THE EFFECT OF VISUAL SCAFFOLDING STRATEGY TOWARDS STUDENTS' VOCABULARY MASTERY AT THE FIFTH GRADE OF SDN 087981 SIBOLGA

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ABSTRACT

This study investigated the impact of Visual Scaffolding Strategy on vocabulary mastery among fifth grade students at SDN 087981 Sibolga. Utilizing a pre-experimental design, the study involved 21 students who participated in six sessions, including a pre-test, four treatment sessions, and a post-test. The findings revealed a significant improvement in vocabulary scores, with the mean score increasing from 54.76 on the pre-test to 85.75 on the post-test, resulting in an increase of 30.99. Statistical analysis confirmed that the t-test value (32.1) exceeded the critical t-table value (8.40), indicating that Visual Scaffolding Strategy effectively improved vocabulary mastery in this educational context. Consequently, the null hypothesis was rejected, confirming the positive effect of the strategy on students' learning outcomes.

Keywords: Visual Scaffolding Strategy, Vocabulary Mastery

ABSTRAK

Penelitian ini menyelidiki dampak Strategi Perancah Visual terhadap penguasaan kosakata di antara siswa kelas lima di SDN 087981 Sibolga. Dengan menggunakan desain pra-eksperimen, penelitian ini melibatkan 21 siswa yang berpartisipasi dalam enam sesi, termasuk pre-test, empat sesi perlakuan, dan post-test. Temuan penelitian menunjukkan adanya peningkatan yang signifikan dalam nilai kosakata, dengan nilai rata-rata meningkat dari 54,76 pada pre-test menjadi 85,75 pada post-test, yang menghasilkan peningkatan sebesar 30,99. Analisis statistik mengkonfirmasi bahwa nilai t-test (32,1) melebihi nilai t-tabel kritis (8,40), yang menunjukkan bahwa Strategi Perancah Visual secara efektif meningkatkan penguasaan kosakata dalam konteks pendidikan ini. Oleh karena itu, hipotesis nol ditolak, yang mengkonfirmasi efek positif dari strategi ini terhadap hasil belajar siswa.

Kata Kunci: Strategi Perancah Visual, Penguasaan Kosakata

A. Pendahuluan

Vocabulary is a basic element for students in learning a foreign language that is integrated into English skills. Students who have a lot of vocabulary will make be easier to build good communication and to learn other aspects of learning English (Sakti, et al, 2023). Vocabulary is an important part of

English language learning, it will act as a basis for understanding 4 speaking skills, namely listening, reading, speaking, and writing (Irwandi, et al, 2020). For Harmer (2019), vocabulary is the basis of language, and without sufficient vocabulary, students will have difficulty speaking efficiently in English, making it difficult to organize meaningful words. Vocabulary skills are very important for students who will learn English as a second language, they will need repeated exposure and guidance in order to remember efficiently.

The research of the introduction will be tried at SDN 087981 Sibolga to recognize some of the challenges that will be experienced by category 5 students in getting vocabulary. Many students have difficulty in mastering and using the latest English words, often using Indonesian when responding in the category. Not only that, they show a tendency to remember vocabulary for a while but quickly forget it due to the lack of reinforcement and effective application. Teachers also report that students often ask the meaning of words during lessons, and their vocabulary test scores are generally always low. This problem proves the need for a teaching strategy that is more interesting and efficient.

One such strategy is Visual Scaffolding, developed by Herrell and Jordan (2004), which incorporates visual aids such as pictures, charts, and vivid subjects to enhance vocabulary comprehension. Research by Herdiana and Munir (2023) suggests that visual scaffolding helps students to recall new vocabulary from meaningful pictures, thereby improving memory and self-learning. Similarly, Wahid, et al, (2024) found that students responded positively to visual scaffolding, as it made vocabulary learning more interactive and relevant. By incorporating these strategies, teachers can increase students' motivation and ability to acquire and retain vocabulary, ultimately improving their English language skills.

