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Effects of Explicit Language Instruction on Students' Vocabulary Retention and Reading Comprehension Skills

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Abstract

The study investigated the effects of explicit vocabulary instruction on students' vocabulary retention, and on their reading comprehension in 11th grade at Shinta Preparatory School, Gondar. The study was a quasi-experimental in design. Out of the five sections, two sections (11th C= and 11th E=: a total of 93 students) were randomly selected. Explicit instruction was used for the experimental group whereas conventional methods were used for the control group. In addition, vocabulary retention and reading comprehension tests were used to collect data. Accordingly, the results of the independent sample t-test showed that there was a statistically significant difference between the experimental, and the control groups in their vocabulary retention (P < 0.05, i.e., p = 0.003), and in their reading comprehension (p < 0.05, i.e., p = 0.000) respectively. Similarly, a paired sample t-test was used to compare post-test, and delayed post-test results. The result of the comparison showed that the experimental group retained more vocabulary than the control group since the mean difference between the tests was close to zero (i.e., 0.120) and p > 0.05. Finally, the overall test results indicated that explicit instruction improved students' vocabulary retention and reading comprehension than conventional methods. Thus, the findings from this study pointed out that explicit vocabulary instruction was one of the most effective methods for improving students' vocabulary retention and reading comprehension.

Keywords: explicit vocabulary instruction; vocabulary retention; reading comprehension

1. Introduction

Recent developments in second language acquisition and foreign language learning highlight that non-native speakers, apart from grammar and pronunciation, require a solid foundation of vocabulary knowledge to be successful users of English language in academic environment (Viera, 2017).Thus, regardless of how good learners understand grammar and pronunciation, they will be unable to communicate effectively unless they have acquired a significant vocabulary number (Min, 2013). Wilkins in Thornbury (2004, p.13) states that "without grammar, very little can be conveyed; without vocabulary nothing can be conveyed." It means that even if someone has good grammar knowledge, he/she will not effectively communicate as far as he/she does not know many words. However,

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"vocabulary learning is not a goal in itself; it is done to help learners listen, speak, read or write more effectively" (Nation, 2001, p. 16). The more people master vocabulary, the more they can speak, write, read and listen as they want (Nation, 2004). In other words, enriching in vocabulary is directly related to academic performance.This is because as students know more words, they can articulate their ideas, understand the texts and they understand others' idea effectively.

Moreover, the ultimate goal of teaching vocabulary to students is to expand, refine and increase their existing conceptual knowledge so that to improve their retention, comprehension and understanding capacity (Bauman et al., 2005). Effective vocabulary instruction can encourage students to make associations, and to make accommodations based on their experiences as well as based on their knowledge. This provides them with a variety of opportunities to practice, apply and discuss their ideas in a meaningful context (McKeown& Beck, 2014; Butler, 2007; Huck, 2006; Rupley& Nichols, 2005). Therefore, there is a crucial need for more vocabulary instruction at all grade levels (Sedita, 2005; Souleyman, 2009).

Huck (2006) states that the effectiveness of vocabulary instructions in helping students to develop word knowledge as well as communication skills is dependent on the teachers 'abilities to follow the possible guidelines for using the different vocabulary instructions in the real classroom. Similarly, according to Bromley (2002), there are some specific guidelines for effective vocabulary instructions. These guidelines emphasize that the teacher should: (a) show an attitude of interest and excitement about the language and words, (b) assess students' knowledge, and he should understand the importance of the words before teaching them, (c) vary his teaching methods when he teaches new words, (d) activate students' schema and meta-cognition, (e) note multiple meanings of words and provide paraphrased meanings, (f) teach word structure and relate new words to other words, (g) invite students to interact with each other about new words, (h) model and teach word learning as an active strategy for independence, and (i) do not overlook the internet as a way to motivate word learning.

Likewise, the National Reading Panel (2000) identified different types of vocabulary instructions that are effective for teaching vocabulary. However, the focus of this study is on explicit vocabulary instruction. Therefore, it is not important to list and explain the different types. According to Martin-Sanchez (as cited in Bauer & Tang, 2022), explicit vocabulary instruction is a pedagogical strategy that involves the structured and systematic teaching of vocabulary words with direct instruction,and with different learning strategies. It is based on the theoretical assumption that students need to be explicitly taught the meaning of new words so that they can learn them effectively.

In the same way, Biemiller and Boote (2006), and Nash and Snowling (2006) state the theoretical contributions of explicit vocabulary instruction as an instruction that helps students to learn the meaning of new words in a deep and meaningful way. When students are explicitly taught the meaning of a new word using the appropriate strategies, they can understand the word's meaning in a way that goes beyond simply being able to recognize it in a text. In addition, when students are explicitly taught how to learn new words, they are able to transfer these strategies to other words that they encounter in different contexts. This helps them to become more independent vocabulary learners. Moreover, when students are explicitly taught new words, they are given multiple opportunities to practice using the words. This again helps them to solidify the words in their memory.

