

The Effects of Creative Story Writing on EFL Learners' Vocabulary Learning and Retention

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ABSTRACT

This study aimed to determine the effect of creative story writing on prep school students' vocabulary recall and find the students' perceptions related to story writing tasks in terms of vocabulary learning and memorization. The study lasted 8 weeks with 34 intermediate prep school students, utilizing a mixed methods design. The analysis of independent-sample t-tests (for pre- and post-tests) and paired-sample t-tests (for the pre, post-, and delayed tests) indicated that creative story writing effectively improved students' vocabulary learning and recall. The written reflections of students also showed that the students reported the benefits of creative story writing in that it provides learning vocabulary in context, with a higher involvement load, with the act of writing that helps retention and also relates to pragmatics that caters to where, when and how to use that vocabulary. We offer implications for ELT, ESL learners, teachers, and course book writers.

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Introduction

From the Grammar Translation Method to the latest trends in English Language Teaching (ELT) much has been said and applied for the sake of teaching an additional language. However, the vitality and inevitability of vocabulary teaching have never changed. There are again many methods and approaches to teaching vocabulary that confirm its hard nature sourcing from the retention and recall of the words. Therefore, it might be difficult to assist pupils in building vocabulary that is enough for comprehension and expression in foreign language learning.

Researchers and teachers of second languages (L2) are interested in how input - examples of the language which a learner is exposed to- and output -language generated by a learner- play a role in L2 acquisition. According to some, L2 learners will succeed when they are exposed to a lot of comprehensible input and are not pressured to generate output (Barcroft, 2007). Others, however, believe that forcing students to generate output will increase their chances of success (Laufer, 1998). Typically, there are two types of vocabulary knowledge: productive knowledge and receptive knowledge (Nation & Meara, 2010). Memorizing vocabulary items via reading and listening is referred to as receptive vocabulary knowledge (Webb, 2008). However, the capacity of learners to absorb what they hear or read and to communicate their thoughts clearly in writing or speaking is known as productive vocabulary knowledge (Laufer, 1998).

In one of the approaches that examine the productive and receptive aspects of vocabulary learning, it is proposed that the load of the task may increase retention and recall, that is, the heavier the load, the better the words will be remembered. The involvement Load Hypothesis (Laufer & Hulstijn, 2001) proposes that there should be a greater demand for the type of vocabulary task to make students recall more items. The tasks mentioned can demand a vocabulary task that requires to use and to learn vocabulary items either in reading and listening activities or speaking and writing; however, among productive skills, especially writing more than sentence level is regarded as a task that increases the severity of the load.

Many studies have emphasized learning vocabulary via writing at the word level, sentence level, and paragraph level (Citrayasa et al., 2022; Jin & Webb, 2021; Tai et al., 2022; Yanagisawa & Webb, 2022; Zhou & Wang, 2024). Although these studies play a role in determining the role of writing in vocabulary learning and although they increase students' involvement load to a certain extent, the use of creative writing in the form of stories with multiple paragraphs to teach vocabulary seems to constitute a gap in the present literature. Thus, the purpose of the current study is to determine how composing creative stories affected students' retention of words that had previously been taught to them.

Literature Review

Self-regulated vs Guided?

Asking if instructor guidance or individualized learning makes vocabulary acquisition more remembered might be a good place to start when formulating the question

"How should one learn vocabulary? Self-regulated learning is an active process where students actively participate in becoming proficient in their own education. Rehearsal, elaboration, organization, time management, peer learning, effort regulation, monitoring, and other activities are examples of self-regulated learning strategies (Newman, 2023). Guided learning, on the other hand, is assigning a third party, namely the instructor, to oversee the pupils' educational journey (Nation, 2015). It might include offering advice on topics to research, supplying materials and resources, or providing feedback on objectives accomplished. These activities incorporate the application of cognitive, metacognitive, motivational, environmental, and behavioural elements drawn from social cognitive theory (Bandura, 1986).

In their review study, Vu and Peters (2021) seek to present an overview of vocabulary in English language instruction, assessment, and learning in Vietnam and suggest many methods, from intentional teaching to providing meaning-focused input. Nation's (2021) article *Is it worth teaching vocabulary?* examines the duties of teachers, which include, in priority order, (1) creating a well-rounded curriculum, (2) assigning and managing homework, (3) teaching students how to learn, (4) administering assessments, and (5) teaching vocabulary. There are a plethora of studies that propose that a view of vocabulary development based on cognitive linguistic theory from the perspective of self-regulation that can successfully improve English vocabulary teaching practice (Boroughani et al., 2023; Chang et al., 2021; Msaddek, 2024; Yang & Song, 2024; Zhou & Wu, 2024). Teng and Zhang's (2024) study examined how involvement in load-based tasks affect vocabulary learning in a foreign language and the extent to which learners' metacognition (i.e., metacognitive knowledge and regulation) predicts task effectiveness. Their findings indicated that the group of students who used a digital dictionary while learning independently to complete their reading and writing assignments performed the best in terms of learning both receptive and productive vocabulary. Teng (2023) also investigated the relationship between three individual difference variables and L2 vocabulary learning: proficiency, self-regulated capacity, and working memory, and found that word-focused exercises, especially sentence writing with target words, are beneficial for improving vocabulary learning. However, he also emphasized that learner-related variables, such as self-regulated capacity, working memory, and L2 proficiency, must be taken into account in order to maximize the effectiveness of word-focused exercises.

