Scope of English Language Teaching, Literature and Linguistics
Program Studi Pendidikan Bahasa Inggris FKIP
Universitas Muslim Maros
Vol. 6 No. 2, December 2023, pp. 98-114
https://ejournals.umma.ac.id/index.php/seltics
seltics@umma.ac.id, p-ISSN: 2623-2642, e-ISSN: 2655-5417

The Impact of Explicit Instruction on Teaching Vocabulary to Fourth-Grade Students

Masrul[1], Bayu Hendro Wicaksono[2]
[1)] Pendidikan Bahasa Inggris, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Pahlawan Tuanku Tambusai
[2)] Pendidikan Bahasa Inggris, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Muhammadiyah Malang
[1)] masrulm25@gmail.com
[2)] bayu_hw@umm.ac.id

ABSTRACT

This research aimed to discover the impact of explicit instruction on teaching vocabulary to students with vocabulary difficulties. This explicit instruction involves directly teaching vocabulary words, providing detailed definitions, and practicing using these words in the context of sentences. The participants were 95 fourth-grade students. Participants who scored under 40 on the vocabulary test were randomly assigned to the experimental or control classes. The experimental group receives explicit instruction, while the control group receives conventional teaching from a teacher in a whole group setting. The experiment was conducted twice a week during 20 learning sessions. A teacher taught The reference group the same vocabulary as the whole group. Based on the data analysis using a mixed-model (multi-level) Time Condition analysis, the results remarked the moderate effect of the intervention on students' vocabulary knowledge and reading comprehension. Besides, the experiment group could write better sentences using the vocabulary taught than the control group. Research implication was also discussed.

Keywords: *Explicit Instruction, Vocabulary Learning, Vocabulary Knowledge, Vocabulary Difficulties, And Reading Comprehension*

INTRODUCTION

Vocabulary is crucial to succeeding in learning English. In the teaching context, students at elementary schools have built their vocabularies, and the teacher must comprehend the vocabulary knowledge to be used as a communication and evaluation tool (Carrier, 2013). In this stage, it is crucial to support students' vocabulary development because vocabulary knowledge is vital in supporting students' comprehension and understanding of the reading content (Flanigan et al., 2012).

Regarding vocabulary knowledge, students with a good appraisal of vocabulary and reading strategies applied and believed that the literacy approach was essential to improving knowledge (Brown & Concannon, 2016). The rise of good appraisal may emerge on the importance of vocabulary knowledge as the most vital predictor of reading and writing. Students' reading score in their first language

could also predict their second language reading scores. Thus, the correlation between L1 and L2 writing is detected for L2 students with more excellent L2 vocabulary knowledge (Kim et al., 2020). In addition, the ability to use high-frequency words accurately was correlated with writing performance (Johnson et al., 2016).

Furthermore, students must have deep vocabulary knowledge, which means the students know the words well. It is usually improved through encountering and using the word in different contexts to learn the form, meaning, and word uses (Webb, 2012). It is also important to note that vocabulary is crucial in reading assessment (Qian, 2002). Educators must select a suitable test format for every grade based on the vocabulary learning objective (Christ et al., 2014).

In addition, some factors are associated with the student's vocabulary knowledge. Low vocabulary knowledge is related to high vocabulary knowledge in other languages (Mori & Calder, 2013). Moreover, students with low socioeconomic status experienced lower word learning gains than those with middle and upper socioeconomic status. This condition was caused by the total number of risk factors (e.g., English Language Learner, language delays). In addition, the only risk factor correlated with a lower effect size was poverty, controlling all risk factors and some instructional and pedagogical factors associated with a more significant size effect. In brief, it is essential to do a powerful intervention to accelerate students' vocabulary development if we are to narrow the reading achievement gap (Loren Marie Marulis & Neuman, 2013). Besides, a second-language education background, such as living in a second-language country, was also crucial to a better understanding of reading (Kim et al., 2020).

In addition, the teacher factor is also related to the student's vocabulary knowledge. The teacher determines the success of the vocabulary learning process through the instruction process. Teachers should use reading innovation to plan, implement, and reflect on vocabulary instruction (Blamey et al., 2012). In implementing shared reading, teachers can discuss it with fellow teachers during professional development. Teachers can primarily discuss the instructional strategies and co-construct their understanding by asking, answering, reporting questions, and inter-thinking (Anderson & Gallagher, 2019).

Regarding vocabulary, Xin & L. Affrunti (2019) researched using iPads to learn vocabulary. This research remarked that the student's vocabulary (word recognition, word meaning, and word application) increased when using the iPad. The other research on vocabulary instruction revealed that planned vocabulary instruction occurred in the context of read-a-loud storybooks and theme-based learning. The word is usually taught in phonics instruction, which was pervasive and used to facilitate learning letter sounds. Teacher knowledge about the importance of oral language in

teaching and learning English is reflected through pedagogical practices (Lau & Rao, 2013).

Several measures can be taken to increase students' vocabulary knowledge. First, the strategies focusing on the learning form and meaning of the word are essential factors for vocabulary breadth and depth of knowledge (Zhang & Lu, 2015). Second, online activities can also be a solution to increase students' activities because they positively impact students' knowledge of English vocabulary (Peters et al., 2019). Third, students with different levels of achievement may have different experiences and views of grouping (Tereshchenko et al., 2019). Fourth, shared reading techniques with vocabulary games increase students' vocabulary knowledge (Hassinger-Das et al., 2016). Fifth, vocabulary knowledge, listening proficiency, and instructional conditions are useful for enhancing vocabulary learning through listening (P. Zhang & Graham, 2020). The sixth proficient learner can be identified through a productive vocabulary score (Uchihara & Saito, 2019).