Furthermore, according to Dörnyei (2001), in explicit vocabulary instruction, learners know that they are part of the formal learning task which means they know their goals and objectives. Their goals and objectives are to learn different target vocabularies consciously using different explicit vocabulary instructions like decontextualized lexicons, contexts, word parts, different graphic organizers and dictionaries. In this instruction, learners learn the meaning of vocabulary by giving conscious attention, and by processing. Besides, teachers can teach different vocabulary activities intentionally (Laufer & Hulstijn, 2001).

A number of principles for the explicit instruction of vocabulary teaching have been suggested by Schmitt (2008, p. 341).These principles include: a) building a large sight vocabulary, b) integrating new words with old ones, c) providing numerous encounters with a word, d) promoting a deep level of processing, e) making new words "real" by connecting them to the students' world in some way, f) encouraging independent learning strategies, g) diagnosing the most frequent words learners need to study, h) providing different opportunities for elaborating word knowledge, i) providing enabling opportunities for developing fluency with known vocabulary, j) examining different types of dictionaries and k) teaching students how to use them. Finally, Schmitt (2008) recommends that if the language teacher, and the students apply these principles properly, the explicit vocabulary learning instruction always leads to greater and faster gains with a better chance of retention and comprehension.

However, according to Sardroud (2013), in teaching a foreign language, particularly in teaching vocabulary, one of the main problems teachers' encounter is how to help students gain a massive number of foreign words to memory. This is because, as research has shown, there is a close relationship between human memory, and its ability to retain and recall different vocabulary (Ramezanali, 2017). Memory has a crucial impact on eventual vocabulary earning and achievement (Amiryousefi & Ketabi, 2011).

Therefore, Nation (1990) suggested the following procedures to help learners have good vocabulary retention: to retain the meaning of a new word, students must conduct a deeper analysis of its properties such as its meaning, written form, spoken form, grammatical behavior, collocations, register, associations and frequency rather than simply understanding its meaning in context. This idea is supported by Thornbury (2002) who stated that how people remember something well depends on how they deeply process itbecause the deeper the mental processing used when learning a word, the more likely a student will remember it.

In addition, the importance of vocabulary in reading achievement has been recognized for more than half a century. As early as 1925, in the National Society for Studies in Education (NSSE) Yearbook, its importance was expressed as growth in reading power means. Therefore, continuous enriching and enlarging of the reading vocabulary, and increasing clarity of discrimination in appreciation of word values were given emphasis (Whipple, 1925).

In the same way, vocabulary knowledge and its role in reading comprehension have been one of the main areas of focus in second language research for the last twenty years (Juel & Deffes, 2004). As a result, researchers and teachers have been working hard to improve EFL students' reading comprehension achievement (Nation, 2006). This is because success in reading comprehension is usually seen as fundamental to the academic success of foreign language learners.

Furthermore, researchers have adopted differing views on the precise nature of the relationship between vocabulary and reading comprehension which resulted to the development of different theories and models (Anderson & Freebody, 1982; Mezynski, 1983; Nation, 1993). In the instrumental perspective of vocabulary knowledge, vocabulary is viewed as a direct and causal determinant of reading comprehension. This direct association has a significant impact on students' academic growth and performance (Gaudio, 2003; Glowacki et al., 2001). Students' reading comprehension abilities are critical for success in most content courses. As a result, writers, educators and scholars have taken this issue seriously. As a result, they have investigated the relationship between vocabulary and reading comprehension, and they have tried to find the best techniques to improve EFL students' reading comprehension (Al-Darayseh, 2014).

No text comprehension is possible either in one's own language or in a foreign language without understanding the text's vocabulary because readers cannot understand and comprehend what they are reading without knowing what most of the words mean (Laufer, 1997). Mecartty (2000) supports this idea by stating that the stronger the vocabulary knowledge the EFL student has, the better reading comprehension he or she will achieve. In addition,Nation (2001) explains that to understand 95% of the reading content, readers have to know at least 400 word families, 2000 high-frequency words, 570 general academic words, at least 1000 technical words and proper low-frequency word families. This is because he believes that students' reading comprehension will improve when their knowledge of words increases.

Similarly, Alderson (2000) argues that readers must concurrently process different levels of a text to comprehend their readings. Hence, he has distinguished among: reading the line, reading between the lines and reading beyond the lines. Reading the line refers to a basic literal comprehension by using fundamental knowledge of a given language to understand the surface concept that the writers try to convey to readers while reading between the lines involves background knowledge to comprehend the text. Reading beyond the line, on the other hand, requires readers to make judgments, and to evaluate the writing context. Vocabulary knowledge is unquestionably necessary for readers (students) at all reading levels (Mart, 2012).

