

## The Effect Of Using Line Webtoon Media On Students' Vocabulary Achievement At Eleventh Grades Students In SMA Swasta GKPI Padang Bulan Medan

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### Abstrak

Skripsi ini tentang Pengaruh Penggunaan Media Line Webtoon Terhadap Prestasi Belajar Kosakata Siswa Kelas XI SMA Swasta GKPI Padang Bulan Medan. Tujuan dari penelitian ini adalah untuk mengetahui apakah penggunaan media Line Webtoon berpengaruh signifikan terhadap prestasi belajar kosakata siswa. Desain penelitian ini adalah eksperimen kuantitatif yang dilakukan pada siswa kelas XI SMA Swasta GKPI Padang Bulan, Medan, Sumatera Utara dan melibatkan dua kelompok yaitu XI-IIS sebagai kelompok eksperimen dan XI-MIA sebagai kelompok kontrol dengan dua teknik yang berbeda. : Media Line Webtoon dan cara konvensional. Tes diberikan dalam bentuk pre-test dan post-test untuk kelompok eksperimen dan kontrol. Hasil penelitian ini menunjukkan bahwa nilai rata-rata kelompok eksperimen pada pre-test adalah 62 dan post-test adalah 82,25. Sedangkan nilai rata-rata kelompok kontrol pada pre-test adalah 60,25 dan post-test adalah 71,25. Hasil pengujian hipotesis menunjukkan bahwa  $H_a$  diterima dan  $H_o$  ditolak karena  $t_{hitung} > t_{tabel} = 3,157 > 1,686$  (5%). Artinya media Line Webtoon berpengaruh signifikan terhadap prestasi belajar kosakata siswa kelas XI SMA Swasta GKPI Padang Bulan Medan.

**Kata Kunci:** *Webtoon Baris, Media, Pencapaian Kosakata*

### Abstrak

This thesis was about The Effect of Using Line Webtoon Media on Students 'Vocabulary Achievement at the Eleventh Grades Students in SMA Swasta GKPI Padang Bulan Medan. The objective of the study was to know whether the use of Line Webtoon media has a significant impact on students 'vocabulary achievement. The research design for this study was experimental quantitative that completed at eleventh grade students of SMA Swasta GKPI Padang Bulan, Medan, North Sumatera and involved two groups include XI-IIS as the experimental group and XI-MIA as the control group with two different techniques: Line Webtoon media and conventional method. The test was given in pre-test and post-test for experimental and control group. The results of this study showed that the mean score of experimental groups in pre-test was 62 and post-test was 82,25. Meanwhile, the mean score of control group in pre-test was 60,25 and the post-test was 71,25. The results of testing hypothesis showed that  $H_a$  was accepted and  $H_o$  was rejected because  $t_{count} > t_{table} = 3,157 > 1,686$  (5%). It means that Line

Webtoon media has a significant effect on students' vocabulary achievement at eleventh grade of SMA Swasta GKPI Padang Bulan Medan.

**Keywords:** *Line Webtoon, Media, Vocabulary Achievement*

## **INTRODUCTION**

Vocabulary was a basic component that was crucial to learn when the students want to study about foreign language. Without having vocabulary, students cannot verbally or writing in conveying their feelings to another people. For example, if kids just have a few vocabularies, they will be unable to express themselves in English via speaking, writing, or reading. It was also too challenging for them in decipher the meaning of the words that they used or altered. Beside of that, because vocabulary was not included as one of fourth competencies in English, some instructors did not devote enough time to it. Here, the writer was interest to implement Line Webtoon application as one of the medias that could helped to develop students' interest in learning vocabulary.

They were also too indolent to memorize new language from a text that they read. In this case, the writer was found one medium that could helped students in mastering English vocabulary at eleventh grades students in SMA Swasta GKPI Padang Bulan Medan through an application in teaching English vocabulary, namely Line Webtoon application. This application can be used as one way to develop students' vocabulary skills and make them more interested in learning vocabulary skill using the combination of pictures and cartoon (comic) on the web. Students were also motivated to read a text that was supplemented by a picture. Furthermore, by looking from the images, the students were able in comprehended the meaning of vocabulary. Like the previous research, Mayfield in Maya (2018: 2) stated that Line Webtoons are a great way to practice any set of vocabulary because they are simple to use and entertaining. This platform or application was selected because it allows students to be active and have fun while learning vocabulary.