Vocabulary instruction is crucial (Sylvester et al., 2014) because it will impact other English skills and effectively increase students' ability to comprehend the text (Elleman et al., 2009). Vocabulary is usually taught at the elementary level as a whole class without distinguishing low-proficiency learners (Cuticelli et al., 2015). Even though the students had already learned vocabulary, the gap between low and high-proficiency students continues to widen because they learn the same materials.

Furthermore, It's important to note that developing vocabulary understanding includes instructing individual words and introducing groups of related words to construct semantic networks. (Hadley et al., 2019). For this reason, the teacher can consider using explicit instruction, which is based on cognitive and psychology, and highlight students' meta-cognitive (Shen, 2003). Explicit instruction should be mixed with practice to develop critical thinking, which is effective for the students (Heijltjes et al., 2014).

There were some reasons to use explicit instruction. First, explicit instruction can facilitate second-language learners by increasing their awareness of similarities and differences in how their first and second languages express the same meaning (Mcmanus & Marsden, 2019). Second, explicit instruction delivers learning material directly, precisely, and clearly, so that students understand and can use it in numerous contexts (Baker et al., 2019). In addition, explicit instruction effectively teaches vocabulary in depth because it provides step-by-step learning guidelines (Baker et al., 2017). Besides, it is applied based on three components: the content, which has logical sequences and is carefully selected; the content is separated into small units that take into account the learner's memory, attention, and background knowledge; and the teacher-composed guidelines, which contained what students need to practice, scaffolding the material to ensure the students acquire the skills taught and become

independent learner (Archer & Charles A HUges, 2011)

Vocabulary knowledge is strongly linked to reading comprehension, especially after high school, and most texts read are helpful (Hart & Risley, 2003). The understanding of the meaning of words and their relationship to the comprehension of the text and the progress of the reading was significant. For example, Cunningham & Stanovich (1997) found a correlation between vocabulary knowledge and reading comprehension, which was 0.55 and 0.85, respectively. Mckeown et al. (1983) documented the benefits of vocabulary instruction and practice in various contexts and their link to improved reading comprehension. More recently, Cromley & Azevedo (2007) found that vocabulary was among the most essential contributors to ninth-grade students' reading comprehension based on the direct and inferential mediation model.

Beck et al. (2013) outlined numerous crucial factors for teaching vocabulary, encompassing the deliberate choice of keywords and practical instructional approaches. Nagy et al. (2014) estimated 88,500 words of families in English school texts (grades 3–9). They suggested that "Tier Two" words should be identified when selecting instruction words, with approximately 7,000 words families in this category. Fundamental words categorized as "Tier One," like a clock, run, and cold, are usually acquired unintentionally through everyday spoken language contexts.

Nevertheless, "Tier Two" words, like precede, reluctant, and intimidated, are less commonly encountered in casual daily conversations, and even if they are, it can be difficult for a young child to deduce their meanings solely from the context (Beck et al., 2013). Teachers are advised to choose "Tier Two" words for teaching as students are unlikely to acquire these words independently. Additionally, “Tier Two” words are present in various fields and are deemed extremely valuable (Beck et al., 2013). Direct vocabulary instruction entails educating students about the meanings of words through easily understandable descriptions and examples. Research has indicated that children gain advantages from explicitly teaching "Tier Two" words in either a whole class or small group environment (Beck et al., 2013). Direct teaching can employ either an integrated or an expanded method. Embedded vocabulary instruction happens when students encounter target words within meaningful contexts (e.g., a storybook) and explicitly provide easily understandable definitions. Extended vocabulary and embedded instruction incorporate diverse and engaging interactive activities encourage students to contemplate and utilize words (Coyne et al., 2010). Numerous research endeavours have analysed vocabulary interventions' effects in enhancing students' vocabulary mastery, academic language, and comprehensive understanding of English reading (Parsons &

Bryant, 2016; Loren M. Marulis & Neuman, 2010; Elleman et al., 2009b).

This research focused on the effect of using explicit instruction in vocabulary teaching and general reading outcomes. One group of students was studying at a school in a low socioeconomic area, and the other students were attending a private school in a low to middle-high socioeconomic area. The study aimed to develop metalinguistic awareness of words, improving students' likelihood of deducing the meaning of unfamiliar vocabulary. This transfer may assist students in solidifying, combining, and accessing the knowledge they need regarding words and language.

METHODS

1. Research design

This research applied experiment research to explore the effect of explicit instruction on students' vocabulary and reading comprehension. Peabody Picture Vocabulary Test was employed as the pre-test. This test has been used widely to discover students' English vocabulary. The students scoring under 40 (n=35) were randomly grouped into the experiment or control classes. Meanwhile, the students who scored above 40 (n=60) were assigned to a reference group. The intervention group was segmented into three small groups, each comprising five students.

2. Participants and setting

The participants were 95 fourth-grade Indonesian students (43 females) attending government-funded public schools. Additionally, three teachers were also involved. They have conducted traditional instruction with more than five years of teaching experience and graduated from a prominent university in Indonesia.

3. Teaching Vocabulary Explicitly

The steps to teach vocabulary explicitly are as follows (Hanson & Padua, 2011).

a. Identify the potential list of words to be taught.

The researchers identified the three to five vocabularies to be taught. Then, the teacher should ensure the minimum number of vocabularies matches the ample time, which will benefit reading the text.

b. Determine which of these words to teach.

Vocabulary was selected based on the following criteria: a) the word is too difficult, b) the word is critical to comprehend the text, and c) the word explained a concept or topic. d) the context clues do not facilitate comprehending the text, e) The word will be found in the future reading

c. Plan how to teach the words using the following strategies:

Regarding teaching vocabulary explicitly, the teacher should pay attention to the following principles.