Meaningful communication in L2 cannot take place unless there are words that express a wide range of meanings regardless of how well a student learns grammar or masters the sounds of the language. However, according to Moir and Nation (2008), there was a widely held belief that lexical instruction was unnecessary because it could occur naturally. Moreover, when the teaching of vocabulary items is taken into account, teachers take it for granted, and they let students grow their vocabulary knowledge on their own without providing them with enough vocabulary instruction (Karami, 2019).

Currently, scholars believe that students' learning of a language is mostly determined by the development of vocabulary in that language (Harmon et al., 2009). Nation (2001) contends that vocabulary and language have bi-directional effects in the sense that knowledge of vocabulary can lead to the use of language, and the use of language can lead to knowledge of vocabulary and reading comprehension skills.

Moreover, according to Chall and Jacobs (2003), students' word knowledge is strongly linked to their academic success because students who have broad vocabularies can understand new ideas and concepts more quickly than students who are with a limited vocabulary. They state that it is nearly impossible for students to read about, talk about, write about, recall about and understand information about volcanoes, for example, if they do not know the words "magma," "lava," "vent" and "erupt". Therefore, vocabulary, which

is the foundation of all other language skills, is a current focus in ESL/EFL pedagogy, and in research and has been increasingly recognized as essential to language use because inadequate vocabulary can lead to the learners' difficulty in language reception and production (Wei, 2007).

According to Karami and Bowles (2019), teachers and researchers can improve learners' vocabulary retention, and their comprehension ability through investigating and implementing the most important and effective vocabulary instructions, and the factors which affect vocabulary learning. As a result of this, there is a substantial body of research that supports the theoretical contributions of explicit vocabulary instruction for vocabulary retention and reading comprehension. For example, Sardroud (2013) conducted experimental research on the impact of training deep vocabulary learning strategies on the vocabulary retention of Iranian EFL learners at the college level. The result showed that "deep" processing strategies (keyword method, contextual guessing, metacognitive strategies and semantic mapping) have been found to be more effective in vocabulary retention than shallow processing strategies like oral rehearsal or rote repetition. Alamri and Rogers (2018) also conducted a quasi-experimental study to investigate the effectiveness of different explicit vocabulary teaching strategies on learners' retention of technical and academic words in preparatory grade 12 students. The result showed that participants have better vocabulary retention when they learn the words with visual annotation than when they read the texts alone.

Furthermore, various researchers have shown how vocabulary instruction affects students' reading comprehension skills. For instance, Stahl and Nagy (2006) conduct meta-analysis of 100 studies found that explicit vocabulary instruction produced a moderate effect size on reading comprehension. Likewise, Quay (2017) investigated the effects of implicit and explicit methods on second language vocabulary acquisition using reading comprehension exercises in the advanced section of grade 12. The result showed that the explicit approach had more impact than the implicit approach on vocabulary acquisition during comprehension exercises. Additionally, Pierce (2013) researched the effectiveness of explicit rich vocabulary instruction on the reading comprehension, and on the word knowledge of high school students. The findings showed that explicit vocabulary instruction had a greater impact on reading comprehension compared to a control group who were taught by conventional vocabulary instruction.

However, recent study indicates that teaching vocabulary may be problematic because many teachers are not confident about best practices in vocabulary teaching, and at times they don't know where to begin to form an instructional emphasis on word learning (Alqahtani, 2015; Berne & Blachowicz, 2008). This problem is also common in Ethiopia at different grade levels. For example, in the researcher's personal experience of teaching in preparatory school, and at the tertiary level, most students have problems with vocabulary retention and reading comprehension. This is because most language teachers and students are unaware of the various vocabulary strategies or approaches that can be used in the classroom (Miressa, 2014), and he added that teachers lack knowledge and theoretical orientation in vocabulary teaching strategies.

Beyond this, the researcher decided to conduct this study for a number of reasons including: his experience, the lesson observed (his preliminary study), the research gap at this grade level and the ongoing debate among scholars about the ideal vocabulary instruction practices for students to improve their vocabulary retention and reading comprehension skills.

