

## **The Effects of Vocabulary Notebook Keeping under Teacher Supervision on Vocabulary Acquisition among Low-Proficiency EFL Learners**

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This study explores the effects of vocabulary notebook keeping under teacher supervision on low-proficiency Korean EFL learners. The participants were randomly divided into three groups: those who received teacher feedback and had their teacher monitor their notebook use; those who only had their teacher monitor their notebook use; and those who used their notebooks without any teacher intervention. Participants studied the target words for five weeks, and results showed that the group that received both teacher feedback and monitoring outperformed the other two groups in the post-test involving target vocabulary. This difference remained even after two weeks following the post-test. The superior group was also found to have a more positive attitude toward vocabulary notebook keeping and was more willing to continue keeping a notebook than the other two groups. These findings point to the important role teachers play in actualizing the full potential of vocabulary notebook keeping.

**Keywords:** learner autonomy; teacher supervision; vocabulary acquisition; vocabulary learning strategies; vocabulary notebooks

### **Introduction**

The importance of expanding one's vocabulary when learning another language has been noted by some researchers (Laufer, 1997; McCarthy, 1990; Nation, 2013; Schmitt & Schmitt, 1995). The widely accepted view that vocabulary is an integral aspect of second language (L2) competence has resulted in a large number of studies on vocabulary learning strategies (VLS) (e.g., Fan, 2003; Gu & Johnson, 1996; Schmitt, 1997; Zhang & Lu, 2015), addressing how they contribute to successful L2 vocabulary learning. Using a vocabulary notebook, defined as "any form of notebook used for recording new and useful vocabulary and some additional information about the word" (McCrostie, 2007, p. 247), is one such strategy (Schmitt, 1997). It is also one of the universally adopted VLS among L2 learners (Alhatmi, 2019), engaging them in intentional vocabulary learning (Hulstijn, 2001).

Previous research on vocabulary notebooks in the field of L2 teaching and learning (e.g., Dennison, 2014; Fowle, 2002; McCrostie, 2007; Schmitt & Schmitt, 1995) has revealed that keeping vocabulary notebooks has several merits for L2 vocabulary learning, and learners also perceive such notebooks as useful learning resources, pointing to their pedagogical value in vocabulary learning. However, there has been only a small number of studies (e.g., Uzun, 2013; Vela & Rushidi, 2016; Walters & Bozkurt, 2009) that examined the effects of notebook keeping on the acquisition of L2 vocabulary. Little research has examined the role of teacher in the implementation of keeping notebooks in particular. Thus, the current body of research on this issue has not been able to provide

detailed pedagogical implications for the implementation of vocabulary notebooks under teacher supervision.

To address such a gap in the literature, the present study aimed to examine whether teacher feedback and monitoring would enhance English vocabulary learning of Korean secondary-level students when notebook keeping was implemented in their regular English lessons. To this end, the target students were grouped as follows: those who received teacher feedback and had their teacher monitor their notebook use; those who only had their teacher monitor their notebook use; and those who used their notebooks without any teacher intervention. This experimental design enabled us to examine the effects of varying degrees of teacher supervision (i.e., from none to monitoring only, and monitoring along with feedback), and provide more detailed suggestions on the implementation of vocabulary notebooks than previous studies (e.g., Vela & Rushidi, 2016; Walters & Bozkurt, 2009). The findings of the present study with Korean EFL learners are expected to expand our knowledge about the effectiveness of vocabulary notebook keeping, along with the previous ones in the Asia-Pacific region (e.g., Fowle, 2002; McCrostie, 2007) and beyond (e.g., Dubiner, 2017; Uzun, 2013; Walters & Bozkurt, 2009).