B. Review Of Related Literature

1. Vocabulary mastery

Related literature review states that vocabulary is a key aspect in English language learning. Vocabulary plays a significant role in improving listening, speaking, reading, and writing skills (Dwi, 2017). Qi Pan and Runjiang Xu emphasize that vocabulary, along with sounds and language rules, forms a core part of language acquisition. However, Teaching vocabulary can help the students to understand and communicate with others in English. (Syafitri, at al, 2023). Darmawan and Fatmawati (2019) emphasize that teaching methods will continue to contribute to students' difficulties in vocabulary skills. To improve vocabulary learning, teachers need effective strategies that will support long-term memory and effective application. The importance of vocabulary in learning a foreign language cannot be overstated. Learners will make significant progress if they memorize

a large number of words and expressions (Melani, et al, 2023).

For Nation (2001), vocabulary consists of 3 important aspects: form, meaning, and usage. Form relates the elements of speech and written, and the form of speech (prefixes, stems, suffixes). The second aspect, meaning, refers to the semantic ties that exist between words, such as synonyms, antonyms, and associative facial expressions (Harmer). The third aspect, usage, includes the use of language rules, collocations, and contextual constraints. Thornbury (2002) classifies vocabulary into nouns, action words, character words, explanatory words, prepositions, and conjunctions, each of which has a different linguistic function . This aspect of competence allows students to master and create language efficiently in various situations.

Vocabulary instruction must be informed by a set of principles if it is to be effective. According to Nation (2005), vocabulary instruction must be simple, connected to prior knowledge, and presented in spoken and written form. The teaching of high-frequency words should be prioritized, and unfamiliar words should be avoided to avoid confusion. In addition, Welliam Hamer and Ledy Nur Lely (2019) emphasize that a strong vocabulary base will enhance language skills, by providing a clear understanding of spoken and written text, and allowing students to express themselves easily.

Furthermore, Komachali and Khodareza emphasize the important role of vocabulary in understanding the four language skills, emphasizing that vocabulary knowledge will not be enough to limit language skills in a total way. Sometimes people want to say or give response from what they listen but someone peoples feel confused and do not understand what they will say because their vocabulary is still low, it means that vocabulary is much improving in oral, without word communication cannot run well. So if students study hard, they will not get difficulties in listening, reading, writing especially in speaking. If students know the meaning of words widely, they will improve their speaking easier (Dewi, et al. 2022).

Vocabulary assessment is essential for assessing the description and creation of learners. Madsen (1983) identified four main types of vocabulary tests: limited response, multiple-choice completion, multiple-choice paraphrasing, and simple completion. Multiple-choice completion has been found to be very effective for students with reading skills, as it encourages contextual learning while ensuring fair assessment (Hamer & Lely, 2019). Although multiple-choice completion has advantages, such as ease of assessment and reduced memorization, the test design must ensure clarity and minimize response transfer (Nur Lely, 2020). This assessment has been found to be an effective method for measuring students' vocabulary competence, thereby guiding teachers in selecting

appropriate teaching methods to improve vocabulary acquisition (Nur Lely, 2020).

2. Visual Scaffolding Strategy

a. Definition

Visual scaffolding is an approach in which the language used in instruction is made more understandable by showing pictures or drawings that allow students to associate spoken English words with the visual images shown (Echevarria, Vogt & Short, 2010a; Greenberg, 2008). To use this strategy, teachers create visual and digital files, such as pictures or drawings, that are easily accessible for instruction. Drawings, sketches, and even hand-drawn images can provide visual support for a variety of content and vocabulary concepts and can create conceptual frameworks (Echevarria, Vogt & Short, 2010b). In addition to visual representations, actions used by teachers can greatly support student learning. The purpose of the actions should be taught in advance and used consistently (Díaz-Rico, 2013).

b. Visual Scaffolding Procedure

Adrienne L. Herrell, 2016. The steps in programming and applying visual scaffolding are as follows:

