Vocabulary Acquisition through Storytelling

by Dr. Beniko Mason

It has been demonstrated that vocabulary acquisition is possible from listening to stories (Elley, 1989), but it has also been argued that this source of vocabulary is insufficient and inefficient, that students need direct instruction as well (e.g. Nation, 1990). In this study, I attempt to confirm that listening to stories leads to the acquisition of vocabulary as well as to determine how efficient this acquisition is, i.e., how it compares to direct instruction.

Experiment 1: Story-telling vs. List-learning

The 60 participants (n=27, n=33) were first-year English majors at a four-year private college in Osaka, Japan. All students participated in both treatments.

In the storytelling treatment, participants first took a pretest on 30 words (writing definitions in Japanese). They then listened to a story, "The North Wind and Sun," that contained the 30 words.

The words on the sheet were also written on the blackboard in front of the class. While the teacher told the story she pointed to the words on the board so that they could tell which word was used to tell the story. The participants occasionally raised their hands to indicate to the teacher when they did not understand the meaning of the word, which the teacher then explained or clarified using a drawing. The story took about 20 minutes.

After listening to the story, the participants retook the vocabulary test on the 30 words. A week later, students took an unexpected follow-up test on the same words, but presented in a different order.

The second treatment was given a week later immediately after the same participants took the follow-up test for the storytelling method. The same participants were tested on a different list of 30 words. They were given the Japanese definitions of the words and were told to try to learn the words in the next 20 minutes, using any techniques they wanted to use. Students were allowed to work together. Subjects then took a post-test and a follow-up post-test one week later, which may or may not have been expected.

As shown in table 1, the List-learning method was very successful immediately after learning. The mean score of the list method immediately after list-learning was 28.5 out of 30, while the mean score of the Story-telling method was 17.2 out of 30. The results of the follow-up test showed a large drop in retention for list-learning with much less of a drop for words acquired from story-telling. Sixty-three percent of the list-learned words that were learned were forgotten on the follow-up (26.1 words unknown, 24.6 learned, 15.7 forgotten), but only 25% of the words acquired via story-telling were forgotten on the follow-up test (21.7 words unknown, 17.2 acquired, 2.2 forgotten).

These results and interpretation were confirmed by an Analysis of Covariance. The adjusted means for the follow-up post-test were not significantly different (list-learning = 14.6, story-telling = 13.2; $F = 1.5$, $p = .23$).

Table 1:

Variables	N	Mean	S.D	Gain	Loss
LIST PRE	35	3.9	2.6		
LIST POST	35	28.5	2.6	24.6	
LIST FU	34	12.8	4.4	8.9	15.7
STORY PRE	38	8.3	2.8		
STORY POS	38	17.2	4.7	8.9	
STORY FU	27	15.0	3.2	6.7	2.2

FU = follow-up, one week later

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Experiment 2: Story-telling plus skill-building vs. Story-telling alone

Subjects were 58 first-year Japanese female students at a junior college in Osaka who had very little exposure to aural input in English. One class (n = 27) was the Story-Only group and another (n = 31) was a story plus supplementary activities group (Story-Plus Group). The Story-Only group experienced the following method:

(1) The 20 target words from a story ("The Three Little Pigs") were written on the board in front of the class.
(2) The participants took a translation test (pretest) on these 20 words (lasted 5 minutes). They were asked to write the meaning in Japanese for each English word on the list.
(3) The students put down the paper and the pencil and listened to the story, which contained the target words (15 minutes).
(4) After listening to the story, the participants took the post-test on the same list of the words (5 minutes).

The Story-Plus group experienced the following method:

(1) through (3) were identical to the method followed by the Story-Only group.
(4) The teacher asked oral comprehension questions that used the target words in a way that the target words had to be used to answer the questions (10 minutes).
(5) The participants took the same translation test again (mid-test, 5 minutes).
(6) After taking the test, the participants exchanged test papers with their neighbor and checked the answers with the teacher who gave the correct answers in Japanese (10 minutes).
(7) The students read a written version of the story. They were asked to underline the words they wanted to learn including the target words. (10 minutes)
(8) The participants told the same story to their study partner. They were encouraged not to refer to the text, but to use the target words that were on the board (20 minutes).
(9) The participants took the same translation test again as the posttest (5 minutes).
(10) The teacher gave the correct answers for the test (5 minutes).

The Story-Plus group spent almost the entire class hour (85 minutes. 5 minutes for other business) doing different activities using a story as described above. The Story-Only group listened to a story for only 15 minutes.

There was little interaction between the teacher and the participants. The participants saw the words on the board and took the pre-test which primed them to notice the words and pay attention to the words during the storytelling. When the participants looked uncertain, the teacher clarified the meaning of the words using drawings or verbal explanations.

Note that the Story-Only group took the translation test twice, but the Story-Plus group took it three times. In addition, both groups were given an unexpected follow-up test 5 weeks later.

Results

Mean scores on the pretest were similar (Table 1). The Story-Plus group was better on all measures, including the surprise follow-up test given five weeks later, learning about twice as many words as the Story-Only group. All differences were statistically significant ($p < .001$).

Table 2: Descriptive Statistics on Vocabulary Test

Group	Test	N	M/SD	Gain	Final Gain
Story	Pre	27	4.6/2.3		
	Post	27	13.9/3.4	+9.3	
	Delay	27	8.4/3.5		+3.8
Story+	Pre	31	4.7/1.7		
	Mid	31	15.1/2.6	+10.4	
	Post	31	19.7/0.6	+15.0	
	Delay	31	16.1/2.2		+11.4

The Story-Plus group, however, invested much more total time than the Story-Only group. In terms of efficiency, the Story-Only group looks much better: If we count time for testing, the Story-Only group acquired .15 words per minute and the Story-Plus group acquired .13 words per minute, very close results. Testing time not counted, the Story-Only group looks even better, acquiring .25 words per minute.

Table3: Efficiency

Method	Story-ONLY	Story-PLUS
Time Spent	25minutes including testing time	85 minutes including testing time
Remembered Words	3.8	11.4
Rate	0.15 per minute	0.13 per minute

Discussion and Conclusions

The first study showed no difference between a story method and a list-learning method for vocabulary learning on a delayed posttest. The second study found no difference in efficiency in vocabulary learning between story-telling only and story-telling supplemented with vocabulary learning activities. These findings are consistent with the results of previous studies showing that hearing stories results in vocabulary development. The results appear to be consistent with the Comprehension Hypothesis (Krashen, 2003), which claims that language development is the result of the comprehension of messages. The story-telling method used here, however, used some focus on form: subjects knew that vocabulary development was the goal of the story and they were directed to pay attention to the new words. The Story-Only groups, however, did no language production and did not have their errors corrected, which conforms to an important aspect of the Comprehension Hypothesis: production and feedback are not necessary for language development to occur.

The finding that story-telling is as effective as more traditional methods is encouraging. Stories are far more pleasant and engaging than traditional instruction, and students can gain other aspects of language from stories, as well as knowledge.

References

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Beniko Mason has been investigating the efficacy and efficiency of comprehension-based methods since 1985. She has published several studies on the use of extensive reading in the EFL class, and her recent focus is the use of storytelling.

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