Incidental vs Intentional?

The notions of incidental and intentional vocabulary learning are commonly discussed concepts in vocabulary teaching and learning in English as a Second Language (ESL) and English as a Foreign Language (EFL) circles. The first describes "learners who pick up new words from context without intending to" while the second describes "learners who attempt to learn words intentionally" (Barcroft, 2004, p.201). Kost et al. (1999) examined the effects of graphical and textual glosses, as well as their combination, on the incidental vocabulary expansion of foreign language learners. The results of their study provide evidence that learners who use a gloss combining text and pictures perform

better in recognizing target words in both short-term memory and retention compared to those using either graphical or textual glosses alone. Schmitt (2008, p. 341), on the contrary, stated that “intentional vocabulary learning almost always leads to greater and faster gains, with a better chance of retention and of reaching productive levels of mastery than incidental vocabulary learning”. Paralleling this, Webb (2005) suggests that in contrast to incidental learning tasks like reading, writing as an intentional activity may be a more efficient way to learn vocabulary. In contrast to coming across target words when reading, Laufer (2003) discovered that sentence completion, writing words in sentences, and writing words in compositions all contributed to larger vocabulary acquisition increases. The effects of incidental vs accidental approaches on vocabulary learning are also the subject of several recent studies (Ekman & Saleh, 2023; Lin, 2023; Ünal, 2023). For instance, in his research, Ata (2023) investigated how 40 freshmen language learners' incidental and intentional vocabulary acquisition affects their performance on vocabulary and comprehension assessments and found no significant difference between the deliberate and accidental groups.

Contextualized vs Decontextualized?

According to Krashen's (1989) osmosis theory, reading extensively for enjoyment is a better way to learn words than doing deliberate vocabulary drills. Context, in other words, may help learners understand the meaning of a word and it may explain considerably more about a word's meaning than a translation or synonym could (Webb, 2007). McCarthy (1990) contends as well that a term is better retained and absorbed when it is taught in a meaningful context. Context, in fact, may improve the chances that new vocabulary will be learned more than decontextualized learning via translations, definitions, or synonyms (Webb, 2007). While decontextualized learning (e.g. word lists) may aid students in memorizing vocabulary for examinations, Oxford and Scarcella (1994) note that pupils rapidly forget terms learnt from lists in most circumstances. However, in some other research, learners who participated in the decontextualized exercises produced much greater increases in their understanding of meaning and form, according to comparisons between incidental vocabulary learning and learning word pairs (Laufer & Shmueli, 1997; Prince, 1996). Recently, Lindstromberg and Boers (2008) demonstrated that a mnemonic technique including alliteration produced a substantial lexical gain. The effects of contextualized vocabulary and decontextualized word lists on vocabulary development were also compared by Qian (1996) and his study indicated that students who were taught in decontextualized circumstances learnt more vocabulary than their peers who were in contextualized. Recent research has also examined the efficacy of contextualized versus decontextualized vocabulary learning (Aghajanzadeh Kiasi & Pourhosein Gilakjani, 2023; Matthews et al., 2023). Lo (2024), as an example, explored the potential benefits of watching dual-subtitled videos repeatedly for improving vocabulary learning in an experimental study that included three experimental sessions including “(a) immediate repeated viewing, (b) spaced repeated viewing, and (c) no repeated viewing” (p. 152) and discovered that learners may increase their vocabulary more when they watched dual-subtitled movies with repetition than when they didn't, and

there was evidence to support the idea that rapid repeats are preferable to spaced repetitions.

Writing a Word, a Sentence, a Paragraph, or a Composition?

Prior research has examined the impact of writing target words in sentences (sentence writing) and words (word writing in L2) on various vocabulary learning outcomes. For instance, Barcroft (2006) examined the impact of word writing (copying target words) on L2 learning in two experiments on English-speaking learners of Spanish and found that learning a new word by writing may have negative outcomes such as diminishing learning.

Barcroft (2006), however, in the same study also stated that although both word writing and sentence writing include output, sentence writing entails additional duties such as expanding on the meaning of target words, writing more words in each phrase, and processing for syntax. Thus, it may have different outcomes compared to word writing. The results of other earlier research on the impact of sentence writing on vocabulary learning have been conflicting in that some researchers have found that putting target words in sentences (Llach, 2009; Webb, 2005) or essays (Zou, 2017) was more successful than alternative techniques. However, on the same issue, Folse (1999) in his study on 154 EFL students enrolling in four American institutions' intense programs found no significant difference between the retention scores of students who do sentence completion exercise and those who write original sentences.