1) Recognizing vocabulary—Recognizing specific vocabulary to be taught in a lesson can be helped by visual images, such as paintings or pictures.
2) Collect visuals—Find (or create) pictures or line drawings that can be used to support the visual vocabulary your students will need to master the lesson. Use the Internet to find pictures that can be combined into a “visual file” on your computer for future use.
3) Reproducing and organizing visuals— Reproducing visuals on film for use on an overhead projector or recording them as digital files can be easily done on a digital projector or interactive notepad during the lesson. Arranging them in sequential order works well for specific lessons, but you may want to organize your files of images in alphabetical order so you can easily access them for later lessons. Since the images to be projected on an overhead projector do not have to be large, they can be placed in a shoebox or binder for easy access.
4) Involve students—Encourage students to use the image files in their submissions as a way to encourage them to ask and discuss questions. They can even be taught to help create or use photo dictionaries in the category on the computer.
5) Build an archive—Continue to build your archive in a sustainable manner. Involve students in creating drawings to add to your archive and your drawing dictionary .

Visual scaffolding (Adrienne L. Herrell, 2016) explains that instruction:

1) Pre-teaching Activities

a) Introduction of vocabulary: Make sure the vocabulary of objects and animal names will be taught, such as fish, dog, table, chair, and eraser. Focus on words that can be connected to visuals.

b) Collect visuals: Find a painting or picture that matches the vocabulary. You can download paintings from the internet, draw your own, or use clip art to create a visual archive. Illustrations: a painting of a fish for a fish, or a painting of a table for a table.
c) Reproduce and organize visuals: Arrange the paintings according to the lesson niche. For example, start with small animals such as "fish" and "dogs", then move on to category subjects such as "chairs" and "tables". Use digital formats (PowerPoint, PDF) or print the paintings for an overhead projector.
2. Guiding Activities (Saying names and names of animals)
a) Use visuals to teach vocabulary: Show a picture on a screen or interactive display. For example, show a picture of a dog and ask, "What is this?" Lead the student to respond, "This is a dog." Continue with other animals or subjects.
b) Involve students in dialogue: Encourage students to respond to problems or exchange ideas. For example:
1) Show a painting of a cat and ask, What color is this fish?
2) Show a picture of a bench and ask, Where do we use a bench?
c) Include comparing activities: Use pictures and words on cards to compare. Students are asked to match the picture (e.g. dog) with the word that matches (dog).
3. Activities after teaching
a) Involve students: Share group activities such as using visual files for presentations. Students can show the picture and ask their friends to guess which word will match. For example: "What is this?" (showing the picture of a fish).
b) For photo dictionaries in the category: Encourage students to create photo dictionaries in the category. Illustration: stamp a dog painting, write down the word dog below it, and save it in a binder or digital archive so it can be accessed together.

Share innovative assignments: Share assignments such as drawing a favorite animal or subject and writing a short sentence about it. Example: draw a fish and write, "This is a fish. It can swim ."

C. Metode Penelitian

This research uses a quantitative approach to test the effects of Visual Scaffolding Strategy on English vocabulary acquisition of grade 5 students at SDN 087981 Sibolga. By using the pre-experimental one-group pretest-posttest concept, this study measures students' vocabulary before and after treatment without any control group. According to Arikunto (2013: capacity), the research method categorizes the experimental concept for its level of accuracy, while Sugiyono (2014: 109) explains that the pre-experimental concept only involves one group to receive early and late tests to observe changes. Although considered as imaginary research, this concept provides an analysis of the effects of intervention,

although there are limitations in experimental control.

The population in this study is students of category V SDN 087981 Sibolga will be 43 people. For Sugiyono, the population is meant as an abstraction area consisting of subjects or points that have special identities that will be formalized by researchers to be monitored and obtained finally (Sugiyono, 2015). Determination of illustrations tried by purposive sampling method will for Sugiyono is a method of collecting illustrations will be based on special considerations (Sugiyono, 2015). The research focused on category 5B (21 students) as the research group because the results of their learning and motivation will be small, according to the advice of the examiner and English teacher. This group was selected to study the effects of the Visual Scaffolding Strategy in improving English vocabulary skills.

The research instrument used in this study is a multiple-choice test consisting of 20 questions, designed carefully to measure students' vocabulary skills. This test is given in 2 steps: pre-test (before treatment) and post-test (after treatment), to assess the efficacy of the Visual Scaffolding Strategy in providing training. Multiple-choice tests are a reliable method for assessing multiple perspectives, with one correct answer and a distraction to consider students' descriptions.