1. Offer a student-friendly definition.
2. Utilize the word in context and provide contextual information.
3. Supply multiple exposures.
4. Present chances for dynamic involvement

Moreover, four master's degree students were trained to conduct the research. The training was accomplished in two meetings led by the research team. It was directly conducted so that direct feedback was possible. Then, the intervention was carried out thrice a week in a small group of five students. In one meeting, the teacher taught five vocabulary words in-depth, and they were requested to read the whole text. The researcher followed the experiment process to ensure the fidelity of implementation. On the other hand, students in the control and reference groups were taught vocabulary using the traditional method. The teacher selected vocabulary from the book, explained it, gave an example, and asked them to provide their example.

4. Measures

In this research, four different measures were employed to discover students' vocabulary knowledge.

a. Peabody Picture Vocabulary Test

This test was utilized to assess receptive vocabulary, and it was conducted individually. Peabody Picture Vocabulary test is a standardized test and has satisfied the internal consistency of 0.91. Inter-rater reliability between two raters was 90%, and this test was only utilized at the beginning of the research to screen students' eligibility to participate in the intervention.

A single item is made up of four full-color images. The participant must select the picture that most accurately corresponds to the spoken word. Verbs, adjectives, and nouns are part of the list. The words fall into one of the 20 content categories: animals, actions, or emotions. According to the manual's guidelines, the participant's age determines the start time. An easier set is presented if a participant incorrectly answers two or more questions in one set. The basal set is the set with the fewest number of incorrect responses. The main phase of testing begins after the basal set is chosen. When a participant makes more than seven incorrect responses in a single set, the testing is over, and the ceiling is reached (Dunn & M, 2007).

b. Depth of vocabulary knowledge

The teacher selected fifteen vocabularies from the whole text. Then, the participants were asked to explain the word definition using sentences. All students were tested three times: pre-test, post-test, and maintenance test. The result of inter-rater reliability was 99.7%

The extent to which a word is known is called its depth of vocabulary knowledge. Developing vocabulary depth typically entails accumulating knowledge by encountering and using words in various contexts to learn words' forms, meanings, and applications. To fully understand words, one must be familiar with their spelling, pronunciation, derivations, inflections, meaning senses, semantic associations, collocations, grammatical functions, and when it is appropriate or inappropriate to use them (Nation, 2001). How much these facets of vocabulary knowledge are evident indicates the depth of vocabulary

knowledge, which indicates the extent to which words can or cannot be used successfully. The examination of evaluating the depth of vocabulary is still in its initial phases. In research, depth has been defined in three manners: accuracy of meaning, extensive understanding of words, and network knowledge. These classifications provide direction on ways to measure depth. Nevertheless, each has its limitations in measuring the depth comprehensively, and the similarity between the categories implies that they might not accurately assess depth when used together.

c. Reading comprehension test

This test was conducted at the beginning of the intervention (pre-test) and the end of the maintenance phase. Students were assessed collectively for 45 minutes. The criterion text reading comprehension was a composite score on the global comprehension parts of a reading test administered as an end-of-course test to the current samples. The assessment consisted of six separately timed subsections based on four academic passages ranging from 600 to 1000 words. It used short answers, true-false with justification, table/flowchart, or sentence completion tasks.

5. Fidelity of implementation

In 15 meetings, the researchers did five observations of the intervention process, with the observation time randomly determined by the teacher. In doing observation, the researchers utilized a checklist including the vocabulary component. Afterwards, the observation results were calculated to generate the behavior percentage observed in one section.

6. Data analysis procedure

This study investigated the impact of the intervention on the main results using a mixed-model (multi-level) Time Condition analysis (Murray & Sherri, 2004), which was structured to accommodate students who were partially grouped within small groups (Baldwin et al., 2011). According to the study design, individual students were randomly assigned to receive explicit instruction, nested within small groups, or a non-nested comparison condition. The analytical model should consider the potential for variations in variance across different conditions (Roberts & Roberts, 2005). The explicit instruction groups, in particular, required a group-level variance, whereas the un-clustered controls did not. Moreover, due to potential differences in residual variances among conditions, this study examined the assumption of residual homoscedasticity.

Subsequently, to elucidate the specifics of this analytical approach, Baldwin et al. (2011) utilized a mixed-model analysis of variance method to accommodate diverse variance structures between conditions and examined for heteroscedastic residual variances. This research broadened their approach to Time Condition analysis. The analysis looked for the differences in the outcomes from the pre-test to the post-test or in the depth of vocabulary knowledge assessments between conditions. The models

calculated the difference in net gains between conditions, providing an unbiased and straightforward interpretation of the findings. The first author can provide a detailed description of the basic model upon request (Murray & Sherri, 2004).

FINDING AND DISCUSSION

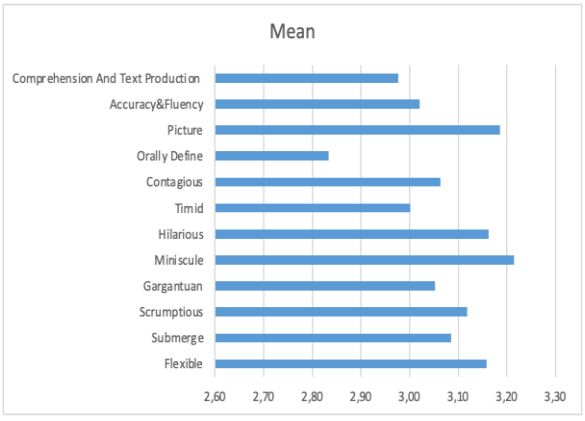
1. Descriptive statistic

Descriptive statistics was the first analysis technique to provide an overview of the measured variables. The analysis in descriptive statistics covered data centering (mean, modus, etc.) and data distribution (standard deviation, variance, etc.).