Involvement Load Hypothesis proposes that the level of involvement affects how well words are learned and retained in a second language (Laufer & Hulstijn, 2001). It makes the assumption that three factors caused by a task determine how successful a task is performed: two cognitive factors -research and assessment- and a motivational one -need (Hazrat & Read, 2022). Search and assessment are the first two cognitive processes. Checking dictionaries for word definitions is called search, and words are elaborated by students during evaluation. The need, which is a motivating factor, is the learners' goal to comprehend language (Hazrat & Read, 2022). Each component's relative importance was determined by Laufer and Hulstijn (2001). In addition to these factors, Hulstijn (1998) states that longer original writing assignment tasks helped students recall more vocabulary, which made their following learning tasks simpler since they encountered fewer unknowns. In Zou's study (2017), she examines how three common methods of assessment—cloze exercises, sentence-writing, and composition-writing—promote word learning and the allocation of involvement load to the evaluation component of the involvement load hypothesis. The study's findings were noteworthy in that the two writing exercises with higher participation loads resulted in noticeably better word learning than that of the cloze exercises, and despite having a similar involvement load, composition writing was much more successful than sentence writing. Kim (2008) also supports the idea that writing a composition requires more complex cognitive processing than writing a phrase; however, she asserts that these two strategies result in the same participation burden since they both demand that students employ target phrases in their own self-created situations. Jafari et al., (2018) evaluated the impact of four different post-reading-

based task types with varying task-induced involvement loads on EFL learners' detection and retention of unknown L2 vocabulary (Laufer & Hulstijn, 2001). To do this, 88 intermediate EFL students were divided into four groups at random and given the following instructions: after reading two narrative texts, complete the following tasks: (1) write a simple sentence; (2) summarize the text; (3) write a creative sentence; and (4) write an imaginative story. In both the immediate and delayed post-tests, the group that came up with original sentences performed better than the other three groups. Second, third, and fourth places, respectively, went to the groups that wrote imagined stories, summaries, and sentences (creative sentence writing > imaginary story writing > summary writing > sentence writing). More recently, Rassaei and Folse (2024) examined 110 EFL learners on the effects of sentence-level L2 glosses and word-level glosses in both first and second languages (L1) and L2) on the learning of L2 vocabulary. The results showed that, for L2 vocabulary learning, sentence-level glosses are much more successful than word-level L1 or L2 glosses, but there was no discernible difference in learning benefits between word-level L1 and L2 glosses. The findings point to the significance of including sentence-level glosses in materials designed for L2 vocabulary instruction.

Retention and Recall?

Attention and noticing are two interrelated, crucial elements in exercise design that have been debated in L2 acquisition research (Schmidt, 1990). Hulstijn (1998) investigated whether writing 10 target words is more efficient for recall than just coming across them in a reading passage in a study of Dutch EFL learners. He carried out his study in three different steps which he named *conditions*. In Condition 1, students do only reading and score 4.3 out of 10 for retention on average, and in Condition 2, they first read and as a second step do a gap-filling exercise (average score 5.9), and in the final stage (Condition 3), they write a letter with target words to the editor resulting with a score of 7.1. The outcomes of the study showed that in Condition 3, original letter writing, students had the strongest retention. Similar to this, based on the Involvement Load Hypothesis, Feng (2014) investigated the impact of three translation tasks on EFL learners' vocabulary development. In this study, 60 EFL students were given three distinct translation assignments to complete: translation simply, translation with fill-in exercises, and translation plus sentence composition. Thirty verbs were chosen from business papers to be taught to the students. The findings showed that, in contrast to translation-only tasks, sentence composition might greatly enhance passive and active word learning and retention. Keating (2008) looked at the impact of three different task types on retention of L2 vocabulary: sentence writing, reading comprehension alone, and reading comprehension with gap filling. The findings supported those of Laufer and Hulstijn (2001) and demonstrated that composing sentences required a greater involvement load leading to better recall of words. Teng and Zhang (2024) studied task-induced involvement load in vocabulary learning and pointed to the importance of using metacognitive strategies for vocabulary retention and recall. As is seen in the previous literature, there are many attempts to determine the students' vocabulary knowledge by examining their word, sentence, paragraph, and composition writing; however, to our best knowledge, there are

not many studies that focus solely on the effect on creative story writing on students' vocabulary knowledge. Therefore, the purpose of this study is to investigate the effect of story writing on the retention and recalling of vocabulary items that have been taught in the Reading and Writing Lessons for prep upper classes in the School of Foreign Languages at a state university and the study was designed to explore the following research questions:

- (1). Does creative story writing make an effect on EFL students' vocabulary recall?
- (2). How are the perceptions of the students related to story writing task in terms of vocabulary learning and retention?