## **Media**

As it is known, media has a really close relationship with the world of learning. It is usually used as a means to facilitate students' understanding of the materials in teaching learning activities. It was less effective for the teacher when they were simply use books in the classroom. In this context, media may be employed to transfer learning content in order to meet the study's purpose and boost students' success. According to Briggs in Ekawarna (2016: 47), media is a tangible tool that may be used to transmit information. Medium can be videos, pictures, books, television, and so on. In this context, media could be anything, whether it be physical or non-physical, or even material or non-material, as long as it could conveyed the material content. Not only to deliver the material content, it was also used to explain, motivated, or clarified a topic that was being debated or discussed.

## **The Importance of Media**

In learning, media was used to facilitate the teaching and learning process. According to Naz and Akbar in Zakaria (2021: 66), there are some roles of the media, they are: 1) To entertain. Media can be used for entertainment and fun. For example, fiction and poetry were published in form of books and magazines, recordings, cassettes, and music radio broadcasts. Music was usually featured in cinema films, and comedy, drama, and others. 2) To give information. By using media, it could help us in developing knowledge, as well as insight, or present facts. It was available through a variety of sources, like newspapers, tv, radio, and others. 3) To instruct. Media may also be utilized to transition listeners and viewers, from ignorance to a state of knowing. People can get these instructions through movies, slides, film strip recordings, audio cassettes, and so on.

## **Types of Media**

Doosur in Putri (2019: 15), stated that there were three types of media, they were:

1. Media in visual form. Media in visual was a form of media that students could see or touch. It was also called as printing media
2. Audio media. Audio media was a type of media communication in which audio or voice recordings were used.
3. Audio-Visual media. Audio visual refers to the use of sound (audio) and image (visual) components. Example: Film projectors, television, video, etc.

### **The Function of Teaching Media**

As it was known, there were various assumptions about the value and function of media for education, but basically, all of that have the same point, that using media for education may be utilized to appropriately, attractively, creatively, and formally present information to students. The following were how Sudjana and Rivai in Rokhayani (2014: 145) outlined the importance and advantages of media for education:

1. Teaching will draw more attention and can develop students learning motivation.
2. Teaching material will have unmistakable meaning, allowing pupils to better master the teaching goals.
3. Teaching techniques will be more diversified, not just verbal communication through the instructor's words, so that the students are not bored, especially when the teacher teaches every lesson.
4. Students engage in additional learning activities because they are not only listening to instructor explanation, but also engage in other activity, like observing, demonstrating, and others.

### **Line Webtoon**

Webtoon is an abbreviation for website and cartoon (comic) that launch in Korea in 2014 by Naver. Line Webtoon are animated cartoons or collections of comic strips were released online. Line Webtoon had been widely used in Asia, and even Western countries. Webtoon seems to be present as a popular digital comic application in the midst of technological developments with more than 50 million users. There are three reasons, according to Raulan in Efendi (2021: 4), why Line Webtoon is better than digital comic platforms. First, Line Webtoon publishes comics in long vertical strips for easier reading, whereas another digital comics platform presents comics across multiple pages. Second, unlike offline comics, which are typically published in black and white, Line Webtoons are displayed in a variety of colors. The last, Line Webtoon has more gutter space, or space between comic panels, than any other regular comic. Line Webtoon is one of a solution that can be used by teachers to make the class teaching learning process more interesting.

### **Principle of Webtoon Application**

According to Wright in Khairani (2020: 32), there are three reasons why teachers need to use comic in language classes, namely: 1) Students are enthusiastic about the genre. It means, comics are one of the most popular genres. Comic describe about relaxed situations, equipped with various types of funny or interesting stories and illustrations, which make students interested in reading comic. 2) It is not difficult or expensive to get it. Students can use technology to obtain or download reading resources in this technological era. To develop resources, the instructor must be able to take comics into consideration that are appropriate for used by teachers when teaching languages, especially in teaching vocabulary. 3) The majority of comics have a poor readability level, with lack of vocabulary and appropriate phrases for primary and middle school readers, this webtoon can be utilized as a medium in learning that is not too challenging.

### **Procedure of Webtoon Application**

To access Webtoon you can download the Webtoon application on a smartphone or laptop, then you need to sign in first. You can sign in by using your Facebook account or using your Google account. But if you did not want to download the Webtoon application, you can access Webtoon through Google. All you have to do just typing the Webtoon word in Google searching's column, then sign in. If you do not have an account to sign in, you can use a guest mode which is you do not need to sign in. Then, choose what genres of comic you want to read. You can also choose in what kinds of languages you want to read. Choose English, then, asked students to read the contents of conversation (Khairani, 2020: 33–34).