Table 1. Descriptive Statistics

No	Item	Mean	SD	Median	Min	Max
1	Flexible	3.16	1.05	3.20	1.20	5.00
2	Submerge	3.09	1.01	3.20	1.20	5.00
3	Scrumptious	3.12	1.09	3.10	1.10	5.00
4	Gargantuan	3.05	1.14	3.20	1.20	5.40
5	Miniscule	3.22	0.97	3.10	1.20	5.00
6	Hilarious	3.16	1.11	3.20	1.20	5.40
7	Timid	3.00	1.03	2.90	1.10	5.30
8	Contagious	3.06	1.06	3.00	1.20	5.30
9	Orally Define	2.83	1.07	2.80	1.20	5.30
10	Picture	3.19	0.85	3.10	1.40	5.20
11	Accuracy & Fluency	3.02	1.02	2.90	1.20	5.00
12	Comprehension and Text Production	2.98	1.07	2.90	1.10	5.30

Table 1 describes the mean and standard deviation of the variables in this research: Flexible, Submerge, Scrumptious, Gargantuan, Miniscule, Hilarious, Timid, Contagious, Orally Defined, Picture, Accuracy and fluency, Comprehension, and Text Production. The highest mean is for Miniscule (M=3.22), while the lowest is for Orally Define (M=2.83). For the standard deviation, the variable with the highest standard deviation is Gargantuan (SD=1.14), and the lowest standard deviation is Picture (0.85).



Picture 1. Mean Variable

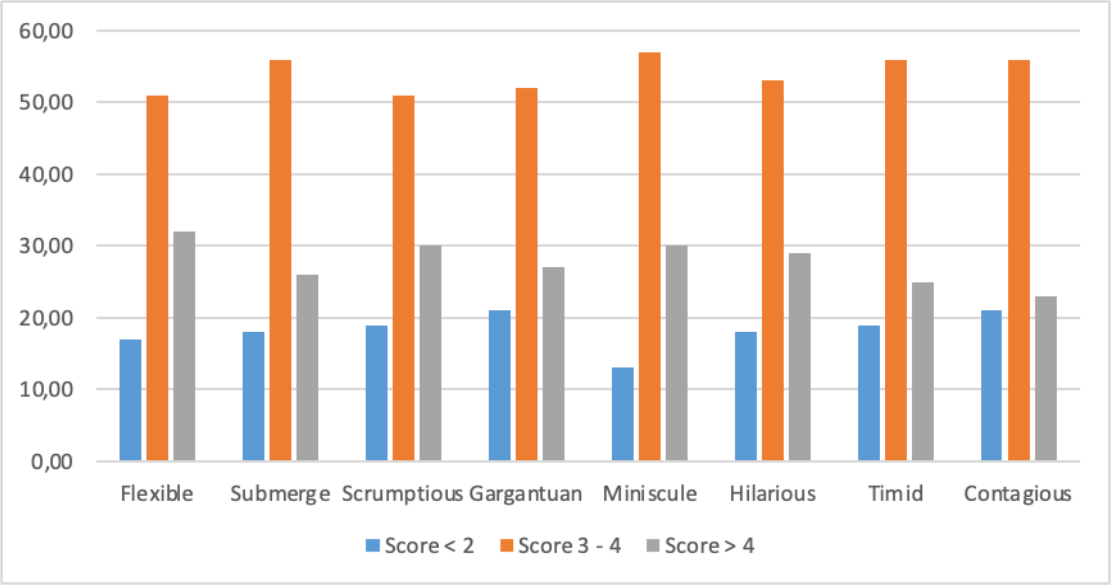
This research examined the description of students' scores on the variables. This step aimed to determine the student's ability as

measured by the value of the variables. The result can be seen in Table 2.

Table 2. Students Scoring

No	Item	Score < 2	Score 3 - 4	Score > 4
		N	N	N
1	Flexible	17.00	51.00	32.00
2	Submerge	18.00	56.00	26.00
3	Scrumptious	19.00	51.00	30.00
4	Gargantuan	21.00	52.00	27.00
5	Miniscule	13.00	57.00	30.00
6	Hilarious	18.00	53.00	29.00
7	Timid	19.00	56.00	25.00
8	Contagious	21.00	56.00	23.00
9	Average N	18.25	54.00	27.75

Student scores on the eight variables (Flexible, Submerge, Scrumptious, Gargantuan, Miniscule, Hilarious, Timid, and Contagious) were mostly at 3 and 4 (54%). The students who obtained a score of 2 reached 18%, and those above 4 reached 28%. The flexible variable had most students score above 4 (32%). Gargantuan and contagious variables had the highest proportion of students scored below 2 (21%).



Picture 2. Students Scoring

Kurtosis and skewness tests were carried out to ensure whether the variables in the study were feasible and valid to be analyzed by modelling. The results are displayed in Table 3.

Table 3. Skewness and Kurtosis test

No	Item	Skewness	Kurtosis
1	Timid	0.04	-0.80
2	Contagious	0.04	-0.91
3	Orally Define	0.33	-0.83
4	Picture	0.19	-0.43
5	Accuracy & Fluency	0.12	-0.76
6	Comprehension and Text Production	0.15	-1.01

The Skewness value shows the slope level of the data distribution, whether tilted to one side or not. At the same time, the kurtosis value shows the sharpness of the data distribution. All six variables modelled on skewness and kurtosis ranged from -2.96 to 2.96. It can be concluded that the six variables met the assumption of normal skewness and kurtosis. Hence, they were feasible and valid to continue in the modelling analysis.

Next, the relationship model was tested between variables timid (T) and contagious (G) toward variable orally define (OD), picture (P), accuracy & fluency (AF), comprehension and text production (CT), using multiple regression and ANOVA. Table 4 displays the results.

