The test took 5 minutes.

2. The subjects listened to a story (The Frog Prince), which contained the target words. The teacher told the story in English (25 minutes) and wrote the target words on the board after they occurred in the story, often using L1 to explain the meaning but sometimes using pictures or gestures. Some subjects wrote down notes on the meaning of the target words on note paper.

3. The subjects took the 1st post-test, which included the same words as the pre-test, but in a different order. They were not allowed to look at their note paper during the test. The test took 5 minutes.
For the story-plus-study group treatment, the following procedure was used:

Steps (1) and (2) were the same as for the story-only group.

(3) The teacher asked a few comprehension questions on the story, the answers to which required use of the target words. The teacher also said the L1 translation of some of the target words and asked subjects for the correct English word. These activities took 5 minutes.

(4) The subjects took the same translation test (1st post-test) as the story-only group. This took 5 minutes.

(5) After taking the test, subjects exchanged their test papers with a partner and checked their answers with the teacher, who gave the correct answers in L1 (5 minutes).

(6) The subjects then worked in pairs using flashcards. The cards contained the target word on one side and either a picture representing the meaning or an L1 translation on the other. The subjects shuffled the cards and quizzed each other, eliciting the target words. This took 10 minutes.

(7) The teacher erased the words from the blackboard. The subjects, still working in pairs, were told to pick a flashcard and to try to create a sentence using the target word that related to the story. All production was oral. If the subject’s partner was satisfied with the veracity of the sentence, the subjects swapped roles. This output task took 15 minutes.

(8) The teacher presented English definitions of some of the target words orally and elicited the correct target words from the whole class. This took 5 minutes.

(9) The subjects worked in pairs again and used the flashcards to review all the target words once more. This took 3 minutes.

(10) At the end of the class period, the subjects took the same translation test as in step 4 once more (2nd post-test).

If the time spent on testing is not counted, the story-only group thus spent 25 minutes listening to a story, whereas the story-plus-study group spent a total of 68 minutes listening to a story and then doing supplementary input- and output-based vocabulary exercises. A delayed post-test was conducted 5 weeks later. Subjects in both groups were not expecting to be tested again on the 26 target words that appeared in the story.

The procedure followed for the story-plus-study group in this study varies somewhat from the original study, in which students read a written version of the story and were asked to retell the story using the target words on the board, instead of using flashcards. In both studies, however, there is a focus on both providing input and eliciting output that contains the target words, and a similar amount of time was spent on checking L1 translations of the words with the teacher and with classmates, so the procedures were broadly similar. The author decided to use flashcards in this study because it has been claimed that they are an effective way of learning vocabulary items deliberately (Nation, 2002, 2009).

The reliability of the pretest was low (KR21=0.13) due to the uniformly low scores but the reliability values of the immediate post-test and delayed post-test were satisfactory (0.84 and 0.61).
Results

Mean scores on the pre-test (Table 1) were similar and not significantly different ($t=0.49$, $df=12$, $p=0.32$). Whereas the story-only group took the first post-test immediately after listening to the story, the story-plus-study group took it after listening to the story and being asked some comprehension questions and matching L1 translations with the English words. The mean score of the story-plus-study group was only slightly higher, however, and the difference was not statistically significant ($t=-0.85$, $df=12$, $p=0.21$). After doing vocabulary exercises for 43 minutes, 5 of the 6 subjects in the story-plus-study group were able to achieve a perfect score on the 2nd post-test.

On the delayed post-test, mean scores for both groups dropped considerably. The story-plus-study group mean was higher, 11.5 compared to 9.0, but the difference was not statistically significant ($t=-1.22$, $df=12$, $p=0.12$).

<table>
<thead>
<tr>
<th></th>
<th>pre-test</th>
<th>1st post-test</th>
<th>2nd post-test</th>
<th>delayed post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>story-only group</td>
<td>4.4 (2.1)</td>
<td>18.5 (5.9)</td>
<td>—</td>
<td>9.0 (3.1)</td>
</tr>
<tr>
<td>story-plus-study group</td>
<td>3.8 (1.9)</td>
<td>20.8 (3.5)</td>
<td>25.8 (0.4)</td>
<td>11.5 (4.6)</td>
</tr>
</tbody>
</table>

From the mean post-test scores reported above, the pre-test mean was subtracted to reveal the increase in correct answers on the word test, or number of words gained (Table 2). The story-plus-study group gained 7.7 words after 5 weeks (35% of the words that were unknown at the pre-test), compared to only 4.6 words for the story-only group (21% of the words that were unknown at the pre-test), but it must be remembered that the story-plus-study group spent considerably more class time on learning the words.