### **The Uniqueness of Webtoon**

There were several reasons why Webtoon has its own uniqueness when compared to another teaching media, according to Morrison (2002: 758) as followed: 1) It has been shown that Webtoon was extremely well-known and well-liked among kids in the middle and high schools. 2) Webtoon was the popular literary form among students. 3) Due to the Webtoon's well-liked and accessible structure, students explore literacy more than they usually do. 4) Students can research the utilized of dialogue, concise, dramatic vocabulary, and non-verbal communications by using Webtoon. 5) This technique can encourage student participation in the classroom and make it less repetitive, dull, pointless, which are common happen in classrooms in general.

### **Vocabulary**

The first step in learning English is to grasp vocabulary. According to Hornby (2006: 1645), vocabulary can be defined as the entire quantity of words in a language, as well as a list of terms and their meanings. Because it was necessary for acquiring the fourth set of English skills; listening, reading, writing, and speaking; vocabulary plays a crucial part in the language. Vocabulary became the supporting factor for these fourth skills, in order to be able to express ideas, opinions, and feelings in communication. The writer concluded that, vocabulary was a group of word with their meanings, both in spoken and written language, or in productive or receptive forms that was really influencing in communicating effectively and efficiently. The more vocabulary pupils acquire, the easier it would be for them to achieve the fourth skills in English.

### **The Vocabulary's Classes**

The first aspect in explaining vocabulary in study and practice, is because people have different forms of vocabulary that employed for different reasons. Failure to discriminate between distinct forms of terminology might lead to misunderstanding and disagreement in other study findings. In general, vocabulary was talked about the understanding the meaning of words. The fact that words appear in at least two forms, complicates this definition. There were at least two types of vocabulary: receptive vocabulary (that could comprehend or identify) and productive vocabulary (that utilized in writing or speaking). In his book, Hiebert (2005: 5), he summarized the concepts of Oral and Print vocabulary as followed: 1) Oral vocabulary was made up from words whose meanings we understand at the time we talked or read aloud. While, 2) Print vocabulary was made up of words whose meanings recognized at the time we writing or read quietly. When pupils learn to read, print vocabulary became more important than spoken vocabulary.

### **Word Class**

Word class is a group of words that can be classify according to their forms, functions, and meanings in grammatical system. Some words can be classified as more than one word type, and they

change type according to the sentence they belong to. The classes of word were divided into eight, as followed:

1. Noun is used to discuss the names of many things, including people, places, feelings, and mental states. For example: Friend, table, dog, London, rose, love, and so on.
2. Pronoun is word which replace noun or noun phrases, so we do not have to say the whole noun phrase or repeat it unnecessarily, like: he, she, mine, yours, it, her, this, that, and so on.
3. Verbs are words or word combinations which describe an action, an occurrence, or a state, such as: run, talk, doing, to look, etc.
4. Adjective refers to the words which describe or provide information about nouns, like: old, kind, expensive, clever, etc.
5. Adverbs are used to provide more information about verbs, adjectives, another adverb, clauses, whole sentences, and, less frequently, noun phrases. For example: ever, quickly, badly, completely, etc.
6. Preposition refers to the words that usually come before noun or pronoun, and express a relationship with another word or element, such as: at, in, for, after, above, etc.
7. Conjunctions are linking words like as and, or, but, and others that are used to connect clauses as well as coordinate terms within the same phrase.
8. Determiners comes before nouns. They indicate the type of reference that the noun is making. They include words such as: a/an, the, some, this, my, etc. For example: my phone, an apple, some fruits, and so on.

### **Word Family**

Word families are sets of words which have the same root or base words, and fit within a specific set of letter patterns. They often share a base or root term to which various prefixes and suffixes are added. There are three kinds of words families, as followed:

1. Prefixes are added to the beginning of an existing word to produce a new word with a distinct meaning. For examples: in- + active: inactive, dis- + miss: dismiss
2. Suffixes are added in the end of an existing word to produce a new word with a distinct meaning. For examples: work + -er: worker, happy + -ness: happiness
3. Affixes are word components that modify the meaning of a root or base word. Affixes include both prefixes and suffixes. For examples: un- + cook + -ed: uncooked, un- + believe + -able: unbelievable

### **Word Formation**

Word formation describes the procedures used to create new words from morphemes or words that already exist. They are formed by cutting, borrowing, combining, and summarizing from another words, which can change the shape of the term from its origin and result in the development of new words. There are numerous types of word formations.

1. Compounding are two or more words that linked together to produce word with a new meaning. Example: day + dream: daydream
2. Blending is the process of combining two different forms to made a single new word. Such as: emotion + icon: emoticon.
3. Clipping refers to the way of shortening a longer word and reducing it to one syllable. For example: telephone: phone, bicycle: bike, electronic book: e-book.
4. Conversion is the change of a word function from one word class to another. For example: Can you *text* him? (Text is a noun and converted into verb; which means to send a text-message).