According to Arikunto's statement, a test must meet 2 main criteria: validity and reliability. Validity ensures that the test measures what it should measure, and this research uses content validity, by emphasizing the suitability between the test content and the training module. To ensure validity, the test was reviewed by experts, including lecturers from the English Language Learning Division of UIN Bukittinggi and English teachers at SDN 087981 Sibolga.

Table 1. Level of Validity

Content Validity Criteria	
0.8-1	Very High
0.6-0.79	High
0.40-0.59	Medium
0.20-0.39	Low
0.00-0.19	Very Low

Table 2. The Result Content Validity Using Index Aiken

Butir	Validator						∑S			
	I	II	III	S1	S2	S3		n(c-1)	V	Keterangan
Butir 1	4	4	4	3	3	3	9	12	0,75	HIGH
Butir 2	4	4	4	3	3	3	9	12	0,75	HIGH
Butir 3	4	4	4	3	3	3	9	12	0,75	HIGH
Butir 4	4	4	4	3	3	3	9	12	0,75	HIGH
Butir 5	4	4	3	3	3	2	8	12	0,666667	HIGH
Butir 6	4	4	4	3	3	3	9	12	0,75	HIGH
Butir 7	4	4	3	3	3	2	8	12	0,666667	HIGH
Butir 8	4	4	3	3	3	2	8	12	0,666667	HIGH
Butir 9	4	4	3	3	3	2	8	12	0,666667	HIGH
Butir 10	4	4	3	3	3	2	8	12	0,666667	HIGH
Butir 11	3	3	4	2	2	3	7	12	0,583333	HIGH
Butir 12	3	3	4	2	2	3	7	12	0,583333	HIGH
Butir 13	3	3	3	2	2	2	6	12	0,5	MEDIUM
Butir 14	3	3	3	2	2	2	6	12	0,5	MEDIUM
Butir 15	3	3	4	2	2	3	7	12	0,583333	HIGH
Butir 16	4	3	4	3	2	3	8	12	0,666667	HIGH
Butir 17	4	3	3	3	2	2	7	12	0,583333	HIGH
Butir 18	4	3	3	3	2	2	7	12	0,583333	HIGH
Butir 19	4	3	3	3	2	2	7	12	0,583333	HIGH
Butir 20	4	3	3	3	2	2	7	12	0,583333	HIGH

		Validator							
Butir	I	II	III	s1	s2	s3	∑S	V	Keterangan
Butir 1-20	75	70	69	55	50	49	154	0,641667	HIGH

Determination of reliability experiment, if the Cronbach Alpha coefficient number is greater than reliable until the test is claimed to be reliable. Conversely if the Cronbach Alpha coefficient is smaller than reliable until the test is claimed to be unreliable. Conclusion of reliability of all reliable tests. The test has a high reliability. Researchers use the KR 20 method as follows.

$r^{11} = \frac{n}{n-1}\left(\frac{S^2-\sum pq}{S^2}\right)$

Where:

r^{11}= Overall test reliability.

p = Proportion of subjects who will answer the item correctly.

q = Proportion of subjects who will answer the item incorrectly (q=1 - p).

$\sum pq$= The sum of the results of multiplying p and q.

n = Number of items

S^2= Standard deviation of the test (standard deviation is the square root of the variance).

Table 3. Reliability Level

NO	Reliability	Reliability Level
1	>0.90	Very Very Reliable
2	0.80-0.90	Very Reliable
3	0.70-0.79	Being Reliable
4	0.60-0.69	Low Reliability
5	<0.60	Very Low Reliability

Base: D. George, D and Meter. Mallery on Using SPSS for Windows step by step: simple guidance and references.

a. Results of Pre-Test and Post-Test Reliability Analysis

In this research, we want to analyze the reliability of the pre-test and post-test based on the information to be submitted. We want to divide the Cronbach Alpha number using the KR 20 method and determine the level of reliability of the two tests.