Methodology

Research Design

In this quasi-experimental study, data were gathered using a mixed-method approach by researchers. The overarching goal and fundamental tenet of mixed methods research is that, when combined, quantitative and qualitative methods offer a superior understanding of complex events and study issues than either method alone (Creswell, 2014). Triangulating one set of findings with another can improve understanding and increase the validity of conclusions (Creswell, 2021).

The investigation is multi methodological, using vocabulary tests, stories written by the students, and reflections of them. For the quantitative part, the test and retest technique was used to determine how much of the target vocabulary had been learned. The students were asked 40 fill-in-the-blanks questions in the test and retest part and target vocabulary items were given above each group of words in a jumbled order. The questions included in the pre-test and post-test were selected from all of the 8 units of the online practice testing materials of *Q Skills for Success Reading and Writing 2* (McVeigh & Bixby, 2020).

In order not to confuse the students, the target words were not asked all at once under the same instruction. The test included 8 sections with the same instruction and each section included 5 fill-in-the-blanks questions. To prevent students from guessing, two distractors were included in each section. All the words that have been asked in the vocabulary test were taught and included in the story writing activity. The students were given the same test as the post-test following the 8-week implementation period. The fact that they will take a pre- or post-test as part of an academic study was not revealed to the students in advance. After the post-test, the students were provided a reflection paper regarding their opinions on using stories to increase vocabulary retention. Thematic analysis was conducted for the qualitative part which includes *reflection papers* of students, which will be described in the Data Tools and Data Analysis sections in detail.

Context and Participants

The study was conducted at a state university in the School of Foreign Languages in Samsun, Türkiye. The School of Foreign Languages offers students a 26-hour curriculum that consists of a main course, reading, writing, and listening-speaking classes. After taking a placement exam at the beginning of the academic year, students are allocated to either the lower intermediate or elementary proficiency level. The School of Foreign Languages provides a one-year curriculum to improve students' English language proficiency to the level required by their English-medium departments. Despite the fact that English-medium teaching is required for the academic process, some of the programs need a specified level of English proficiency. The intervention was conducted in the Reading and Writing lesson of the curriculum. The course book utilized for the course is *Q Skills for Success Reading and Writing 2* (McVeigh & Bixby, 2020) and the themes and objectives of each unit are demonstrated in Table 1:

Table 1. Contents of the *Q Skills for Success 2*

Units	Themes	Objectives
1	Marketing	- Reading the articles. Gathering information and ideas to write a descriptive paragraph about a current trend and why it is popular. Vocabulary Skill: Word Families
2	Psychology	- Reading the articles. Gathering information and ideas to write a proposal about the colors you will use for a new business. Vocabulary Skill: Suffixes
3	Social Psychology	- Reading the articles. Gathering information and ideas to write a paragraph in response to a question on an online discussion board. Vocabulary Skill: Prefixes
4	Technology	- Reading the articles. Gathering information and ideas to write an opinion paragraph about how to improve performance with technology. Vocabulary Skill: Using the dictionary
5	Business	- Reading the articles. Gathering information and ideas to write a plan for a successful family business. Vocabulary Skill: Using the dictionary
6	Brain Science	- Reading the articles. Gathering information and ideas to write a paragraph describing the steps of a process. Vocabulary Skill: Using the dictionary
7	Environmental Science	- Reading the articles. Gathering information and ideas to write an opinion paragraph about nature in a city. Vocabulary Skill: Phrasal verbs
8	Public Health	- Reading the articles. Gathering information and ideas to write an explanatory paragraph about an illness. Vocabulary Skill: Collocations

Participants in the study were at first 50 prep school students. 25 of them constituted the experimental group and 25 constituted the control group. However, only 34 of them contributed to the whole study. The participants in the experimental group were 10 female and 8 male students and the control group included 12 female and 4 male students. None of the students, whose ages varied from 17 to 25, were English majors. The students were chosen according to convenience sampling. Pseudonyms were used for all participants. School of Foreign Languages uses the Oxford Placement Exam to determine the level of students and this placement exam is based on Common European Framework of Reference for Languages (CEFR) principles. The students aforementioned have been

placed at the A2 level after the placement exam that was given at the beginning of the term.

Publication Ethics

Ondokuz Mayıs University Social Sciences Research Ethics Committee provided ethical permission for the study's conduct, with reference number 2024-74, which was approved on January 26, 2024.

Data collection tools

Creative Short Stories

Humans are creative, which distinguishes them from other species. Writing is one method of encouraging student creativity. Writing creatively is a self-discovery adventure that also encourages efficient learning, in this case, vocabulary learning. In this process, students were required to create an imaginative story incorporating the target vocabulary that had been taught earlier in class. They did not obtain any guidelines pertaining to writing stories. They composed their stories in the way they like. The only criterion was to use the vocabulary items that have been taught to them beforehand each week. The completion of the exercise also involved the accurate usage of all words.