Besides, the researcher taught eleventh grade for three years. In his teaching experience, despite the fact that teaching in today's generation necessitates a shift in educational approach from the traditional to a more comprehensive, communicative, and technological approach, the researcher's experience at preparatory school as well as the preliminary study at grade eleven level revealed that both the researcher and the EFL teacher that was observed by the researcher during the preliminary study taught vocabulary in the traditional or conventional manner. That is, the EFL teacher left vocabulary and reading activities for the students. For instance, in the researcher's preliminary study, when there was a vocabulary exercise, the EFL teacher gave them the vocabulary activities as home work without telling them how to work, and how to understand the meaning of the given vocabulary words, but most of the time he advised them to use a dictionary if they had any difficulty. Sometimes, when the teacher thinks the word is difficult for the students, he translates it into Amharic. This can be problematic because the translation of many stories, poems, idioms, and proverbs into the translator's native language can be inappropriate or incomprehensible (Barcroft, 2009). In the same way, when there are reading tasks, he simply orders students to read the passage at home, and to do the activities by themselves. This was also the experience that the researcher experienced when he taught at the aforementioned grade level. This depicts that the researcher and EFL teacher that was observed by the researcher during the preliminary study missed the use of explicit vocabulary instruction like using decontextualized lexis (visual aids like pictures, photos, diagrams, wall charts, and videos), contexts (synonyms, antonyms, definitions, examples, etc.), word parts (prefix, root, and suffix) and different graphic organizers (semantic maps, semantic feature analysis) that assisted students in having better retention and comprehension skills. Moreover, as far as the researcher's reading experience is concerned, no study has been conducted to see the effects of explicit vocabulary instruction on students' vocabulary retention and reading comprehension at any grade level locally. Therefore, the researcher's experience in teaching English, the preliminary study that he conducted and the research gap identified at this grade level convinced him to undertake this study.

The objective of the study was to examine the effects of explicit vocabulary instruction on grade 11 students' vocabulary retention, and on their reading comprehension.In addition, the following specific objectives have been set:

- to investigate the difference in vocabulary retention between students who learn through explicit instructions, and those who learn through conventional methods.
- to examine the difference in reading comprehension between students who learn through explicit instructions, and those who learn through conventional methods.
- to see whether or not thereis a statistically significant difference in the students' long-term vocabulary retention between the experimental and control groups?

Based on the problem stated above, and to achieve the objectives set, the following research questions were posed.
1. What effects does explicit vocabulary instruction have on EFL students' vocabulary retention?
2. What effects does explicit vocabulary instruction have on EFL students' reading comprehension?
3. Is there a statistically significant difference in the students' long-term vocabulary retention between the experimental, and the control groups?

2. Research Methods

2.1. Design of the Study

To examine the effects of explicit vocabulary instruction on EFL students' vocabulary retention and reading comprehension, a quasi-experimental design with pre- and post-tests, and on two intact groups (the control and treatment groups of students) was designed. Similarly, a quantitative approach was used for this research.

2.2. Research Site, Participants, and Sampling Technique

There are nine public and three private preparatory schools in Gondar city. However, the researcher intentionally sampled government schools for a number of reasons. The first reason is the experience that the researcher had in teaching English at the eleventh-grade level in a government school. Second, the researcher did community service for three months at one of the government schools in Gondar city, Hidar 11th grade students which was organized by UoG. Third, the preliminary study that he did on grade eleven students at Azezo governmental Preparatory School helped himto identify students who had a serious problem with vocabulary retention and reading comprehension.

The school which is chosen for the research was Shinta Preparatory School because of its convenience for the researcher due to its proximity to his work place, but other governmental schools which mentioned above required more time and budget. The participants (n = 50 for the experimental group, and n = 43 for the control group), i.e., two sections (sections 3 and 5) were sampled for the study using a simple random (lottery) method from the five 11th grade sections who were learning in 2014.In the same way, the researcher assigned the experimental and control groups after he administered the pre-test to ensure that they were equivalent and homogenous. As students' pre-test results indicated, there was no significant mean difference between the two groups in either vocabulary retention or reading comprehension test results. Hence, he assigned the groups as experimental, and as control groups using a simple random technique particularly a lottery method.

The researcher selected this grade level because it is a stage or level at which students should be expected to use vocabulary instructions in order to improve their retention and comprehension abilities on a given task. Beyond this, the students will take university entrance exams a year later, and the study would help them to be successful both in vocabulary questions as well as reading comprehension questions. Moreover, when learners enter university, they are expected to have good vocabulary background knowledge, reading comprehension skills and other skills that could help them be effective in their academic endeavors. As Blachowicz et al. (2005) and Sedita (2005) suggest, there are a vital need for more vocabulary instruction at all grade levels regardless of a students' level of achievement in a certain subject whether they are low, medium, or higher achievers.

2.3. Data Collection Tools

The instruments which were employed in this study were the vocabulary retention and reading comprehension tests. The researcher, therefore, prepared two types of tests i.e.., vocabulary retention and reading comprehension tests for the pre-test and post-test. For instance, the vocabulary retention test required the participants to find meanings of underlined words based on the context of the sentence to find synonyms and antonyms of given words, and to match the words in the "**A**" column with their definitions in

the "**B**" column while the reading comprehension test had comprehension, main idea identification, reference and vocabulary questions based on the reading passage. Each of the vocabulary questions had four options (A-D)and all tests have been adapted from the current students' textbook, teacher's guidebook, grade eleven final examinations, and reference books like Extreme English and Advanced English for Grade Eleven and all the tests have been validated. Test validity is a quality of a test that is bestowed by testing experts to make a test measure what it is supposed to measure (Gaur & Gaur, 2009). As result, a group of TEFL specialists or subject matter experts who teach the subject at the university and preparatory grade level were asked to review the test items, types and contents in order to ensure the validity of the vocabulary-reading comprehension pre-post-tests that were prepared by the researcher. Following this, the researcher checked the reliability or internal consistency of the tests using a parallel test. i.e., the researcher calculated the correlation between the two versions of the test, and the result of the Pearson Correlation was high.