Table 4. Multiple Mode

Measure	OD	P	AF	CT
Intercept	2.842	3.285	2.819	2.877
Timid	0.059	-0.012	0.088	0.044
Contagious	-0.060	-0.020	-0.020	-0.010
T x C	0.322	0.958	0.672	0.914
R-Sq	0.070	0.300	0.290	0.190
Likelihood ratio	1.069	0.849	1.021	1.071

The intercept is the value of the dependent variable (OD, P, AF, and CR) when the timed and contagious variables are both 0. The OD, P, AF, and CT variables were 2.842, 3.285, 2.819, and 2.877, respectively.

Partially timid variables had an effect of 0.059 at the OD variable, meaning if the timid variable increases by 1 unit, it will cause the OD variable to increase by 0.059 unit. The effect of the timid at variable P was -0.012, meaning if timid variables increase by 1 unit, it will decrease the P by 0.012. In addition, the timid effect on the AF variable was 0.088; if the timid variable increases by 1 unit, it will increase the AF variable by 0.088. The timid effect at CT was 0.044, meaning when the timid variable increases by 1 unit, the CT variable increases by 0.044 unit.

The partially contagious variable contributes an effect of -0.060 at the OD variable. It can be interpreted that when the contagious variable increases by 1 unit, the OD variable decreases by 0.060 units. The effect of contagious on the P variable was -0.020; when the contagious variable increased by 1 unit, the P variable decreased by 0.020 unit. The effect of

the contagious on the AF variable was -0.020; if the contagious variable increases by 1 unit, the AF variable will decrease by 0.020 unit. Similarly, the contagious effect on the CT variable was -0.010; if the contagious variable increases by 1 unit, the CT variable will reduce by 0.010 unit.

Simultaneously, timid, and contagious variables had an impact of 0.322 on the OD variable; if the timid and contagious variable increases by 1 unit, the OD variable will increase by 0.322 unit. The effect of timid and contagiousness on variable P was strong (0.958). It means when the variable timid and contagious increases by 1 unit, the P variable will also increase by 0.958. The effect of timid and contagious on variable AF was moderate (0.672); if the timid and contagious variable increases by 1 unit, the AF variable will increase by 0.672 unit. The effect of timidness and contagiousness on the CT variable was also strong (0.914); if the two variables increase by 1 unit, the CT variable will increase by 0.914 units. Overall, timid, and contagious variables positively contribute to OD, P, AF, and CT variables.

R square shows the model's goodness-of-fit. the R square for OD, P, AF, and CT variables were 0.070, 0.300, 0.290, and 0.190.

The analysis of the differences between students who get a timid score below average and above average when connected to OD, P, AF, and CT was also carried out in this research. The result is presented in Table 5.

Table 5. Differences in the Timid test

Item	OD		P		AF		CT	
	Below Average	Above Average	Below Average	Above Average	Below Average	Above Average	Below Average	Above Average
Mean	2.77	2.90	3.21	3.16	3.02	3.02	2.98	2.97
Pearson Chi-Square	29.37		24.62		26.79		34.26	
Likelihood Ratio	37.46		31.06		33.70		45.42	

Students with a timid score below average and above average had different OD scores (0.13). For the P variable, the difference was only 0.05, while the AF variable had no difference, and the difference for the CT variable was only 0.01. The Pearson Chi-Square and Likelihood ratios for the OD variable were 29.37 and 37.46. The P variable's Pearson Chi-Square and Likelihood ratios were 24.62 and 31.06, respectively. The AF variable's Pearson Chi-Square and Likelihood ratios were 26.79 and 33.70. The Pearson Chi-Square and Likelihood Ratios for the CT variable were 34.26 and 45.42.

2. Discussion

This study revealed that explicit vocabulary instruction effectively increased students' vocabulary. This finding aligns with previous research, which mentioned explicit instruction has proven effective when the students are exposed to word and implicit information about word meaning (Bowne et al., 2017). Other scholars stated explicit vocabulary

instruction during shared reading could effectively teach receptive vocabulary to students with complex communication needs (Yorke et al., 2018). This is possible because explicit vocabulary instruction emphasizes three cognitive aspects (vocalization, writing rehearsal, and word cards) and three memory strategies involving deeper processing (imagery strategies, association, and mnemonics) (Little & Kobayashi, 2015). In this technique, the sound produced through vocalizing activity connects the words and objects, facilitating learning (Goldstein et al., 2010).

In applying explicit vocabulary instruction, a well-balanced program incorporating learning and practicing vocabulary through meaning, the focus is crucial (Mirzaii, 2018) because teaching vocabulary in an EFL context can be challenging due to the lack of second language input (Siyanova-Chanturia & Webb, 2016). In addition, vocabulary instruction is crucial because it is the critical element of reading comprehension and is often addressed insufficiently (Gallagher & Anderson, 2016). Thus, teaching vocabulary needs preparation and planning. The teacher must ensure that students use their time to learn the word and get involved in the activity, facilitating vocabulary learning. Additionally, the instruction goal must be arranged at the beginning of the lesson, and students should be aware of those goals (Webb & Nation, 2018) through intensive practice or spaced practice impacting vocabulary gain (Serrano & Huang, 2018). Concerning the use of a dictionary, students are recommended to use it because it will help them learn quickly (Luppescu & Day, 1993)

The second research question highlights the impact of direct vocabulary teaching on reading comprehension. The findings revealed explicit vocabulary instruction facilitates reading comprehension. It occurred because vocabulary is essential to reading instruction across primary and secondary levels (Taylor et al., 2009). Research related to explicit vocabulary instruction claims that 8 % of core reading instructions in the class were related to direct/explicit vocabulary instruction, focusing on word definitions and examples (Wanzek, 2014). It aligns with the theory stating that vocabulary is the key to reading comprehension and must be the focus of every teacher (Wessels, 2011). Students need vocabulary learning strategies to link motivation and vocabulary (Y. Zhang et al., 2017). Discussing low-frequency words was suggested, enhancing students' vocabulary and providing a base for reading achievement (Dickinson et al., 1993).