Pre-Test

Number of students: 21

Number Distribution:

1) Very good: 2 students (9.52%)
2) Good: 3 students (14.28%)
3) Fair: 2 students (9.52%)
4) Not good: 11 students (52.38%)
5) Very Poor: 3 students (14.28%)

Post-Test

Number of students: 20

Number Distribution:

1) Very good: 14 students (70%)
2) Good: 5 students (25%)
3) Balanced:-
4) Poor:-
5) Very Poor: 1 student (5%)

b. Dividing the ratio p and q for the pre-test

The ratio of p (correct answer) and q (wrong answer) is based on the type of number to be submitted.

1) Category Classification:

"Very Good" and 'Good' are correct answers, whereas 'Not good' and 'Very Poor' are incorrect answers.

2) Divide p and q:

The number of students who will respond correctly: Very Good + Good = 2 + 3 = 5

The number of students who will respond incorrectly: Poor + Very Poor = 11 + 3 = 14 Then:

P = $\frac{5}{21}$= 0.238

Q = $\frac{14}{21}$= 0.667

a) Calculate ∑ pq :
∑ pq = p×q = 0.238×0.667 = 0.158
b) Calculating r^11 for Pre-Test
Using the K-R20 formula:
r^{11}= $\frac{20}{20-1}$($\frac{192,0-0,158}{192,0}$) = $\frac{20}{19}$(0.999) = 1.051

a. Calculating the Proportion of p and q for Post-Test

1) Score Categorization:

The correct answer would be: Very Good + Good = 14 + 5 = 19
The answer will be wrong: Very Bad = 1

2) Calculate p and q:

Number of students who will answer correctly = 19
Number of students who will answer wrong = 1
Then:

P = $\frac{19}{20}$= 0.95
Q = $\frac{1}{20}$= 0.05

3) Calculate ∑ pq:

∑ pq = p×q = 0.95×0.05 = 0.0475

Calculating r^11 for Post-Test

4) Using the K-R20 formula:
r^{11}= $\frac{20}{20-1}$($\frac{231,8-0,0475}{231,8}$) = $\frac{20}{19}$(0.999) = 1.051
Pre-Exam
Cronbach Alpha Value:
r^{11}= 1,051
Reliability Level: Very High (>0.90)
Post-Exam
Cronbach Alpha Value:
r^{11}= 1,051
Reliability Level: Very High (>0.90)
Final Conclusion

Both the pre-test and post-test showed a very high level of reliability with Cronbach Alpha values above the specified limit (>0.90). This shows that both tests can be considered very reliable in measuring students' abilities.

Data collection technique

In this research, the information will be combined by using a test. The test is given twice (pretest and posttest) to students to identify students' vocabulary skills. The results of the pretest and posttest are used as information for this research:

a. Pretest is a way to measure the number of students' vocabulary before giving treatment to students. Researchers provide early tests on one category to be selected as an illustration. Early tests are intended to identify the number of students' vocabulary before giving treatment.
b. Treatment is a way of elastic application of research categories to identify the increase in student skills. Treatment in this training uses the Visual Scaffolding Strategy which will be submitted by researchers for research categories.
c. Posttest is a way of measuring the vocabulary numbers of students after the students are given treatment to see the results. The final test is given on one category of research by the researcher at the last meeting to identify the effects of using the Visual Scaffolding Strategy on students' vocabulary skills .

C. Hasil Penelitian dan Pembahasan

Research results This review about grouping pre-test and post-test

numbers of students, waves as well as percentage number students, numbers on generally as well as deviation base pre-test and post-test scores, and testing assumption. Next This is results research:

Pre - Test Score Student

Early test results respond question option double child educate Category V SDN 087981 Sibolga tabulated as furthermore :