2.4. Intervention procedure

Explicit vocabulary teaching is defined as the condition in which the reader is overtly informed about the actual objective of the activity. In this study, the subjects were informed that their task was to learn and retain the new and highlighted vocabulary which was contained in the text. As a result, the teacher used the deductive approach which is represented by, "I Do It, We Do It, and You Do It" classroom strategies. For example, during the experiment, the language teacher raised students' awareness about the use of explicit vocabulary instructions by providing them with various examples using multiple opportunities like decontextualized lexis, word-parts, contexts and graphic organizers. That means the language teacher scaffolds students first by presenting examples using multiple opportunities, and then lets his or her students do it together by giving them time to practice independently.

For instance, during pre-reading, the teacher presented different brainstorm questions about the topic in the form of words or visual aids, and the students were expected to define or say what they felt individually as well as in a group. During the while-reading stage, the EFL teacher asked students to find the meaning of some vocabulary based on the context of the text using contextual clues like synonyms, antonyms, restatement, definition and word parts like prefix, base word, suffix, complete tasks and answer comprehension questions.

At the post-reading stage, the teacher allowed students to construct their sentences using the given new words, and helped students use different graphic organizers such as: the concept of a definition map, semantic maps, semantic feature analysis and compare and contrast to enhance their vocabulary retention, and their reading comprehension performance. The roles of the students were to try to find the meaning of the unknown words by following the teacher's example, by using different contextual clues, by completing the incomplete tasks, by doing some comprehension tasks, and by participating in class activities individually and in groups. Finally, the language teacher gave them feedbacks. Regarding the control group, the teacher taught the vocabulary lesson based on the experience that he had before when he taught vocabulary in preparatory school.

To verify whether or not the experimental teacher properly addressed the treatment for the experimental group, and to verify information dissemination for the control group, the researcher observed two lessons for each group, and intervention sessions were conducted for eight weeks, two lessons per week, and 45 minutes for each lesson.

2.5. Data Collection Procedures

The following procedures were followed in conducting this study: First, the researcher received a consent letter from the Department of English Language and Literature. Second, he visited the selected school, and he met with the school administrators and the English teacher who taught English in the selected grade. He also explained the overall aim of the study to both the school administrators, and the English teachers after asking the EFL teachers' willingness to participate in the study. After the researcher got their willingness, he made an appointment to have a discussion about the implementation, and about the time to give the pre-test. However, before the researcher administered the pre-test for the sample population, he did a try-out on other sections that were not part of the sample population to test the difficulty of the item and item discrimination. For the tryout, twenty-four (24) items were prepared. Based on the interpretation difficulty index, four items from the vocabulary retention test, and four items from the reading compression test were removed from the test because the item difficulty index result showed the participant scores < 0.20, and the item discrimination index showed negative and zero. Therefore, the remaining twenty (20) items were administered as a pre-test to check their homogeneity, and the status of the participants. After analyzing the pre-test results, it was found that there was no statistically significant difference between the two sections. So, the groups were assigned randomly as experimental, and as control groups. Fourth, the researcher gave training to the experimenter about the theory, benefits and implementation of explicit vocabulary instruction. During the training, the researcher tried to present some vocabulary activities that were extracted from the grade eleven text book using the principles of the explicit vocabulary approach "***THE I DO IT, WE DO IT, AND YOU DO IT***," class room strategies using visual aids (pictures, photos, diagrams, and images) examples, reading passages, word parts (prefix, root, and suffix) and contexts for about two weeks. After getting a brief overview of explicit vocabulary instruction, the EFL teacher who gave the treatment began to treat the experimental group with explicit vocabulary instruction; however, for the control group, the teacher taught the vocabulary lesson as he used to teach vocabulary. Both the experimental and control groups were taught by the same teacher to avoid differences that may come as result of individual differences. This is because the same teacher can ensure that both groups are exposed to the same content which helps to ensure that any differences in performance are due to the experimental treatment rather than other factors. Fifth, immediately after the treatments, post-tests were given for both the experimental, and for the control groups. Finally, three weeks after the post-intervention, the researcher conducted a delayed post-test that was similar to the post-test in terms of content, item types and time allotted, but different in the order of questions to assess students' long-term retention.