## **Literature Review**

### ***Theoretical and Pedagogical Grounds for Keeping Vocabulary Notebooks***

This section reviews how vocabulary notebooks have been recommended on theoretical and practical grounds in the field of L2 teaching and learning. First, using vocabulary notebooks is largely oriented toward intentional vocabulary learning (Hulstijn, 2001), which can lead to significant gains in L2 vocabulary acquisition (see Webb, Yanagisawa, & Uchihara, 2020 for a meta-analysis of the effectiveness of intentional vocabulary learning). As incidental vocabulary learning alone cannot guarantee the acquisition of the required L2 vocabulary (Schmitt, 2008), the intentional approach through notebook keeping may allow learners to compensate for the former's limitation. It should also be noted that the acquisition of "meaning" involves some degree of "explicit" learning processes (Ellis, 1995), which the intentional approach facilitates better.

Second, keeping a vocabulary notebook is theoretically supported by the Involvement Load Hypothesis (Hulstijn & Laufer, 2001; Laufer & Hulstijn, 2001), which has its theoretical base in the Depth of Processing Hypothesis in memory-related research literature ( Craik & Lockhart, 1972; Craik & Tulving, 1975). The Involvement Load Hypothesis is a theoretical framework of L2 vocabulary acquisition, which predicts that a certain vocabulary learning task loaded with more motivational-cognitive involvement would lead to more vocabulary gains than those with less involvement. Keeping a vocabulary notebook has been seen as having higher involvement load than traditional vocabulary activities (Dennison, 2014), and the findings of previous studies (e.g., Vela & Rushidi, 2016; Walters & Bozkurt, 2009) lend empirical support to this.

Third, keeping a vocabulary notebook, while being a type of VLS itself (as a cognitive strategy in a taxonomy of VLS in Schmitt, 1997), could prompt learners to use and adopt a wide range of such learning strategies (Fowle, 2002). For example, recording the form of the target word in the notebook could allow learners to analyze and remember its part of speech or affixes, and study that word (i.e., memory strategies). Furthermore, keeping a vocabulary notebook could stimulate the development of metacognitive strategy, which refers to an overview of one's learning progress and uses of learning resources. Also, keeping notebooks could promote learners' use of social strategies, by enabling them to

discuss the recorded words in their notebooks with a teacher or peers. Therefore, keeping a vocabulary notebook is not just one type of VLS but may expand one's learning strategies in general, which in turn could enhance learner autonomy and independence (Fowle, 2002; McCarthy, 1990; Schmitt & Schmitt, 1995). Regarding learner autonomy, Dennison (2014) suggested that keeping vocabulary notebooks “develops self-management skills since learners are able to independently choose what words are included” and learners are “involved in the planning and organization of how entries are made” (p. 56).

Last, vocabulary notebooks “are not dependent on high technology or expensive resources” (Fowle, 2002, p. 387) and thus can be implemented in a wide range of pedagogical contexts. This means that recommendations, tips, lesson activities involving keeping a vocabulary notebook (e.g., Dennison, 2014; Schmitt & Schmitt, 1995) could have far-reaching implications across different pedagogical contexts.

### ***Studies on English Learners' Vocabulary Notebook Keeping***

In this section, we review previous studies that examined English learners' vocabulary notebook keeping. First, in the context of secondary school-level language programmes in Thailand, Fowle (2002) found that his participants perceived vocabulary notebooks to be useful for their vocabulary learning. McCrostie (2007), in collaboration with first-year undergraduate EFL students in Japan, closely examined the entries in learners' vocabulary notebooks. The study revealed that the participants drew heavily from textbooks, where they found English words that they could include in their notebooks, and that nouns and verbs were the major parts of speech in their collection. More recently, Dubiner's (2017) mixed-method study of the use of vocabulary notebooks showed that Israeli pre-service English teachers were not only able to expand their vocabulary, but also to perceive its effectiveness as a future pedagogical tool.

Some studies on vocabulary notebook have adopted an experimental design, along with a questionnaire, to compare the effects of notebook keeping with the effects of not doing so — Walters and Bozkurt (2009) conducted an experimental study involving Turkish EFL learners at a language preparatory school. This study included one treatment group and two control groups; the former studied target English words using vocabulary notebooks, while the latter were exposed to the same set of words through a traditional curriculum. After a month-long implementation of both notebook keeping and the traditional curriculum, the treatment group was found to have made more vocabulary gains than the control groups. In the follow-up questionnaire, a large proportion of the participants showed reluctance to keep the vocabulary notebooks when the teacher would not implement it in the course.