Table 4. The Students' Score of Pre-Test

No	Name	Score	Classification
1	Ersin Wilian Harefa	80	Excellent
2	Jesica Okta Friyanti	45	Poor
3	Celsea Aura Kristia Hutagalung	60	Fair
4	Syakilah Ismy Telaumbenua	90	Excellent
5	Mesrawati Laia	75	Good
6	Devi Fitri Hutauruk	55	Poor
7	Pasrah Halawa	60	Fair
8	Dianra Pratama Duha	70	Good
9	Suliani Giawa	75	Good
10	Jeremi Wilker Hutapea	30	Very Poor
11	Vicy Pratama Sianipar	55	Poor
12	Ridwan Pulungan	50	Poor
13	Leticia Earlene Octavia	0	Very Poor
14	Juliana Manurung	55	Poor
15	Reyhan Halomoan Pasaribu	50	Poor
16	Reyhan Hasrat Gea	55	Poor
17	Alfa Immanuel Fatemalua	55	Poor
18	Dafa Ibnu Havis Nasution	50	Poor
19	Kiadius Rafiaman Ndraha	55	Poor
20	Kristisen Samuel	55	Poor
21	Yuliana Halawa	30	Very Poor
	Total	**∑= 1150**	

(Data Source: the studets' Score in Pre-Test)

The chart above shows that most students are in the less group and will not get a score below ≤ 60. Therefore, the researcher concluded that students do not understand the vocabulary above the module and need more lessons to improve it. After distributing the numbers, the researcher then tabulated and analyzed the numbers into percentages. The numbers were classified into 5 levels as follows:

Table 5. Percentage of The Students' Score Pre-Test

No	Classification	Score	Frequence	Percentage
1	Excellent	80-100	2	9,52%
2	Good	66-79	3	14,28%
3	Fair	56-65	2	9,52%
4	Poor	41-55	11	52,38%
5	Very Poor	≤40	3	14,28%
	Total		21	100%

(Data source: The percentage of students' pre-test of SDN 087981 Sibolga)

Information on the chart above prove if 2 (9, 52%) children educate get the number "very good", 3 (14, 28%) children educate get "good" number, 2 (9, 52%) children educate get "fair" figure, 11 (52.38%) children educate get the number "less"good" and 3 (14, 28%) children educate get the number " very poor" not enough "good". Source: on the chart above, it appears if percentage acquisition number ability vocabulary child educate currently small because only 5 children educate will get highest number as well as a number of big get grouping not enough Good as well as very not enough Good.

Test Post - Exam Student

After analyze early test child educate, researcher after That analyze final test child educate, will shown on chart at the bottom this :

Table 6. The Students' Score of Post-Test

No	Name	Score	Classification
1	Ersin Wilian Harefa	95	Excellent
2	Jesica Okta Friyanti	100	Good
3	Celsea Aura Kristia Hutagalung	70	Good
4	Syakilah Ismy Telaumbenua	100	Excellent
5	Mesrawati Laia	95	Excellent
6	Devi Fitri Hutauruk	-	-
7	Pasrah Halawa	100	Excellent
8	Dianra Pratama Duha	100	Excellent
9	Suliani Giawa	100	Excellent
10	Jeremi Wilker Hutapea	75	Good
11	Vicy Pratama Sianipar	100	Excellent
12	Ridwan Pulungan	80	Excellent
13	Leticia Earlene Octavia	0	Very poor
14	Juliana Manurung	100	Excellent
15	Reyhan Halomoan Pasaribu	70	Good
16	Reyhan Hasrat Gea	75	Good
17	Alfa Immanuel Fatemalua	100	Excellent
18	Dafa Ibnu Havis Nasution	95	Excellent
19	Kiadius Rafiaman Ndraha	75	Good
20	Kristisen Samuel	95	Excellent
21	Yuliana Halawa	90	Excellent
	Total	**∑=1715**	

(Data Source: the studets' Score in Post-Test)

The chart prove if There is increase number child educate after handed over treatment past Visual Scaffolding Strategy.