Written Reflections

For the qualitative part, the students were required to write a reflection paper about their own process of learning vocabulary by writing a story at the end of the procedure. The reflections were used to measure the amount of vocabulary retention and individual effort students put into their vocabulary development endeavors. They also aimed to motivate them to research the best vocabulary method they discovered for themselves. In other words, because they had been exposed to a wide variety of tactics as part of the course materials, students were expected to be able to look for other vocabulary acquisition strategies if the one they had been using had failed. They were asked the following questions for reflections: (1) Did creative story writing affect your vocabulary learning and retention? If so, how? (2) Do you use any other methods to keep newly learned vocabulary in mind? The inquiries were made and the reflections were written in Turkish which is their native language in order to let students express their opinions more elaborately.

Research Process

Before the implementation phase, the participants (both the experimental and the control group) took a pre-test to assess their level of familiarity with the target vocabulary words. The intervention started in February 5, 2024 and ended March 29, 2024. During the course of the following eight weeks, both of the groups studied the aforementioned eight course book units that included the target words. Each class was taught the key vocabulary

terms in accordance with their standard practices. In this practice, the students were first presented with the meaning of the word. Later, with different controlled practice exercises such as matching and fill in the blanks exercises, they reinforced what they have learned and following this they also encountered the words in an incidental way in the reading passages of the unit they were proceeding. During 8 weeks of teaching, the experimental group students were expected to write one story creatively each week after the target vocabulary was taught in class on Mondays. They were supposed to hand in their stories on Fridays. The vocabulary items were taught by the instructor together with their parts of speech on the board. In order to make the context that the word can be used, example sentences were written by the instructor and students were expected to give example sentences to check comprehension in the teaching process. Sometimes direct translations of the target words were made to make understanding clearer. The vocabulary items were taught in context during the lesson by using reading passages, fill in the blanks questions, matching exercises and giving direct definitions, as well. The words had been chosen according to the frequency level in the British National Corpus and they were in accordance with CEFR A2 level. The students were supposed to use all the vocabulary items of the assigned week to create their stories. At the conclusion of the 8-week implementation phase, the vocabulary post-tests were given to both experimental and control group students. Table 2 below indicates some details about the sample instructional program for experimental and control groups.

Table 2. Details of Instructional Program for Experimental and Control Groups

Steps	
<i>Usual Practice for both groups</i>	
Week 1 Monday Task 1: Marketing	<ul style="list-style-type: none"> - Target words of the week which are related to marketing (consumer, contribute, express, identify, review, spread, researcher) are written on the board and asked whether there are ones that they know the meaning of. - Students copy the words to their notebooks. - The meanings of the words are given orally in English and sometimes in the students' native language to make the meaning clearer. - The parts of speeches of the words are introduced. - The students are provided example sentences to point out the usage of the words and they are also encouraged to make example sentences themselves.
Week 1 Friday	<ul style="list-style-type: none"> - Fill in the blanks questions at the beginning of each unit that also includes the target words are done by the students.
Week 2 Monday Task 2: Psychology	<p>The reading passage of the unit that provides incidental vocabulary learning for students and that also includes the target words are read by the students.</p> <p><i>Practice for the experimental group</i></p> <ul style="list-style-type: none"> - The students are informed about the objective: 'to be able to learn and remember the words taught each lesson by means of creative stories written by them. - Aforementioned Usual practice is proceeded step by step. - At the end of the lesson students are described about the content of their homework: They are going to write stories by using the words taught at the beginning of the lesson. They will decide the structure and topic of the story themselves. The stories can constitute multiple paragraphs. No word should be left out. They can use the word with a different part of speech if necessary. They are informed about the deadline to hand in their homework. - The students hand in their homework. - The students are introduced the new set of target words (success, hopeful, improve, powerful, national, truth, individual) related to psychology. The same steps are followed. The students are given their homework for the week and reminded the deadline.

Data Analysis

Quantitative data were analyzed through SPSS software. Before a statistical comparison of the two groups, a normality test was conducted to ensure that data were normally distributed and parametric tests could be utilized. Shapiro-Wilk Test was performed to determine if the data were normally distributed. The results indicated that the data did not show evidence of non-normality ($W = 0.94$, $p=0.11$ for pre-test; $W=0.96$, $p=0.35$ for post-test). Based on these findings, and after visual examination of the histogram and the Q-Q plot, we decided to use parametric tests to analyze the data. To find out the existence of the statistically significant difference between the groups in pre-and post-tests, an independent-samples t-test was conducted. As for within groups statistics in pre-, post-, and delayed tests, paired-sample t-tests were utilized.

As for the qualitative data, thematic analysis of students' reflections was utilized. As explained by Braun and Clarke (2006), thematic analysis is a flexible method for analyzing qualitative data that may be used to identify, explore, and organize recurrent patterns in data without making any assumptions about a certain theoretical or epistemological framework. According to Braun and Clarke (2006), it is crucial to first

identify the features of the data, also known as codes and categories, and then, the data may be organized into themes, which are patterns of responses pertinent to research questions, and this is how it was done in this study as well.