Vela and Rushidi (2016) adopted a similar research design as Walters and Bozkurt (2009). The authors recruited non-English major undergraduate students at the language center of a Macedonia university and randomly assigned them to one treatment group equipped with vocabulary notebooks and two control groups. All three were exposed to the same curriculum, but the treatment group participants were asked to keep vocabulary notebooks for 10 weeks to learn the target words. The results revealed that they performed better in the post-test of the target words, while the questionnaire results showed that only 15 percent of them intended to keep the vocabulary notebook in the future, when its continuation was not part of the course requirements.

Uzun (2013) aimed to examine whether teacher feedback on keeping a vocabulary notebook would make any difference in the vocabulary acquisition of Turkish EFL learners. In this study, participants were divided into: (1) the treatment group that was asked to keep the notebook and received some instruction and feedback on it; (2) the

treatment group that was asked to keep the notebook but did not receive any instruction or feedback; and (3) the control group that did not keep the notebook. The results showed that regular teacher feedback on and encouragement of learners' notebook keeping led to the largest vocabulary gains, thus pointing to the "need for systematic and regular control and feedback by teachers" in implementing vocabulary notebook keeping (p. 8). Unfortunately, the author did not report the inferential statistics values of the vocabulary test score results. Additionally, it remains unexplored if it was teacher feedback on the recorded words or monitoring of the learners' notebook keeping that contributed to the largest vocabulary gains.

The review of relevant literature highlights some research gaps. First, the previous studies have not addressed enough high school students' vocabulary learning through notebook keeping. Second, while regular teacher monitoring of and feedback on vocabulary notebook keeping has been proposed as an important factor in the success of this technique (McCrostie, 2007; Uzun, 2013), this variable has not been examined in detail in previous studies, and requires further investigation. The present study aims to address these gaps, and adopts a more comprehensive approach to examining this issue by triangulating experimental findings, survey and interviews.

The present study puts forward the following two research questions to address this issue:

1. Which of the following three conditions is the most effective means by which Korean high-school EFL learners can acquire new English vocabulary: teacher feedback on and monitoring of learners' vocabulary notebook keeping; teachers monitoring learners' vocabulary notebook keeping (but no feedback); and control (learners keeping vocabulary notebooks without teacher intervention)?
2. What are the perceptions of each group, categorized under these conditions, regarding English learning and vocabulary notebook keeping prior to and after the implementation of the exercise?

## **Methods**

The present study used a subset of data from the first author's master's thesis (Jang, 2019), which adopted a quasi-experiment design.

### ***Participants and Context***

The participants of this study were freshmen (aged 16 or 17) enrolled in a specialized high school oriented toward vocational education in Seoul, Republic of Korea. Most students in this school were in the 80th percentile of their population in terms of scholastic ability. They were also poorly motivated to learn English and had low levels of English proficiency. They were given English lessons three times a week, with the overall curriculum geared toward reading, grammar, and vocabulary. These learners were judged to benefit greatly from intentional vocabulary acquisition through notebook keeping, as they had a small vocabulary size, which had severely impeded their reading comprehension – the most important English skill to be developed for high school students in this context.

The first author of this study was an English teacher in this school, and in charge of teaching the language to six freshmen classes. These classes were similar in terms of number, gender distribution, and English proficiency level. Out of these six, three classes were selected randomly for this study, with 80 students participating.

### ***Implementation of Vocabulary Notebooks***

This section describes how vocabulary notebook keeping was implemented in the target context, and how the three groups (*Teacher monitoring and feedback*, *Teacher monitoring only*, and *Notebook only*) received different treatments in this exercise.