Regarding this finding, several studies have discussed the same topic. Research on contextualized vocabulary instruction found it benefited the students' reading comprehension (Taboada & Rutherford, 2011). Additionally, explicit vocabulary instruction applied through storybook reading positively affects vocabulary acquisition (van den Berg & Klapwijk, 2020). The other researcher researched reading comprehension instruction completed with

cultural materials that positively contributed to the learner's vocabulary knowledge and attitudes toward English lessons (Altin et al., 2018).

CONCLUSION

Explicit vocabulary research is designed to discover the effect of vocabulary intervention on students with vocabulary difficulties. The finding revealed the moderate effect of explicit instruction on students' vocabulary knowledge and reading comprehension. Besides, this study also discovered the quality of English vocabulary used in the context of words students learned through the experiment process. Students in the experiment group wrote better sentences, indicating that learning vocabulary influences other skills, such as writing. However, it must be acknowledged that this study has limitations in providing a comprehensive understanding of how implementing explicit instruction can have a maximum impact on students' vocabulary. Therefore, further study should investigate how to maximize the effect of explicit instruction on students' vocabulary.

REFERENCES

Altin, M., Saracaloğlu, A. S., & Boylan, M. (2018). Effect of reading comprehension instruction enriched with cultural materials on English learning. *Cogent Education*, *5*(1), 1475589. https://doi.org/10.1080/2331186X.2018.1475589

Anderson, B. E., & Gallagher, M. A. (2019). Responsive Professional Development for Vocabulary Instruction. *Https://Doi.Org/10.1080/01626620.2019.1616632*. https://doi.org/10.1080/01626620.2019.1616632

Archer, A. L., & Charles A HUges. (2011). Explicit Instruction : Effective and efficient teaching. *Journal of Technology Education*.

Baker, D. L., Azcarrága, M. G., Pilar, M., Correa, P., Lepe-martinez, N., & Smolkowski, K. (2019). Exploring the Effects of a Spanish Vocabulary Intervention to Teach Words in Depth to Second-Grade Students in Chile. *Reading & Writing Quarterly*, *35*(3), 204–224. https://doi.org/10.1080/10573569.2018.1523763

Baker, D. L., Basaraba, D. L., Smolkowski, K., Conry, J., Hautala, J., Richardson, U., English, S., & Cole, R. (2017). Exploring the cross-linguistic transfer of reading skills in Spanish to English in the context of a computer adaptive reading intervention. *Bilingual Research Journal*, *40*(2), 222–239. https://doi.org/10.1080/15235882.2017.1309719

Baldwin, S. A., Bauer, D. J., Stice, E., & Rohde, P. (2011). *Evaluating Models for Partially Clustered Designs*. *16*(2), 149–165. https://doi.org/10.1037/a0023464

Beck, I. L., Mckeown, M. G., & Kucan, L. (2013). *Bringing words to life: Robust vocabulary instruction (2nd ed.)*. Guilford.

Blamey, K. L., Beauchat, K. A., & Sweetman, H. (2012). Supporting Preschool Teachers' Vocabulary Instruction During Storybook Reading. *NHSA Dialog*, *15*(3), 233–245. https://doi.org/10.1080/15240754.2012.666686

Bowne, J. B., Yoshikawa, H., & Snow, C. E. (2017). Relationships of Teachers' Language and Explicit Vocabulary Instruction to Students'

Vocabulary Growth in Kindergarten. *Reading Research Quarterly*, *52*(1), 7–29. https://doi.org/10.1002/rrq.151

Brown, P. L., & Concannon, J. P. (2016). Students' perceptions of vocabulary knowledge and learning in a middle school science classroom. *International Journal of Science Education*, *38*(3), 391–408. https://doi.org/10.1080/09500693.2016.1143571

Carrier, S. J. (2013). Elementary Preservice Teachers' Science Vocabulary: Knowledge and Application. *Journal of Science Teacher Education*, *24*(2), 405–425. https://doi.org/10.1007/s10972-012-9270-7

Christ, T., Chiu, M. M., Currie, A., & Cipielewski, J. (2014). The Relation Between Test Formats and Kindergarteners' Expressions of Vocabulary Knowledge. *Reading Psychology*, *35*(6), 499–528. https://doi.org/10.1080/02702711.2012.746249

Coyne, M. D., Betsy McCoach, D., Loftus, S., Zipoli, R., Ruby, M., Crevecoeur, Y. C., & Kapp, S. (2010). Direct and extended vocabulary instruction in Kindergarten: Investigating transfer effects. *Journal of Research on Educational Effectiveness*, *3*(2), 93–120. https://doi.org/10.1080/19345741003592410

Cromley, J. G., & Azevedo, R. (2007). *Testing and Refining the Direct and Inferential Mediation Model of Reading Comprehension*. *99*(2), 311–325. https://doi.org/10.1037/0022-0663.99.2.311

Cunningham, A. E., & Stanovich, K. E. (1997). *Early Reading Acquisition and Its Relation to Reading Experience and Ability 10 Years Later*. *33*(6), 934–945.