In order to ensure the reliability of the thematic analysis, two different experts in ELT field were consulted and asked to read the reflections so that they can become familiar with the data. They were informed about the phases of thematic analysis and supposed to create some initial codes based on the reflections. Four experts including the researchers came together and reviewed the themes. Final themes were decided on after the discussion and complete compromise.

Findings

Findings about the Effects of Creative Story Writing on EFL Students' Vocabulary Recall

The objectives of the study were to examine (1) whether creative story writing has an effect on EFL students' vocabulary recall and (2) how the perceptions of the students related to story writing tasks in terms of vocabulary learning and retention are. Regarding the first research question, in order to determine whether there was a statistically significant difference in EFL students' vocabulary recall before and after the intervention of creative story writing the independent samples t-test was applied.

Table 3. Independent Samples T-Test Results of the Pre-Test

Groups	N	Mean	SD	<i>t</i>	<i>p</i> *
Experimental	18	61.52	12.37	5.65	.000
Control	16	37.65	12.19		

* $p < 0.05$

As shown in Table 3, there is a statistically significant difference between experimental and control groups' vocabulary recall with the mean difference calculated as 23.87 before the intervention of creative story writing. This result was not expected as the two groups were accepted as homogenous in terms of language proficiency and the quality of language education they obtained. For this reason, the analysis of post-test results was of great importance in order to have an idea about the possible influence of creative story writing training in the experimental group.

Table 4. Independent Samples T-Test Results of the Post-Test

Groups	N	Mean	SD	<i>t</i>	<i>p</i> *
Experimental	18	79.30	12.65	7.78	.000
Control	16	44.06	13.75		

* $p < 0.05$

Post-test results, as indicated in Table 4, show that there is statistically significant difference between the scores of both groups after the intervention. However, the mean difference increased remarkably from 23.87 to 35.24 in the post-test. This increase can be attributed to the effects of creative story writing although the mean scores of the control

group also increases slightly in the post-test. The paired-samples t-test was also performed in order to understand the within-group differences.

Table 5. Paired-Samples T-Test Results of the Pre-and Post-Tests

Groups	Pre-Test			Post-Test			p*
	N	Mean	SD	N	Mean	SD	
Experimental	18	61.52	12.37	18	79.30	12.65	.000
Control	16	37.65	12.19	16	44.06	13.75	.008

* $P < 0.05$

In order to ensure the long term effectiveness of the treatment, the experimental group was given a delayed post-test two weeks later the post-test. As shown in Table 6, there is still a statistically significant difference between the scores of the experimental group in the post- and delayed-post tests.

Table 6. Paired-Samples T-Test Results of the Delayed Post-Test

Groups	Post-Test			Delayed Post-Test			p*
	N	Mean	SD	N	Mean	SD	
Experimental	18	79.30	12.65	18	89.16	9.66	.001

* $P < 0.05$

This finding indicates that students in the experimental group got better mean scores on the delayed test than they did in the post-test, which may be attributed to the influence of the intervention.

To sum up, the quantitative data, although both groups appear to have made some progress with regard to the target words, the experimental group seems to have made the most progress as a desired consequence of the study in both the post-test and delayed post-test conducted two months later.

Findings Regarding the Perceptions of the Students of Story Writing Tasks in Terms of Vocabulary Learning and Retention

The second research question was how the perceptions of the students are related to story writing tasks in terms of vocabulary learning and retention. Hopefully, the current study offers quantitative proof that writing stories may be a useful method for learning new vocabulary. In order to understand the perceptions of students regarding the intervention, thematic analysis of the written reflections yielded several themes as learning in context, higher involvement load, improved retention, and special reference to pragmatics from the perspectives of students.

Learning in Context

The first emerging theme in students' reflections was related to learning vocabulary in context. Many students mentioned the positive effect of inserting words into the context

they created and added that keeping the stories in mind is easier than trying to memorize the lists of decontextualized words. Related to the topic, one of the students, Ahmet, said:

Even if I did not know the word and learned it while writing the text, that word remained in my mind because I used it in the text and I made an effort to construct the text in my head before using it. Also, since I learn when using the word in context, it is easier to remember later.

Another student, Ayşe (pseudonym) referred to the effect of using words in a context from a different point of view:

Seeing the word, especially in a sentence, that is, in a whole, helped me remember the meaning of the word later. Even though I didn't remember that word at that moment, the meaning of the word started to appear in my mind as I remembered the story I wrote, that is, the topic and the course of the story.

Higher Involvement Load

The second emerging theme was related to involvement load. The students mentioned the challenge of creating and writing a story and between the lines, they referred to their increased level of engagement to the task and their involvement load. On the subject, Oya (pseudonym) noted:

Forcing my brain to use a word in context, in a sentence or even a paragraph, made the word more permanent in my mind.