In the first week of the study, after a set of instruments was administered to the participants (see Instruments for details), the teacher presented them with the target vocabulary, some of which was chosen from the upcoming chapters in their English textbooks and the rest selected by the first author. Of the 50 target words, 15 appeared in the list of 1,000 most frequently used words (e.g., “adventure” and “demand”) and 13 in the list of 2,000 most frequently used words (e.g., “explore” and “entire”). The target word list also included 10 from the Academic Word List (e.g., “constant” and “quote”), nine low-frequency words (e.g., “ingredient” and “inspire”), and three multi-lexical terms (e.g., “on one’s own” and “show off”). The participants were asked to record the target words as well as any other vocabulary items they found either useful or difficult in their notebooks over the next five weeks, and then submit their notebooks. They were instructed on the types of lexical information (e.g., pronunciation, collocation, derivatives) regarding the target words that they could include, and encouraged to record as much information as possible. They were also told that their notebooks would be collected, and checked in terms of whether the participants recorded all the target words.

The *Teacher monitoring and feedback* group participants (n = 26) had individual sessions with the teacher once a week, and the teacher monitored their vocabulary notebook keeping during this period. They were also given feedback on the target vocabulary and any other words included in their notebooks in terms of pronunciation, spelling, and collocation. For example, the teacher gave instruction regarding how to pronounce ‘th’ (voiceless interdental fricative sound; θ) as in ‘throughout’ or the connotation attached to the multi-lexical item ‘show off’. The teacher and participants did not go over all the words in their notebooks; the teacher either selected some words he wanted to discuss with a participant, or allowed him/her to ask vocabulary-specific questions. Each individual session lasted between 5 and 10 minutes. The *Teacher monitoring only* group participants (n = 28) also had individual sessions with the teacher each week. The teacher monitored their vocabulary notebook keeping but did not give any feedback. Each session for this group lasted fewer than three minutes on average. The *Notebook only* group participants (n = 26) did not have individual sessions with the teacher; instead, they were asked to record and study target words and other English vocabulary on their own.

At the end of five weeks, the first author collected the notebooks to ensure that all the target words were recorded. All participants recorded the 50 target words.

### ***Instruments***

As a measure of the homogeneity of the three groups prior to the intervention, a vocabulary size test (VST) (Nation & Beglar, 2007) was administered to the participants. The VST is designed to measure receptive vocabulary knowledge, and consists of 14 different sections, each related to the 1,000 word-family level. Considering the participants’ low levels of English proficiency, they were tested only on the first three levels, with one point awarded for each correct answer.

To investigate the gains in their knowledge of the target vocabulary, vocabulary recall tests were given three times during the exercise: prior to the intervention (pre-test), immediately after the five weeks (post-test), and two weeks after the post-test (delayed post-test). In the vocabulary tests of the target vocabulary, the participants were asked to give the meaning of each target word in either Korean or English. While the same target

vocabulary list was used in all three tests, the words on the list were reshuffled to reduce the practice effect. One point was given for each correct answer.

The questionnaire was designed to examine student perceptions of the process of learning English and using vocabulary notebooks. To analyze the former, the study adapted a subset of items from the Foreign Language Enjoyment questionnaire (Dewaele & MacIntyre, 2014), whereas Fowle's (2002) survey was consulted for the latter. The questionnaire items were all based on a five-point Likert scale.

In addition to the questionnaire, interview questions were developed to glean more in-depth responses from a subset of the participants. These questions included "What are the advantages and disadvantages of keeping a vocabulary notebook for your English vocabulary learning?" and "What did you think about the teacher's engagement in your notebook keeping? (for *Teacher monitoring and feedback* and *Teacher monitoring only* groups)"

### **Data Collection**

At the beginning of the study, students from the three classes were randomly divided into the three groups. They were then given the VST, pre-test of target vocabulary, and first questionnaire. Each group studied the target vocabulary for five weeks as stipulated by their group type. At the end of the fifth week, the participants were given the post-test without prior notice. Two weeks after that, once again without any notification, they were given both the delayed post-test and second questionnaire. After the latter, the participants were asked to volunteer for the interview to talk about their perception of keeping the vocabulary notebooks. Among the volunteers, the first author randomly selected three volunteers from each group. Each interview was conducted in the school cafeteria and lasted between 5 and 10 minutes.