After tried evaluation, researcher after That tabulate as well as analyze number That So percentage. That number classified to in 5 levels as furthermore:

Table 7. Percentage of The Students' Score Post-Test

No	Classification	Score	Frequence	Percentage
1	Excellent	80-100	14	70%
2	Good	66-79	5	25%
3	Fair	56-65	-	-
4	Poor	41-55	-	-
5	Very Poor	≤ 40	1	5%
Total			20	100%

(Data source: The percentage of students' post-test of SDN 087981 Sibolga)

Information on the chart above proves that 14 (70%) students get a score of "very good", 5 (25%) students get a score of "good", 1 (5%) student gets a score of "very bad". Based on the chart above, it proves that students get higher scores. In other words, students get the best scores after researchers practice the Visual Scaffolding Strategy. So, researchers formulate that the use of the Visual Scaffolding Strategy as a tool can improve students' vocabulary skills in category 5 SDN 087981 Sibolga.

The results of the Pre-Test and Post-Test are presented as follows:

Table 8. The Worksheet of The Calculate Score of Pre-Test and Pst-Test

No	Pre-Test		Post-Test		Daviation	
	X1	X2 1	X2	X2 2	D	D2
1	80	6400	95	9025	15	225
2	45	2025	100	10000	55	3025
3	60	3600	70	4900	10	100
4	90	8100	100	10000	10	100
5	75	5625	95	9025	20	400
6	55	3025	-	-	55	3025
7	60	3600	100	10000	40	1600
8	70	4900	100	10000	30	900
9	75	5625	100	10000	25	625
10	30	900	75	5625	45	2025
11	55	3025	100	10000	45	2025
12	50	2500	80	6400	30	900
13	0	0	0	0	0	0
14	55	3025	100	10000	45	2025
15	50	2500	70	4900	20	400
16	55	3025	75	5625	20	400
17	55	3025	100	10000	45	2025
18	50	2500	95	9025	45	2025
19	55	3025	75	5625	20	400
20	55	3025	95	9025	40	2025
21	30	900	90	8100	60	3600
Total	1150	70,350	1715	157,275	675	27,850

(Data Source : the Calculate Score of Pre-test and Pos-test of SDN 087981 Sibolga)

Mean and Standard Deviation of Students' Pre- and Post-Test Scores

1. Pre-test Average Score

Phone number **=** $\frac{\sum X}{N}$

Phone number **=** $\frac{1150}{21}$

= 54.76

2. Post-Test Average Score

Phone number **=** $\frac{\sum X}{N}$

Phone number **=** $\frac{1715}{20}$

= 85.75

3. Pre-test Deviation

$SS = \sum x_1^2 - \left(\frac{\sum X1}{N}\right)^2$ = 70350– $\left(\frac{1150}{21}\right)^2$

= 70350– $\left(\frac{1322500}{21}\right)$

= 70350 – 62976.19

SS = 7373.81

SD= $\sqrt{\frac{SS}{N-1}}$= $\sqrt{\frac{7373,81}{20}}$= √36.86 = 192.0

4. Post-test Deviation

$SS = \sum x_1^2 - \left(\frac{\sum X1}{N}\right)^2$=

157275– $\left(\frac{1715}{20}\right)^2$

= 157275– $\left(\frac{2941225}{20}\right)$

= 157275 – 147061.25

SS = 10213.75

SD = $\sqrt{\frac{SS}{N-1}}$= $\sqrt{\frac{10213,75}{19}}$= √53.756 = 231.8

Table 9. Deviation Standard

NO	Test	Average Score	Standard (SD)
1	Pre-exam	54.76	192.0
2	Post-test	85.75	231.8

(*Data source: mean values and standard deviations of pre-test and post-test)*

The chart above prove if number on generally on post-test more big on number on generally above pre-test. The top number generally on the post-test was 85, 75 and number on generally on the pre-test is 54, 76. That is there is increase will important on ability vocabulary child educate after child educate given treatment on use Visual Scaffolding Strategy , numbers will got child educate increase as well as its classification very different . On the contrary deviation the pre-test

baseline was 192.0(SD) and deviation post-test baseline was 231.8(SD).