2.6. Data Analysis

To identify the changes (if any) that occurred as a result of the intervention, data collected in vocabulary retention, and in reading comprehension tests were quantitatively analyzed using SPSS version 20. Independent sample t-tests were used to answer both the first and the second research questions independently to compute students' achievements in the combined variables (vocabulary retention and reading comprehension skills).After the treatment, Paired sample t-tests were used to answer the third research question which focused on whether students have long-term memory or not by computing the experimental group's post-test result with their delayed post-test, and the control group's post-test result with their delayed post-test result. The alpha level of the statistical significance was set at ('p ≤ 0.05'). However, before analyzing the data, the assumptions of the independent

and paired-sample t-tests such as sample size, homogeneity and normality of the tests were tested. The researcher used an independent sample t-test when the sample size is 30, or more. However, the actual cell size of the study is greater than 30since the number of subjects in the explicit group is 50, and the control group is 43. The second assumption, normality, was ascertained by employing the normality test. The sample size of the explicit group was (N = 50). Therefore, the researcher used the Kolmogorov-Smirnov test of normality for the explicit group because as Pallant (2010) states, one should read the K-S for large sample sizes which is (N ≥ 50), and the researcher used Shapiro-Wilk for the control group because the sample size was (< 50). i.e. 43. Moreover, the researcher considered the skewness and kurtosis values, and the p-value for both groups in the combined variables (vocabulary retention and reading comprehension), and the results showed that there were no significant differences in the distribution of scores. Third,homogeneity which used to check whether groups were homogenous or not, the researcher considered the mean difference, and the p-value of the experimental and control groups. The result of the mean difference, and the p-value showed that there were no significant differences between the experimental, and the control groups in relation to the students' vocabulary retention and reading comprehension achievements. Regarding the paired sample t-test, the assumption of normality, and the sample size were considered. The researcher tested the assumptions of the analysis method before and after the intervention, and he confirmed that there was no violation of assumptions.

2.7. Ethical Considerations

Different ethical issues were considered before, during, and after the study. Asking for an approval letter from the department of English language and literature, going to the selected school, and elaborating briefly on the objectives of the study for the school director, and for the EFL teachers who teach subjects at the 11th grade level, the researcher asked the EFL teachers for their willingness to participate in the study. However, before the intervention program was completed, the students were not openly informed that they were being researched. Rather, they were informed about the goals, significance and nature of the activities that they would complete as part of their course. The intention of doing this was to avoid unnatural performance, and unusual behavior which might come because of the experiment, and to reduce the contamination of information among groups of participants. Therefore, instead of prior informed consent, a debriefing approach was followed. After analyzing the results, the researcher found that the experimental group who was treated with explicit vocabulary instruction showed a significant change in the combined variables compared to the control group. As a result, he instructed the control group for two weeks by picking a few tasks to which explicit teaching was applied. The objective was to raise awareness of explicit vocabulary instruction, and to ensure that students benefited from the instruction. However, the researcher was unable to tutor other Grade 11 students who weren't a part of the study due to time constraints.

3. Results and Discussions

3.1. Independent Samples t-test Result of vocabulary retention and reading comprehension

This study focused on whether or not explicit vocabulary training has an impact on students' vocabulary retention, and on their reading comprehension. In order to achieve the objectives set, vocabulary retention and reading comprehension tests were required. The researcher endeavored to see the effects of explicit vocabulary instruction on students'

vocabulary retention, and on their reading comprehension separately, and the data were analyzed using an independent and paired-sample t-test.

Pre-intervention Findings, and the Analyses of Vocabulary Retention Test Results (Explicit and Control Groups)

The first research question was, "What effect does explicit vocabulary instruction have on EFL students' vocabulary retention?" Following this, an independent sample t-test was computed to examine the effects of explicit vocabulary instruction on students' vocabulary retention. Table 3.1below summarizes the descriptive statistics, and an inferential statistical test result of the dependent variable in the pre-intervention.

Test	Dependent variable	Group	N	Mean	SD	t	df	Sig. (2-tailed
Pre-test	Vocabulary	Experimental	50	11.90	3.866			
	Retention	Control	43	11.98	3.833	-.096	91	.924

Table 3.1 shows an independent-sample t-test was conducted to compute the experimental, and the control groups' vocabulary retention before the intervention. There was no significant difference in scores for experimental (M = 11.90, SD = 3.866) and control (M = 11.98, SD = 3.833; t (91) = -.096, p =.924, two-tailed). The mean difference between the two groups was 0.08. As a result of this, it can be concluded that there was no statistically significant difference between the experimental, and the control groups in relation to the students' vocabulary retention achievement before the intervention.