After the data collection was completed, the participants in the *Teacher monitoring only* group and *Notebook only* group (i.e., who did not receive linguistic feedback from the teacher during the study) were encouraged to sign up for the individual feedback session regarding their notebooks, and were given the session by the first author, accordingly.

### **Data Analysis**

For the first research question on the relative effects of the three conditions under investigation, the following statistical procedures were adopted. First, to use parametric tests, the assumptions of normality and homogeneity of variances were checked. Second, to test the homogeneity of the three groups prior to the intervention, their scores of the VST and pre-test were compared using analysis of variance (ANOVA). Third, to statistically compare their scores of the post-test and delayed post-test, analysis of covariance (ANCOVA) was performed, with the conditions as a between-group variable and pre-test data as a covariate. As we had two dependent variables (post-test and delayed post-test), two statistical ANCOVA models were utilized, respectively. SPSS 24.0 (IBM Corp, 2016) was used for the aforementioned statistical analysis.

For the second research question, the questionnaire data were analyzed descriptively, and the findings presented according to each group's mean responses to the items. The participants' responses from the interviews were transcribed and translated into English by the first author.

## **Results**

### **Statistical Assumptions**

As stated in *Data Analysis*, our data were first checked for assumptions of normality and homogeneity of variances. The Kolmogorov-Smirnov (K-S) test was conducted to gauge the normal distribution of the data. Its results showed that our data did not significantly deviate from normal, except for the *Notebook only* group in the pre-test,  $D(26) = 0.20$ ,  $p < .01$ . Levene's test was conducted to assess the homogeneity of variances; its results were not significant ( $F(2,77) = 0.67$ ,  $p > .05$  for the VST,  $F(2,77) = 0.83$ ,  $p > .05$  for the pre-test,  $F(2,77) = 1.07$ ,  $p > .05$  for the post-test, and  $F(2,77) = 1.06$ ,  $p > .05$  for the delayed post-test), indicating that the variances were not significantly different among the three groups. Thus, these statistics suggested that parametric tests were suitable for our data.

### ***Vocabulary Gains***

The three groups' mean scores of the VST and target vocabulary tests at three different points in time are presented in Table 1. Their scores were further compared using ANOVA, results of which showed that there was no significant difference among the three groups' scores of the VST ( $F(2,77) = 3.03$ ,  $p > .05$ ) and pre-test ( $F(2,77) = 1.54$ ,  $p > .05$ ). These results indicate that the three groups were more or less homogenous in terms of their vocabulary size and knowledge of the target vocabulary. Although there was no significant difference in their target vocabulary scores prior to the intervention, ANCOVA was used in subsequent analyses to more accurately measure the effects of different learning conditions (Field, 2013), by controlling for the participants' pre-test scores.

Table 1. Descriptive statistics of the vocabulary tests

Test name	Group	Mean	Standard deviation	Standard error
Vocabulary size test	Teacher monitoring and feedback	12.46	4.35	.85
	Teacher monitoring only	10.93	4.12	.78
	Notebook only	9.69	3.70	.73
Pre-test	Teacher monitoring and feedback	8.27	6.47	1.27
	Teacher monitoring only	6.50	5.82	1.10
	Notebook only	5.42	5.39	1.06
Post-test	Teacher monitoring and feedback	27.38	8.48	1.66
	Teacher monitoring only	15.50	9.87	1.87
	Notebook only	14.19	9.70	1.90
Delayed post-test	Teacher monitoring and feedback	26.27	8.33	1.63
	Teacher monitoring only	14.18	9.49	1.79
	Notebook only	10.73	8.20	1.61

The ANCOVA results, with the post-test score as the dependent variable, revealed that the covariate (the pre-test score) was significantly related to the post-test score,  $F(1, 76) = 56.35, p < .001, \eta_p^2 = .43$ . More importantly, the conditions had a significant impact on the post-test score,  $F(2, 76) = 17.05, p < .001, \eta_p^2 = .31$ , with a large effect size. The results of pairwise comparisons (Bonferroni test) further revealed that the *Teacher monitoring and feedback* group significantly outperformed the other two (whose scores were not substantially different from each other).