This is a sentence written by another student that refers to the second recurring theme, higher involvement load, and this finding is consistent with that of Laufer and Hulstijn (2001) who proposed that the degree of task involvement affects word learning and retention in a second language. To put it in a different way, the higher the involvement of a student in a task, the better the learning outcomes will be. Mehmet (pseudonym) described the point as follows:

It [creative story writing] is definitely a more useful method than giving the Turkish equivalents of the words. If I only look at the translation of the word or if I am exposed to the word only as a viewer, like in a movie or a TV series, I forget the meaning of the word. Writing a story is a more challenging and time-consuming process than watching movies or TV series, but it is definitely more memorable and instructive.

Retention by Writing a Story

The written reflections of the students also emphasized the role of writing in word retention. Writing a story, according to many pupils, has a significant influence on remembering and has a long-lasting impact on learning. Another student, Zehra (pseudonym) stated:

Writing a paragraph with the given words required me to think more about that word. In this process, I also feel that my memory has strengthened and my writing skills have improved. Previously, I used to look at the meanings of words in the dictionary and forget them after a while and look at the dictionary again. While I was thinking about where and what to use while writing a story, I realized that the words remained in my memory automatically.

Some students also talked about the relationship between remembering words by making associations while writing stories. Hasan (pseudonym) was one of the students' whose point of view highlighted the importance of making associations:

It seems to me that there are several ways to remember things like a thought, word, phrase, etc. For example, suppose that an event related to that word occurred during the lesson. When we see that word, that event comes to our mind and we easily remember the meaning of that word. The stories we write do just that. When we write a story as an assignment, we are actually writing an event that we have lived or can experience. Since our brain encodes those words with the event we wrote, we easily remember the story first and then the word.

On pragmatics

Student reflections revealed the pragmatics and story writing relationship in vocabulary learning as another theme. Many students emphasized that when writing stories, they learned where and how the given words should be used and how the meanings changed in different contexts. The following reflection of Demet (pseudonym) exemplifies their perspectives on the topic:

Writing a story using the group of words given allowed me to see the differences in the usage and meaning of the words in the sentence. Even sentence patterns can change when words come together with other words. You can't use every word everywhere. You have to use that word in an appropriate context.

Discussion

In the study, the language learners were expected to work on the target vocabulary items forming their own imaginary stories including those target vocabulary items rather than memorize them in isolated word lists. The quantitative findings of the present study regarding the first research question on the effects of creative story writing on EFL students' vocabulary recall showed a significant difference between test and control groups in both post and delayed tests. Thus, it may be stated that a higher involvement load like creative story writing contributed positively to learners' vocabulary learning. This finding is consistent with the previous research by Baicheng's (2009), which investigates the usefulness of employing example sentences in vocabulary presentation and learning activities, in that, the results of the long-term memory tests of Baicheng's study also show that the learners' vocabulary learning and retention performance is the highest when they form their own sentences instead of being provided with the example sentences by the teacher or not using any example sentences. The results of the present study also reflect similarity with that of Zou (2017) who also found that among the three writing activities - closed exercises, sentence-writing, and composition-writing- the latter two were found to much more effectively promote learning vocabulary than the cloze exercises, and these results were somewhat consistent with the involvement load hypothesis. However, despite having an identical load applied to them, the effectiveness of writing sentences and creating compositions revealed statistically significant differences, which was the opposite of the outcomes expected by the hypothesis. In accordance with the present results, Rassaei's (2017) study also demonstrated that among the three activities that students engaged in, speculating about what would happen next after reading a book i.e. writing an

imaginary end for the text, was the most successful. Additionally, the questioning/answering condition turned out to be the second most successful output condition after prediction.

However, in some other contrary studies, conflicting results showed up about the effectiveness of writing example sentences or imaginary stories. For instance, the findings of the present study are not in line with Jafari et al.'s (2018) study in which out of the four groups (creative sentence writing > imaginary story writing > summary writing > sentence writing), the one that formed creative sentences did better. The groups that created imaginary stories, summaries, and sentences placed second, third, and fourth, respectively. The reason for this may be that creative sentence writing requires less time and is easier to remember thanks to its length compared to creative story writing which in turn may have an effect on recall. The outcome of the present study is contrary to that of Hu and Nassaji (2016) who examined the effectiveness of reading plus fill in the blanks vs. reading a text and rewording the sentences and found that the task that received the highest score—reading in combination with fill-in-the-blank—led to greater task performance than other tasks (sentence rewriting, for example). This difference might have resulted from the fact that the exercise required more time and required the participants to concentrate on the original phrases that contained the target terms. Barcroft (2006) also argued that forcing students to use new words in sentences has a significant negative impact on their ability to be productive. The results of his study contradict with the present study in that the quantitative results of this study indicate that using new words in writing increased students learning and recall compared to those who were not required to do the writing activity, and reflection papers of the students also supported the finding in that many students referred creative writing task as an enjoyable activity rather than a forced one.

