



The effects of task type and repetition frequency on enhancing FLL’s receptive word knowledge to productive mastery

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Introduction

The concepts of receptive vocabulary and productive vocabulary have long been established. A great number of empirical studies show that learners usually possess comparatively more receptive words compared to their productive vocabulary; therefore FLT emphasis should be changed from enhancing learners’ vocabulary knowledge to promoting their receptive vocabulary to productive mastery. However, existing related research has seldom explored the progression of word knowledge from receptive mastery to productive application. To fill in this research gap, this study aims to examine the impact of learning task types and repetition frequency on improving learners' productive mastery of words they have got receptively.

Methods

1 Participants

146 freshmen taking EFL courses (aged 17–19 years) enrolled in four classes.

2. Materials

- a. Target words(2 pre-tests, 18 target words)
- b.Words learning tasks
(4 kinds of exercises as learning tasks, 12 exercises, 6 questions corresponding to 6 targets)
- c. Controlled production tests
(3post-tests, each 18 sentences from BNC,).

Table 1. Sample of task types.

Task type	Instruction	Question format
Multiple-choice (MC)	Choose the appropriate word for each sentence.	He went to the door, opened it a ____, and peered in. (A) hole; (B) line; (C) crack; (D) slit.
Gap-filling (GF)	Choose a word from the list to complete each sentence.	He went to the door, opened it a ____, and peered in.
Sentence translation (ST)	Translate each sentence into English. Pay attention to the underlined part.	他走到门口，打开 <u>一条缝</u> ，往里偷看。
Sentence writing (SW)	Construct an English sentence with the word given.	crack (Example: He went to the door, opened it a crack and peered in.)

3. Design

In this study, a mixed design was adopted, with task type (4 types) as the inter-participants factor and repetition frequency (3 levels) as the intra-participants factor.

4. Procedure

- 1)The students took a post-test and their performance were first evaluated by two teachers according to the total number of recalled target words(retrieval rate);
- 2) The results were compared and all differences were discussed;
- 3)The researcher and a native-speaking English teacher assessed the retrieval accuracy by evaluating the target word learners recalled.

5. Data Analysis

Repeated measure ANOVA was used to check the differences. Two indexes (retrieval rate and accuracy) were analyzed separately (α level:0.05). When significant effects were detected, the Bonferroni method of multiple comparisons was used to locate where the differences occurred.

Results

1 Task type

The groups of ST and SW greatly outperformed those of MC and GF on both retrieval rate and accuracy, producing medium to large effect sizes ($0.72 \leq d \leq 1.59$)

Table 5. Summary of significant differences between task types based on retrieval rate and retrieval accuracy.

Repetition condition	Pair-wise comparison	p-value	Cohen's d
<i>Retrieval rate:</i>			
2 retrievals	ST > MC	< .001	.91
	SW > MC	.001	1.01
4 retrievals	ST > MC	< .001	1.18
	ST > GF	.008	.77
6 retrievals	SW > MC	< .001	1.44
	SW > GF	< .001	1.03
	ST > MC	.011	.72
	SW > MC	< .001	1.59
	SW > GF	< .001	1.08
	SW > ST	.004	.85
<i>Retrieval accuracy:</i>			
2 retrievals	ST > MC	.032	.64
	SW > MC	.027	.70
4 retrievals	ST > MC	< .001	1.01
	ST > GF	.026	.66
6 retrievals	SW > MC	< .001	1.61
	SW > GF	< .001	1.22
	GF > MC	.019	.63
	SW > MC	< .001	1.28
	SW > GF	.037	.63
	SW > ST	.012	.85

Notes. MC = multiple-choice. GF = gap-filling. ST = sentence translation. SW = sentence writing.

2. Repetition frequency

The performance of students with four retrievals was significantly better than that with two retrievals, showing an effect size ($0.70 \leq d \leq 1.70$). However, when the frequency was increased from 4 to 6 times, only 3 task groups showed a significant improvement in retrieval rate, with an effect size ($0.78 \leq d \leq 0.97$), without any improvement in accuracy.

Table 6. Summary of significant differences between levels of repetition frequency.

Task type	Pair-wise comparison	p-value	Cohen's d
<i>Retrieval rate:</i>			
Multiple-choice	4 rs > 2 rs	< .001	.91
	6 rs > 4 rs	< .001	.78
Gap-filling	4 rs > 2 rs	< .001	.82
	6 rs > 4 rs	< .001	.97
Sentence translation	4 rs > 2 rs	< .001	.94
Sentence writing	4 rs > 2 rs	< .001	1.40
	6 rs > 4 rs	< .001	.89
<i>Retrieval accuracy:</i>			
Multiple-choice	4 rs > 2 rs	.004	.70
Gap-filling	4 rs > 2 rs	.001	.75
Sentence translation	4 rs > 2 rs	< .001	1.00
Sentence writing	4 rs > 2 rs	< .001	1.70

Notes. 2 rs = 2 retrievals, 4 rs = 4 retrievals, 6 rs = 6 retrievals.

Discussion

The discussion revolved around the two research questions:

- 1) In the light of retrieval rate and accuracy, do different types of learning tasks have different effects on promoting productive mastery of learned words?
- 2) Does increased repetition promote productive mastery of learned words in the light of retrieval rate and accuracy?

1 The effects of task type

Productive learning not only helps learners to master new words but also promotes learners to master receptive vocabulary. When enough repetition is allowed, some productive learning types perform better than others.

2 The effects of repetition frequency

A reasonable number of retrievals can greatly help learners master the receptive words, but the effect tends to decline after four retrievals.

Conclusions

1. Productive tasks produce memorably higher efficiency than receptive tasks, and some types of productive tasks are more effective than others;
2. Repetition contributes to enhancing learners’ productive mastery of words they’ve got receptively, but not the more repetition, the better the results. The ideal number of retrievals should be three or four.

Limitations:

1. The research involves a very limited number of task learning of productive activities.
2. Only learners of one L1 were engaged in the study.

Bibliography

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