Cuticelli, M., Coyne, M. D., Ware, S. M., Oldham, A., & Loftus Rattan, S. (2015). Improving Vocabulary Skills of Kindergarten Students Through a Multi-Tier Instructional Approach. *Intervention in School and Clinic*, *50*(3), 150–156. https://doi.org/10.1177/1053451214542041

Dickinson, D. K., Cote, L., & Smith, M. W. (1993). Learning vocabulary in preschool: Social and discourse contexts affecting vocabulary growth. *New Directions for Child and Adolescent Development*, *1993*(61), 67–78. https://doi.org/10.1002/cd.23219936106

Dunn, L. M., & M, D. D. (2007). *PPVT-4 Manual. 0*(0). https://doi.org/10.1080/09588221.2018.1542407

Elleman, A. M., Lindo, E. J., Morphy, P., & Compton, D. L. (2009). The Impact of Vocabulary Instruction on Passage-Level Comprehension of School-Age Children: A Meta-Analysis. *Journal of Research on Educational Effectiveness*, *2*(1), 1–44. https://doi.org/10.1080/19345740802539200

Flanigan, K., Templeton, S., & Hayes, L. (2012). What's in a Word? Using Content Vocabulary to *Generate* Growth in General Academic Vocabulary Knowledge. *Journal of Adolescent & Adult Literacy*, *56*(2), 132–140. https://doi.org/10.1002/JAAL.00114

Gallagher, M. A., & Anderson, B. E. (2016). Get All "Jazzed Up" for Vocabulary Instruction: Strategies That Engage. *The Reading Teacher*, *70*(3), 273–282. https://doi.org/10.1002/trtr.1498

Goldstein, M. H., Schwade, J., Briesch, J., & Syal, S. (2010). Learning While Babbling: Prelinguistic Object-Directed Vocalizations Indicate a Readiness to Learn. *Infancy*,

15(4), 362–391. https://doi.org/10.1111/j.1532-7078.2009.00020.x

Hadley, E. B., Dickinson, D. K., Hirsh-Pasek, K., & Golinkoff, R. M. (2019). Building Semantic Networks: The Impact of a Vocabulary Intervention on Preschoolers' Depth of Word Knowledge. *Reading Research Quarterly*, *54*(1), 41–61. https://doi.org/10.1002/rrq.225

Hanson, S., & Padua, J. F. M. (2011). *Effective Instructional Strategies Series Pacific Resources for Education and Learning Teaching Vocabulary Explicitly*.

Hart, B. B., & Risley, T. R. (2003). *The early catastrophe: The 130 million word gap by age 3.* American. Educator, Spring.

Hassinger-Das, B., Ridge, K., Parker, A., Golinkoff, R. M., Hirsh-Pasek, K., & Dickinson, D. K. (2016). Building Vocabulary Knowledge in Preschoolers Through Shared Book Reading and Gameplay. *Mind, Brain, and Education*, *10*(2), 71–80. https://doi.org/10.1111/mbe.12103

Heijltjes, A., van Gog, T., & Paas, F. (2014). Improving Students' Critical Thinking: Empirical Support for Explicit Instructions Combined with Practice. *Applied Cognitive Psychology*, *28*(4), 518–530. https://doi.org/10.1002/acp.3025

Johnson, M. D., Acevedo, A., & Mercado, L. (2016). Vocabulary Knowledge and Vocabulary Use in Second Language Writing. *TESOL Journal*, *7*(3), 700–715. https://doi.org/10.1002/tesj.238

Kim, M., Crossley, S. A., & Kim, B. K. (2020). Second language reading and writing in relation to first language, vocabulary knowledge, and learning backgrounds. *International Journal of Bilingual Education and Bilingualism*. https://doi.org/10.1080/13670050.2020.1838434

Lau, C., & Rao, N. (2013). English vocabulary instruction in six early childhood classrooms in Hong Kong. *Http://Dx.Doi.Org/10.1080/03004430.2013.788815*. https://doi.org/10.1080/03004430.2013.788815

Little, A., & Kobayashi, K. (2015). Vocabulary Learning Strategies of Japanese Life Science Students. *TESOL Journal*, *6*(1), 81–111. https://doi.org/10.1002/tesj.141

Luppescu, S., & Day, R. R. (1993). Reading, Dictionaries, and Vocabulary Learning. *Language Learning*, *43*(2), 263–279. https://doi.org/10.1111/j.1467-1770.1992.tb00717.x

Marulis, Loren M., & Neuman, S. B. (2010). The Effects of Vocabulary Intervention on Young Children's Word Learning. *Review of Educational Research*, *80*(3), 300–335. https://doi.org/10.3102/0034654310377087

Marulis, Loren Marie, & Neuman, S. B. (2013). How Vocabulary Interventions Affect Young Children at Risk: A Meta-Analytic Review. In *Journal of Research on Educational Effectiveness* (Vol. 6, Issue 3, pp. 223–262). Taylor & Francis Group. https://doi.org/10.1080/19345747.2012.755591

Mckeown, M. G., Beck, I. L., Omanson, R. C., & Charles, A. (1983). *The effects of long-term vocabulary instruction on reading comprehension: A replication.* Journal of Reading Behavior, 15, 3–18. https://doi.org/10.1080/10862968309547474

Mcmanus, K., & Marsden, E. (2019). Using Explicit Instruction About L1 to Reduce Crosslinguistic Effects in L2 Grammar Learning: Evidence From Oral Production in

L2 French. *Modern Language Journal*, *103*(2), 459–480. https://doi.org/10.1111/modl.12567

Mirzaii, M. (2018). Teaching Vocabulary for PET. In *The TESOL Encyclopedia of English Language Teaching* (pp. 1–7). John Wiley & Sons, Inc. https://doi.org/10.1002/9781118784235.eelt0763

Mori, Y., & Calder, T. M. (2013). Bilingual Vocabulary Knowledge and Arrival Age Among Japanese Heritage Language Students at *Hoshuukoo*. *Foreign Language Annals*, *46*(2), 290–310. https://doi.org/10.1111/flan.12027

Murray, D. M., & Sherri, P. (2004). *Design and Analysis of Group-Randomized Trials : A Review of Recent Methodological Developments*. *94*(3), 423–432.