The results of another ANCOVA, with the delayed post-test score as the dependent variable, were similar to that of the post-test, with both the pre-test score and conditions being significant ( $F(1, 76) = 60.96, p < .001, \eta_p^2 = .45$  for the pre-test and  $F(2, 76) = 27.06, p < .001, \eta_p^2 = .42$  for the conditions). Again, the result of pairwise comparisons revealed that the mean score of the *Teacher monitoring and feedback* group was significantly higher than those of the other two, whose scores on the delayed post-test were not substantially different.

Figure 1 displays the patterns of learning the target vocabulary among the three groups — as can be seen in it, the *Teacher monitoring and feedback* group performed better in the post- and delayed post-tests than the other two.

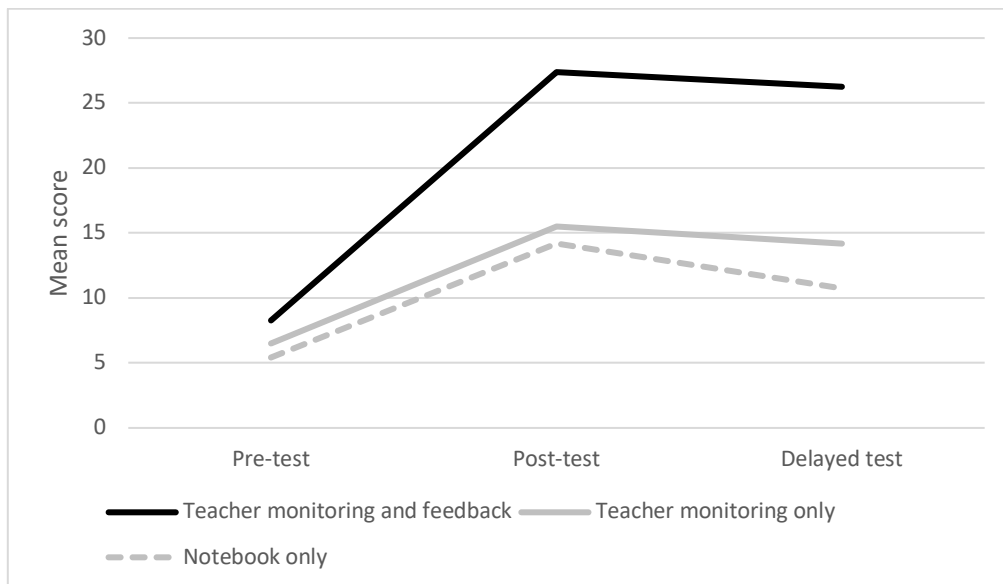


Figure 1. The three groups' mean scores on the vocabulary test at three different points in time

### Questionnaires and Interviews

Findings related to the most relevant questionnaire items are presented in this section. Table 2 summarizes the three groups' responses to the items pertaining to student perceptions of learning English as well as vocabulary notebooks prior to using them.

Table 2. Participants' responses to the items in the first questionnaire completed before using vocabulary notebooks

Questionnaire item	Group	Mean (SD)
I enjoy English class.	Teacher monitoring and feedback	2.73 (.67)
	Teacher monitoring only	3.14 (.71)



I feel proud of my accomplishments in English class.	Notebook only	3.23 (.71)
	Teacher monitoring and feedback	2.88 (.43)
	Teacher monitoring only	2.89 (.74)
I believe keeping a vocabulary notebook will enhance my vocabulary knowledge.	Notebook only	3.08 (.80)
	Teacher monitoring and feedback	2.88 (.82)
	Teacher monitoring only	2.79 (.99)
	Notebook only	2.62 (.82)

Note: *SD* = standard deviation

As can be seen in Table 2, the three groups had neutral or slightly negative responses toward the first questionnaire items. They also had similar responses to items relating to perceptions of learning English and using vocabulary notebooks.