Post-intervention Findings, and the Analyses of Vocabulary Retention Test Results (Explicit and Control Groups)

Table3.2: Experimental and Control Group Students' Achievement in the Vocabulary Retention Post- test (N=93)

Test	Dependent variable	Group	N	Mean	SD	t	df	Sig. (2-tailed
Post test	Vocabulary retention	Experimental	50	14.00	3.037	3.046	91	.003
		Control	43	11.95	3.387			

As the above table shows, there was significant difference in students' vocabulary retention test scores for the experimental group (M = 14.00, SD = 3.037, and control group (M = 11.95, SD = 3.887; t (91) = 3.05., p =.003, two-tailed). The mean difference between the two groups was 2.05. Based on Cohen's d p output, the effect size was moderate, (0.09). This indicated that students in the experimental group scored better result in vocabulary retention most probably due to the effect of explicit vocabulary instruction than the control group did.

The findings of the study supported those of previous studies (Alamri& Rogers, 2018; Yaghoubi & Seyyedi, 2017)whose findings showed that although both methods of teaching vocabulary were found to be effective, explicit vocabulary instruction enhanced students' vocabulary retention than the other methods of vocabulary instruction. Kaivanpanah et al. (2021) who examined the effects of explicit, implicit, and modified-implicit instruction

on EFL learners' vocabulary learning and retention found that learners in the explicit group learn vocabulary better, and they retain it longer. Moreover, the results of the study were also in conformity with the claims made by Thornbury (2002) who contend that explicit vocabulary learning could lead to better results if it engaged learners in activities requiring deep-level cognitive processing. The findings of this study, however, differ from those of Tahir, Albakri, Adnan, and Karim (2020) who investigated the effects of explicit vocabulary instruction on secondary ESL students' vocabulary learning. According to the results, both the experimental, and the control groups improved significantly (p.000) in their vocabulary retention.

Pre-intervention Findings, and the Analyses of Reading Comprehension Test Results (Explicit and Control Groups)

The second research question was, "What effect does explicit vocabulary instruction have on EFL students' reading comprehension?" Consequently, an independent sample t-test was computed to examine the effects of explicit vocabulary instruction on students' reading comprehension.

Table 3.3 Experimental and Control Groups Students' Achievement in the Reading Comprehension Pre- test (N=93)

Test	Dependent variable	Group	N	Mean	SD	t	df	Sig. (2-tailed
Pre –test	Reading comprehension	Experimental	50	12.34	3.895	1.434	91	.155
		Control	43	11.21	3.701			

An independent t-test was conducted to compare the mean scores of the two groups with a significance level of .05. As Table 3.3 illustrates,there was no significant difference in scores for experimental (M = 12.34, SD = 3.895) and control (M = 11.21, SD = 3.701; t (91) = 1.4, p =.16, two-tailed). The mean difference between the two groups was 1.13. In consequence, it can be concluded that there was no statistically significant difference between the experimental, and the control groups in relation to the students' reading comprehension achievements before the intervention.

Post-intervention Findings, and the Analyses of Reading Comprehension Test Results (Explicit and Control Groups)

Table 3.4: Experimental and Control Groups Students' Achievement in the Reading Comprehension Post- test (N=93)

Test	Dependent variable	Group	N	Mean	SD	t	df	Sig. (2-tailed
Post test	Reading comprehension	Experimental	50	14.86	2.572	5.691	91	.000
		Control	43	11.44	3.134			

As the Table shows, there was significant difference in students' reading comprehension test scores for the experimental group (M = 14.86, SD = 2.572, and for the control group (M = 11.44, SD = 3.134; t (91) = 5.69., p =.000, two-tailed). The mean difference between the two groups was 3.42. Based on Cohen's d p output, the effect size was large (.26).

This showed that students in the experimental group scored better results in reading comprehension most likely due to the effect of explicit vocabulary instruction than the control group did.

The result of the study supports the findings of the previous works (Aghaie & Zhang, 2012; Bauer, 2022; Kusumawati &Widiati, 2017) suggesting that explicit vocabulary instruction is more effective in promoting students' reading comprehension skills. In addition, Moscho and Moscho (2017) conducted action research on the effects of explicit vocabulary instruction on reading comprehension, and the results indicated that explicit vocabulary instruction had an effect on improving students' reading comprehension skills. However, the results of the study differ from those of Horn and Feng (2012) who conducted a study on the effect of focused vocabulary instruction on reading comprehension. Their study results showed that there was no statistically significant difference in the performance of the experimental group, and the control groups in reading comprehension or vocabulary acquisition. In a similar vein, Pawlicki (2017) investigated the effects of explicit vocabulary instruction on struggling middle school students' reading comprehension skills. The result of the study indicated that there was no statistically significant difference between the experimental, and the control groups in their reading comprehension performance.