Results of the T Experiment and T Table

For recognize is the t-test above method statistics more big or No top t-table top degrees 5% significance is used method under This Find out:

Indonesian: $\frac{\sum D}{N}$

= $\frac{675}{21}$

= 32.1

T-Table Value Calculation

$$t = \frac{D}{\frac{\sqrt{\sum D^2 - \frac{(\sum D)^z}{N}}}{N(N-1)}}$$

$$\frac{32,1}{\frac{\sqrt{27850^2 - \frac{(675)^2}{21}}}{21(21-1)}}$$

$$\frac{32,1}{\frac{\sqrt{27850^2 - \frac{455625}{21}}}{21(20)}}$$

$$\frac{32,1}{\frac{\sqrt{27850 - 21696,42}}{420}}$$

$$\frac{32,1}{\frac{\sqrt{6153,58}}{420}}$$

$$\frac{32,1}{\sqrt{14,6}} = \frac{32,1}{3,82}$$

time = 8.40

Table 10. Text will Important

Variables	T-test	T-Table Value
Pre-test and Post-test	32.1	8.40

(Data Source: Significance Test)

The data above shows that the t-test value is greater big on t-table value. This shows that there is difference will significant between students' pre-test and post-test results .

Hypothesis Testing

For know degrees freedom (df) of researchers use formula as follows:

DF = N-1

= 21-1

= 19

α = 8.40 and t- test value = 32.1

For the level, significant (p) 5% and df = 19, and the table value is 8.40, while the t-test value is 32.1. This means that the t-test value is more big top t-table (8.40 < 32.1). Thus, it can it is concluded that students' vocabulary mastery through the Visual Scaffolding Strategy is significantly better after receiving treatment. So, the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted. It can be concluded that there is an increase in vocabulary mastery through the Visual Scaffolding Strategy in class V of SDN 087981 Sibolga.

The findings of this study indicate that the Visual Scaffolding Strategy is tool will effective. For improve students' vocabulary mastery. The results of the pre-test and post-test showed that students show progress will significant in their vocabulary knowledge. The pre-test results revealed that the majority of students scored in the “poor” and “very poor” categories. bad ", while on post-test, the majority obtained "good" and "very good" scores. The average score increased above 54.76 above pre-test to 85.75 above post-test, shows improvement will real (see table 10). Statistical

analysis also confirmed that the t-test value (32.1) was greater tall above above mark t-table (8.40), will show impact significant on strategy the on students' vocabulary mastery (see Figure 2).

The Visual Scaffolding strategy was implemented during six meetings, consists of on two session test and four treatment sessions. Researchers used visual aids, including pictures and PowerPoint presentations, to facilitate students in linking the words above meaning. The activities include group discussions, pronunciation exercises, and practice. vocabulary, will contribute on improvement student engagement and understanding. Important challenges during the implementation phase include time management and classroom distractions; however, adjustments such as structured exercises and focused teaching strategies allow for success in overcoming these challenges.

This strategy has proven to have impact positive on knowledge vocabulary students, and increase their motivation and active participation in learning. The use of visual aids makes the vocabulary learning process more interactive and enjoyable, thus reducing students' difficulties in understanding and remembering new words. The results showed that merger strategy will interesting such as Visual Scaffolding can create environment Study will more effective and dynamic, will on Finally increase vocabulary mastery and students' confidence in using English.

E. Kesimpulan

Based on the discussion of the previous chapter, the findings of the results showed a positive impact on students' vocabulary skills and classroom situations. This study is categorized as a pre-experimental research design, the purpose of this study is to determine whether through the use of Visual Scaffolding Strategy can improve students' reading comprehension. Therefore, this study uses quantitative research. Results of data analysis: Pre-test average score (54.76) and standard deviation (192.0). Post-test average score (85.75) and standard deviation (231.8). The results of the t-test where the t-test value is 32.1. It is greater than the t-table which is 8.40 at a significance level of 5% and degrees of freedom (df) is 19. The results of the study indicate that through the use of Visual Scaffolding Strategy can improve students' vocabulary mastery where they can improve their knowledge of vocabulary, to know how to pronounce vocabulary, how to understand vocabulary. Based on the description of the results above, the average score of the pre-test was 54.76 and increased to 85.75 on the post-test. Then, the t-test (32.1) is greater than the t-table (8.40). This means that the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted. This proves that the application of Visual Scaffolding Strategy in vocabulary

teaching is able to improve students' vocabulary mastery.

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