Table 3. *Participants' responses to the items in the second questionnaire completed after using vocabulary notebooks*

Questionnaire item	Group	Mean (SD)
I enjoy English class.	Teacher monitoring and feedback	4.23 (.82)
	Teacher monitoring only	3.64 (.78)
	Notebook only	3.58 (.81)
I feel proud of my accomplishments in English class.	Teacher monitoring and feedback	4.08 (.85)
	Teacher monitoring only	3.54 (.74)
	Notebook only	3.42 (.99)
The vocabulary notebook has been useful in learning English.	Teacher monitoring and feedback	4.46 (.81)
	Teacher monitoring only	3.93 (.81)
	Notebook only	3.62 (.85)
I am willing to keep using the vocabulary notebook.	Teacher monitoring and feedback	4.38 (.85)
	Teacher monitoring only	3.79 (.92)
	Notebook only	3.69 (.88)

Note: *SD* = standard deviation

Table 3 lists the responses to the second questionnaire, showing an increase in the level of participant enjoyment of English class and participants' pride in their English language accomplishments after five weeks of using vocabulary notebooks. However, unlike the results of the first questionnaire, some group differences were observed: the *Teacher monitoring and feedback* group responded with greater positivity to these items than the other two.

Regarding their perceptions of vocabulary notebooks, the *Teacher monitoring and feedback* group again responded with greater positivity to questions about the usefulness of vocabulary notebooks and the willingness to continue keeping them even after the study, than the other two.

According to the interview findings, the participants pointed out the advantages of keeping a vocabulary notebook as follows:

Reviewing the difficult words over and over through the notebook appears to help me remember them for a long time. (Interviewee #1 in the *Teacher monitoring and feedback* group)  
It was good to see what I have been studying visually [in the vocabulary notebook] ... I feel proud of that. (Interviewee #1 in the *Teacher monitoring only* group)

While vocabulary notebooks were considered an effective vocabulary learning resource by the participants, keeping up the exercise was seen as uninteresting and burdensome:

I liked the fact that I learned something ... but it was burdensome. (Interviewee #1 in the *Teacher monitoring and feedback* group)  
I think it is effective, but somewhat boring too. (Interviewee #2 in the *Notebook only* group)  
It was boring to keep seeing the same word many times. (Interviewee #1 in the *Teacher monitoring only* group)

However, it was also found that teacher engagement appeared to help the *Teacher monitoring only* group participants stay motivated to keep using the vocabulary notebook. The interviewees commented on this as follows:

Sometimes I didn't want to use the notebook ... but I kept working hard, as the teacher regularly checked my notebook keeping. (Interviewee #2 in the *Teacher monitoring only* group)  
Maybe I would have just given up if I had to do it on my own. (Interviewee #3 in the *Teacher monitoring only* group)

Finally, the interviewees from the *Teacher monitoring and feedback* group spoke about the role of their teacher in the individual sessions as follows:

I found the teacher's feedback on what I had recorded incorrectly [in the vocabulary notebook] quite useful. (Interviewee #2 in the *Teacher monitoring and feedback* group)  
There were some English words that I did not understand clearly, but the teacher's explanation about them helped ... I also appreciate the teacher for instructing me on how to pronounce some of the words I had recorded. (Interviewee #3 in the *Teacher monitoring and feedback* group)

To summarize, keeping vocabulary notebooks was perceived positively by the participants in terms of its effectiveness for learning new English vocabulary, although some considered it uninteresting and laborious. The participants who had individual sessions with the teacher further pointed to his important role in the course of keeping a vocabulary notebook, suggesting that his regular monitoring helped them continue to keep the notebook when their motivation for doing so diminished, and gave them useful linguistic feedback (in the case of the *Teacher monitoring and feedback* group).

## Discussion

The results regarding the first research question revealed that the *Teacher monitoring and feedback* group's scores were almost twice as high as those of the other two after the exercise was completed, and that this difference persisted two weeks after the post-test. Given the interval between the post-test and delayed post-test, and the miniscule drop in score (about one word), it can be said that these participants retained more than half the target vocabulary in their long-term memory. Although the *Teacher monitoring only* group learned fewer target words than the *Teacher monitoring and feedback* group, it is noteworthy that the former, just like the latter, only forgot one word in the interim between the post-test and delayed post-test. These findings accord with those of Uzun (2013), which also noted the extent to which the group that received feedback or instruction benefited more over the groups that did not. Yet, the present study takes this finding one step further, suggesting that receiving feedback as well as being monitored results in significantly greater gains in the target vocabulary than monitoring alone—an important pedagogical implication.