Paired Samples t-test Results of Vocabulary Retention

The third research question which was attempted to find out if there was a statistically significant difference in the students' long-term vocabulary retention between the experimental and the control groups? Hence, to see whether there is a statistically significant difference or not in the students' long-term vocabulary retention between the experimental, and the control groups, the researcher compared the experimental group students' post-test result with their delayed post-test, and the control group students' post-test result with their delayed post-test at each pair independently using paired-sample t-test statistics for analysis. Therefore, three weeks later, after the post-test, a delayed vocabulary recall post-test which was the same as the post-test, was administered to the experimental, and to the control groups to check whether or not the students retained the target words.

Table 3.5: Paired Samples Statistics on Vocabulary Retention Post-and Delayed Post-Test Results(N= 93)

Post and delayed post- test		Paired Differences					t-	Df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Mean Difference	Lower	Upper			
Pair 1	Experimental post-test	2.811	3.037	.120	-.067	.307	1.288	49	.204
	Experimental delayed	3.387	2.811						
Pair 2	Control post-test	3.073	3.387	.442	.206	.677	3.786	42	.000
	Control delayed	11.51	3.073						

A paired sample t-test was conducted to compare the mean vocabulary scores on the

immediate, and on the delayed post-tests. The results of the t-test showed that there was no significant difference between the two time scores in the experimental group t (49) = 1.288, p = 0.204. The mean vocabulary score on the immediate post-test was 14.00 while the mean vocabulary score on the delayed post-test was 13.88 with the mean difference between the two tests being.120, and based on Cohen's d output, the effect size was small effect (0.03). However, as the Table shows at pair 2, there was a statistically significant difference between the immediate post-test, and the delayed post-test in the control group t (42) = 3.786, p< 0. 05. The mean vocabulary score on the immediate post-test was 11.95 while the mean vocabulary score on the delayed post-test was 11.95 with a mean decrease in the delayed post-test of.440, and the effect size was large (0.26).

As the above Table depicts , the experimental group had better retention (long-term memory) compared to the control group because the mean difference between the experimental group's post-test, and the delayed post-test was 0.120 whereas the mean difference between the control group's post-test, and delayed post-test was 0.442. According to SWebb and ACS Chang (2015), T Nakata (2015), andTavakoli and Gerami (2013), if there is a mean difference between the post-test, and delayed post-test that is close to zero, students have higher retention than those whose mean difference is closer to one. This is because a smaller mean difference between the post-test, and delayed post-test indicated that the participants have retained more of the knowledge or skills they learned from the intervention.

In general, students in the experimental group retained more vocabulary than the control group most likely due to the benefits of explicit vocabulary instruction. This study is supported by Kaivanpanah et al. (2021) who examined the effects of explicit, implicit, and modified-implicit instruction on EFL learners' vocabulary learning, and on their retention, and the result showed that learners in the explicit group learn vocabulary better, and they retain it longer.

4. Conclusions

Vocabulary instruction is one of the most important ways for teachers to improve their students' retention, and reading comprehension skills; yet it is also one of the most difficult things a teacher can do successfully. Thus, what students learn is determined not only by what they are taught, but also by how they are taught in relation to their developmental level, interests, and experiences (Curtis & Longo, 2001). This belief requires paying much closer attention to the methods chosen for vocabulary instruction. The present study investigated the effects of explicit vocabulary instruction on EFL students' vocabulary retention and reading comprehension in grade 11 students at Shinta Preparatory School, Gondar. As the finding showed, teaching vocabulary explicitly through multiple strategies like pictures, images, word parts, context, diagrams, following examples, and detailed and precise instructions on the given activities helped students know more words , recall the words better and comprehend the given text than students who were taught vocabulary through conventional method of teaching. Finally, as the finding indicated, students who learned vocabulary through explicit vocabulary instruction showed a significant change in the combined variables (vocabulary retention and reading comprehension) better than those students who learned vocabulary through the conventional way of teaching.

5. Recommendations

The findings of the study can be put to use by EFL teachers in a variety of ways since they clarify how to teach vocabulary in EFL situations like in Ethiopia. It is necessary to notice that EFL teachers should use explicit vocabulary teaching techniques and strategies as alternatives, and they should try to avoid the beliefs that they have on vocabulary and reading tasks which they hold and practice that students should try the tasks by themselves without showing or telling them how they can do the activities or how they can learn and comprehend the given reading tasks.

Similarly, students should always be encouraged to use multiple explicit vocabulary strategies, and to utilize the clues implied in the reading texts so as to enhance their vocabulary retention, and improve their reading comprehension skills. A longitudinal study is recommended in the future to observe the effects of the explicit method of vocabulary instruction if more time is given for the learners to learn the target words. Such work will indicate whether or not a longer learning period results in better vocabulary retention and improves students' reading comprehension skills. Moreover, previous studies have typically focused on the effects of explicit vocabulary instruction on reading comprehension, and on vocabulary instruction. However, it is important to investigate whether the effects of explicit vocabulary instruction are the same for other tasks such as writing, speaking and listening.

Acknowledgments

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