Regarding the second research question, which is about the perceptions of the students related to story writing tasks in terms of vocabulary learning and retention, four themes emerged. The findings from the first emerging theme *Learning in Context* indicate that inferring a meaning by taking the context into account is a strategy the students use in their language learning experiences and they are also aware of the importance of context in preserving the word's meaning in memory. What is surprising is that the students in the study mention the significance of context in vocabulary learning regarding writing skills. They underlined that applying target vocabulary in a context they created helped them remember better. These results corroborate the findings of a great deal of the previous work on lexical inferencing, one of several word-learning techniques that has been discovered to be the strategy L2 students employ most frequently. Haastrup (1991, p.40) notes that it is a process that "involves making informed guesses as to the meaning of an utterance in light of all available linguistic cues in combination with the learner's general knowledge of the world, her awareness of context and her relevant linguistic knowledge". By looking at their reflections, it seems that taking advantage of the context they created helped the students both learn and recall vocabulary.

For the second theme, *Higher Involvement Load*, it can be pointed out that there are similarities between the attitudes expressed by the students in this study and those described by Tahmasbi and Farvardin (2017) who found in their study that when compared

to other tasks like control, translation, fill in the gaps, combining, and sentence writing, writing a whole paragraph was the most efficient way to learn new vocabulary. What makes this study different from Tahmasbi and Farvardin (2017) is that students composed a story with multiple paragraphs which increased their involvement load one step further. The interpretations of the students support the idea that this challenge helped the students immerse in the vocabulary items effectively.

Vocabulary learning strategies are frequently categorized under the incidental-intentional dichotomy (Laufer, 2003). What students mentioned regarding the third theme, *Retention by Writing a Story*, is mostly related to intentional vocabulary learning and its direct effect on word retention. The findings of this study from this perspective are consistent with previous findings of Webb (2005) who found that on a test of quick meaning-recall, students who composed sentences with new words improved by 88%. Similarly, according to Javanbakht (2011), putting words in sentences improved meaning-recall scores by 84%. The authors stress that type of the activity is a determining factor in word gain and an intentional activity like writing compositions increases the chances of vocabulary learning compared to encountering them while reading which is also consistent with the findings of this study.

The connection between the written task and *Pragmatics*, the last emerging theme, was an unanticipated finding in that many previous studies focused on the number of words recalled based on the activities that required higher involvement like writing (see Barcroft, 2006; Barcroft, 2007; Jin & Webb, 2021), however, this theme showed that such kind of activity can also be effective in teaching pragmatics, more specifically, it can be said that students also learn how to communicate in a second language via writing. Their linguistic and communicative context awareness may be increased thanks to the contexts provided by writing tasks.

Conclusion

The current study examined the increase in the vocabulary retention of EFL students by incorporating new words into writing exercises. The results and findings of the study have identified that generally speaking, an upward trend was seen in students' vocabulary learning and recall. These positive effects can be attributed to the fact that creative story writing increases the involvement load on the part of the students. From a pedagogical aspect, these findings add to our knowledge of how writing in L2 classrooms affects vocabulary learning and can help L2 instructors employ creative story writing to help students remember vocabulary.

Implications

The findings of this study yielded some insightful and useful information related to effective vocabulary learning and have some practical implications for ELT and ESL learners, teachers, and course book writers. Based on the findings, it is clear that writing words in a context like a story has a positive effect on learning; thus, language teachers should reconsider the habit of having students write down words in order to make students recall them. Together with receptive, productive vocabulary learning may be encouraged in that productive vocabulary learning reinforces meaningful output making the students

both aware of the correct usage of the words and helping them for recalling of the words. To increase the students' involvement load and to contribute to their word retention more, requiring the students to write longer texts seems to be a fruitful method. It contributes to students' language learning in a multi-dimensional way in that while constructing their sentences they revise how and where to use a vocabulary item, whether it is the correct part of speech, and whether it is suitable to use it in that context in terms of the pragmatic aspect. If time limitations in class could be thought to create a problem, writing could be applied as homework or extramural activity.

For the students, it can be guessed that rather than writing words in decontextualized lists and trying to rote learn them, writing words in contexts increases their chances of remembering them. Extra-curricular activities in the form of writing can be encouraged. Thus, the students can keep journals, write their reflections about daily events, keep diaries, or even write poems by using the words they learned in class.

Finally, for the course book writers, the number of activities in course books that require students to write creatively may be increased. Adding such activities to the end of each unit, for instance, can provide cyclical learning and increase the chances of revising and practicing what has been learned.

This study has several limitations that must be admitted. First, sampling may be small for generalization; thus, the scope of future work can be expanded. Second, the students in the upper group were subjected to the study. This does not imply that a lower group will have the same outcome. Therefore, future studies should also be conducted with a lower group of students. Finally, this study made an attempt to determine the effect of story writing on recall but neglected to look at other influential aspects, such as whether or not students already knew the word or encountered it elsewhere in the Reading and Writing course. Further research is needed to examine additional influencing factors in the retention of L2 vocabulary.

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