The superior performance of the *Teacher monitoring and feedback* group can be partly explained in terms of the additional exposure its participants received to the target vocabulary in their individual student-teacher sessions, as evident in the interview responses. These moments with the teacher appear to have consolidated their acquisition of the target words. The *Teacher monitoring only* group, despite having regular contact with the teacher, was deprived of teacher feedback and the opportunity to review the target vocabulary. Therefore, our finding regarding the superiority of teacher monitoring and feedback lends support to the argument that the teacher needs to engage in the implementation of the vocabulary notebook keeping to actualize its full potential (McCrostie, 2007; Schmitt & Schmitt, 1995; Uzun, 2013).

The results regarding the second research question revealed that the participants became more positive about their English learning over the five weeks of using a vocabulary notebook. As found in the questionnaire and interview responses, participants also perceived the value of keeping a vocabulary notebook positively, although some disadvantages (e.g., uninteresting and burdensome) were also mentioned. Among the three, the *Teacher monitoring and feedback* group grew even more positive than the other two about the value of keeping a vocabulary notebook. In particular, it should be noted that more than 80 percent of the participants in this group responded positively to a questionnaire item regarding their willingness to keep using vocabulary notebooks on their own, whereas the other groups gave rather lukewarm responses to this item, which mirrors the findings of previous studies (e.g., Vela & Rushidi, 2016; Walters & Bozkurt, 2009). Thus, the development of learner autonomy through vocabulary notebook keeping (Fowle, 2002; Schmitt & Schmitt, 1995) was only found in the *Teacher monitoring and feedback* group.

There are, however, some limitations in the present study. First, the study did not include the control condition in which learners do not keep vocabulary notebooks, as it was not practically possible to do so in our pedagogical context. We believe that our groups would have shown better vocabulary gains than such a group, had it existed, based on the results of the previous experimental studies (e.g., Vela & Rushidi, 2016; Walters & Bozkurt, 2009). However, we acknowledge that having a control group of this kind would have enabled us to measure the effects of teacher supervision on the learning of the target vocabulary more accurately. Second, the implementation of vocabulary notebook keeping was rather short (five weeks). Future research with a longer implementation period complemented by teacher supervision is needed to reveal the

advantages and disadvantages of vocabulary notebook keeping in the long term. Third, the vocabulary test of the present study was the meaning-recall type. Thus, the effects of keeping notebooks on the acquisition of other aspects of vocabulary knowledge remain unexplored, which can be further investigated in future research.

## Conclusion

The present study set out to examine the effects of teacher supervision on EFL learners' vocabulary acquisition through notebook keeping. Overall, the learners who received teacher feedback and had their teacher monitor their notebook use outperformed the other groups, and also developed some level of learner autonomy. This finding suggests that vocabulary notebook keeping, which has been believed to be largely learner-centered, may require teacher intervention, especially when the target students are poorly motivated and have low proficiency levels. We believe that this finding has far-reaching implications for learners in similar pedagogical contexts, and suggest that vocabulary notebooks be incorporated into the curriculum of these contexts as a medium for learners to record the target vocabulary from their textbook as well as other unfamiliar ones that crop up in diverse classroom activities. In doing so, the teacher may ask his or her students to bring their vocabulary notebooks along with the textbook in L2 lessons all the time, and check their notebook keeping weekly or monthly, which may be followed by short individual sessions to maximize the effectiveness of notebook keeping. Any future attempts to explore the effectiveness of vocabulary notebooks, including a longitudinal study (a semester- or year-long project) on learners' use of them and an experimental study with the same goal as this one but with a different learner population, would enrich our understanding of the value of vocabulary notebooks as useful pedagogical tools.

## About the authors

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