<table>
<thead>
<tr>
<th></th>
<th>words gained in 1st post-test</th>
<th>words gained in 2nd post-test</th>
<th>words gained in delayed post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>story-only group</td>
<td>14.1 (65%)</td>
<td>—</td>
<td>4.6 (21%)</td>
</tr>
<tr>
<td>story-plus-study group</td>
<td>17.0 (77%)</td>
<td>22.0 (99%)</td>
<td>7.7 (35%)</td>
</tr>
</tbody>
</table>

The efficiency of each treatment was calculated by dividing the number of words gained on each test by the number of minutes spent on listening to the story (25 minutes), or listening to the story and doing supplementary vocabulary exercises (68 minutes). These words-learned-per-minute values are presented in Table 3 above the efficiency values reported in the original study.

The efficiency results in this study are lower than in the original, possibly because the time spent on telling the story was longer (25 minutes in this study compared to 15 in the original). However, these results provide more evidence to support the assertion that the vocabulary acquisition rate from listening to stories is somewhere between 0.10 and 0.25 (Mason and Krashen, 2018).

The calculations presented in Table 3 do not consider time spent on testing. As Mason and Krashen (2004)
Table 3 – Efficiency (words learned per minute)

<table>
<thead>
<tr>
<th></th>
<th>1st post-test</th>
<th>2nd post-test</th>
<th>delayed post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>story-only group</td>
<td>0.57</td>
<td>—</td>
<td>0.19</td>
</tr>
<tr>
<td>story-only (Mason and Krashen, 2004)</td>
<td>0.62</td>
<td>—</td>
<td>0.25</td>
</tr>
<tr>
<td>story-plus-study group</td>
<td>0.57</td>
<td>0.32</td>
<td>0.11</td>
</tr>
<tr>
<td>story-plus-study (Mason and Krashen, 2004)</td>
<td>0.42</td>
<td>0.23</td>
<td>0.16</td>
</tr>
</tbody>
</table>

noted, it could be argued that the pre-test primed the subjects to pay attention to the target words while listening to the story and the 1st and 2nd post-tests could have helped the subjects keep the words in their memory during the delayed post-test. Therefore, efficiency was recalculated by adjusting the total time in each calculation. Five minutes were added to the total time for the pre-test and a further 5 minutes for any post-test(s) that the subjects had taken at that time. For the delayed post-test calculations, this meant that the total time was 35 minutes for the story-only group and 83 minutes for the story-plus study group.

Table 4 – Efficiency including time for testing

<table>
<thead>
<tr>
<th></th>
<th>1st post-test</th>
<th>2nd post-test</th>
<th>delayed post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>story-only group</td>
<td>0.47</td>
<td>—</td>
<td>0.13</td>
</tr>
<tr>
<td>story-only (Mason and Krashen, 2004)</td>
<td>0.47</td>
<td>—</td>
<td>0.15</td>
</tr>
<tr>
<td>story-plus-study group</td>
<td>0.49</td>
<td>0.28</td>
<td>0.09</td>
</tr>
<tr>
<td>story-plus-study (Mason and Krashen, 2004)</td>
<td>0.52</td>
<td>0.2</td>
<td>0.13</td>
</tr>
</tbody>
</table>

If time for testing is included, the efficiency fell from 0.19 to 0.13 for the story-only treatment and from 0.11 to 0.09 for the story-plus-study treatment.

Discussion

The results of this replication were similar to the original study, in that calculations of words learned per minute showed that the story-only group learned words more efficiently than the story-plus-study group. If time for testing is included in the total time spent on each treatment, this superiority was maintained and the difference was even larger than in the original study.

The aim of the original study was to examine the claim made by Coady (1997, in Mason and Krashen, 2004) that direct vocabulary instruction is more effective than incidental acquisition and that combining both approaches is more effective than incidental acquisition alone. Story listening, as practiced in the original study and this replication, did not promote pure incidental vocabulary learning, as the subjects’ attention was focused on the form of the target words to some extent. However, these studies have attempted to compare a lesser to a much greater focus on form in vocabulary instruction. Results in both
studies reveal that additional activities with a heavier focus on form lead to a drop in efficiency. Due to the small sample size in this study, any conclusions must remain extremely tentative, but these results are consistent with the original study and challenge the superiority of direct form-focused vocabulary instruction that has been claimed.

Teachers need to know how to use class time wisely so the issue of efficiency is extremely important and further research is needed. It is not known, for example, if story listening would maintain its efficiency if learners listened to more than one story during class, or whether there is an alternative and superior combination of supplementary vocabulary exercises and an ideal time to spend on them. It must not be forgotten, however, that listening to stories may provide many benefits other than vocabulary development, such as grammar acquisition, and it is enjoyable (Mason and Krashen, 2004).

References

Mason, B., & Krashen, S. (2018). American Students’ Vocabulary Acquisition Rate in Japanese as a Foreign Language from Listening to a Story. Turkish Online Journal of English Language Teaching, 3(1), 6–9