Nagy, W. E., Anderson, R. C., & Anderson, R. C. (2014). *How many words are there in printed school English ? 19*(3), 304–330.

Nation, I. S. P. (2001). *Learning Vocabulary in Another Language*. Cambridge, England: Cambridge University Press.

Parsons, A. W., & Bryant, C. L. (2016). Deepening kindergarteners' science vocabulary: A design study. *Journal of Educational Research*, *109*(4), 375–390. https://doi.org/10.1080/00220671.2014.968913

Peters, E., Noreillie, A., Heylen, K., Bulté, B., & Desmet, P. (2019). The Impact of Instruction and Out-of-School Exposure to Foreign Language Input on Learners' Vocabulary Knowledge in Two Languages. *Language Learning*, *69*(3), 747–782. https://doi.org/10.1111/lang.12351

Qian, D. D. (2002). Investigating the relationship between vocabulary knowledge and academic reading performance: An assessment perspective. *Language Learning*, *52*(3), 513–536. https://doi.org/10.1111/1467-9922.00193

Roberts, C., & Roberts, S. A. (2005). *Design and analysis of clinical trials with clustering effects due to treatment*.

Serrano, R., & Huang, H.-Y. (2018). Learning Vocabulary Through Assisted Repeated Reading: How Much Time Should There Be Between Repetitions of the Same Text? *TESOL Quarterly*, *52*(4), 971–994. https://doi.org/10.1002/tesq.445

Shen, H.-J. (2003). The Role of Explicit Instruction in ESL/EFL Reading. *Foreign Language Annals*, *36*(3), 424–433. https://doi.org/10.1111/j.1944-9720.2003.tb02124.x

Siyanova-Chanturia, A., & Webb, S. (2016). *Teaching vocabulary in the EFL Context* (pp. 227–239). Springer, Cham. https://doi.org/10.1007/978-3-319-38834-2_16

Sylvester, R., Kragler, S., & Liontas, J. (2014). Vocabulary Instruction for Young, Diverse Learners. *Childhood Education*, *90*(6), 434–445. https://doi.org/10.1080/00094056.2014.982977

Taboada, A., & Rutherford, V. (2011). Developing reading comprehension and academic vocabulary for English language learners through science content: A formative experiment. *Reading Psychology*, *32*(2), 113–157. https://doi.org/10.1080/02702711003604468

Taylor, D. B., Mraz, M., Nichols, W. D., Rickelman, R. J., & Wood, K. D. (2009). Using explicit instruction to promote vocabulary learning for struggling readers. *Reading and Writing Quarterly*, *25*(2–3), 205–220.

https://doi.org/10.1080/10573560802683663

Tereshchenko, A., Francis, B., Archer, L., Hodgen, J., Mazenod, A., Taylor, B., Pepper, D., & Travers, M.-C. (2019). Learners' attitudes to mixed-attainment grouping: examining the views of students of high, middle and low attainment. *Research Papers in Education*, *34*(4), 425–444. https://doi.org/10.1080/02671522.2018.1452962

Uchihara, T., & Saito, K. (2019). Exploring the relationship between productive vocabulary knowledge and second language oral ability. *Language Learning Journal*, *47*(1), 64–75. https://doi.org/10.1080/09571736.2016.1191527

van den Berg, L., & Klapwijk, N. (2020). The Impact of Second-Language Storybook Reading on the Vocabulary Acquisition of Grade 1 Learners. *Language Matters*, *51*(1), 63–85. https://doi.org/10.1080/10228195.2019.1657488

Wanzek, J. (2014). Building Word Knowledge: Opportunities for Direct Vocabulary Instruction in General Education for Students With Reading Difficulties. *Reading and Writing Quarterly*, *30*(2), 139–164. https://doi.org/10.1080/10573569.2013.789786

Webb, S. (2012). Depth of Vocabulary Knowledge. In *The Encyclopedia of Applied Linguistics*. Blackwell Publishing Ltd. https://doi.org/10.1002/9781405198431.wbeal1325

Webb, S., & Nation, P. (2018). Teaching Vocabulary. In *The Encyclopedia of Applied Linguistics* (pp. 1–7). Wiley. https://doi.org/10.1002/9781405198431.wbeal1177.pub2

Wessels, S. (2011). Promoting vocabulary learning for English learners. *The Reading Teacher*, *65*(1), 46–50. https://doi.org/10.1598/RT.65.1.6

Xin, J. F., & L. Affrunti, R. (2019). Using iPads in Vocabulary Instruction for English Language Learners. *Computers in the Schools*, *36*(1), 69–82. https://doi.org/10.1080/07380569.2019.1565888

Yorke, A. M., Light, J. C., Gosnell Caron, J., McNaughton, D. B., & Drager, K. D. R. (2018). The effects of explicit instruction in academic vocabulary during shared book reading on the receptive vocabulary of children with complex communication needs. *AAC: Augmentative and Alternative Communication*, *34*(4), 288–300. https://doi.org/10.1080/07434618.2018.1506823

Zhang, P., & Graham, S. (2020). Learning Vocabulary Through Listening: The Role of Vocabulary Knowledge and Listening Proficiency. *Language Learning*, *70*(4), 1017–1053. https://doi.org/10.1111/lang.12411

ZHANG, X., & LU, X. (2015). The Relationship Between Vocabulary Learning Strategies and Breadth and Depth of Vocabulary Knowledge. *The Modern Language Journal*, *99*(4), 740–753. https://doi.org/10.1111/modl.12277

Zhang, Y., Lin, C.-H., Zhang, D., & Choi, Y. (2017). Motivation, strategy, and English as a foreign language vocabulary learning: A structural equation modelling study. *British Journal of Educational Psychology*, *87*(1), 57–74. https://doi.org/10.1111/bjep.12135