5. Multi-word unit is a lexical unit generated by two or more words to establish a new notion that differs from the order of the meanings of its constituents. Types of multi-word units, as followed: Phrasal verb: turn in, look for, Idiom: a collection of words formed by usage as having a meaning not deducible from those of the individual words. For examples: a piece of cake!
6. Collocation, refers to a group of two words or more that usually go together. For example: fast food, make sense, pay attention, etc.

### **Word Meaning**

1. Synonyms: words which shares similar meanings. Such as: Big: Huge.
2. Antonyms: are words with the opposite meanings. For example: old X new, hot X cold etc.
3. Homonyms: are two or more words that sounds the same as another word but differs in meaning. For example: weak-week, knight-night, sea-see, etc.

### **The Importance of Vocabulary**

According to Clouston(2013: 2), the importance of vocabulary in teaching English cannot be overstated. Students who lack a sufficient vocabulary will be unable to comprehend others or express their own ideas. This is how linguist Wilkins explained the importance of vocabulary. His point of view was repeated in the following advice to students from a recent course book: 'If you spending a lot of your time to study grammar, your English would not develop very much. The most progress would made, if people learned more words and expressions. With grammar, you could say a bit, but with words, you could deliver anything!'

### **The Relation between Line Webtoon and Vocabulary Achievement**

Because of the innovative linguistic talents that young learner brought into the classroom, Halliwell, cited in Wulandari (2019, p. 4), claims that the teachers should be able to establish a communicative environment in which young learners can express themselves. Teachers can also encourage the learners to use technology to expand their vocabulary.

Line Webtoon which was not specifically made for the purpose of learning English, has been reported to be a tool for improving vocabulary. Line Webtoon was used to help learner during the language learning process. By using Webtoon application, it can make the classroom atmosphere more active and the material to be taught will be more interesting to learn.

Reading Line Webtoon series in English is quite indeed interesting to improve the learner's ability to speak English, especially for vocabulary. The learners will enjoy while reading their favorite comics and it will also help them in developing their imagination. Some of the words presented, will become new vocabulary acquired when reading English Webtoon. Some vocabulary in Line Webtoon, was also used vocabulary which never heard before, in which it can increase the vocabulary knowledge. Beside of that, the usage of images in Webtoon, make it look more funnies and interesting, it can also motivate learner interest in reading. Moreover, this app was free. Understanding a simple dialogue was necessary for students to increase their vocabulary skills.

### **RESEARCH METHODOLOGY**

The research design was carried out utilizing experimental quantitative research. Typically used to find out about the averages, make predictions, the patterns, test causal relationship, and generalize the results to wider populations. Since the methodology of study was quantitative, the writer chose experimental research. In experimental research, the writer systematically examines whether there was a cause-and-effect relationship between variable. In order to evaluate the effectiveness of the treatment, experimental research often featured two groups that were compared. Samples were split

into two groups for experimental research, namely experimental and control groups. In this study, the writer had two tests: before and after the treatment. Both pre-test, which is conducted before the treatment, and post-test, which is conducted right after the treatment. The treatment was given by the author in the middle of pre-test and post-test. Here, line webtoon application was used as their media in learning vocabulary.

### The Instrument of Collecting Data

The instrument which writer utilized in collecting the data is vocabulary test. The tests were classified into two tests: pre-test and post-test. The format of the tests which used in this research were multiple-choices and matching words tests, which consisted of 20 (twenty) items, and, time allocation were 40 minutes. The right answers in each question were multiplied by 5. Then, the scores would be  $20 \times 5 = 100$ .

**Table 3.3. Score of Criteria**

Scores	Criteria
85 – 100	Excellent
75 – 80	Good
55 – 70	Average
35 – 50	Poor
0 – 30	Very Poor

### Research Procedures

The following were the research procedures for experimental and control groups in this study:

**Table 3.4 Research Procedures in Experimental and Control Groups**

Experimental Group	Control Group
<p><b>(Opening)</b></p> <ol style="list-style-type: none"> <li>Greetings (teacher greets the students, and students gave their responses).</li> <li>The teacher was given the motivation and instruction to students before doing the test.</li> </ol>	<p><b>(Opening)</b></p> <ol style="list-style-type: none"> <li>Greetings (teacher greets the students, and students gave their responses).</li> <li>The teacher was given motivation and instruction to students before doing the test</li> </ol>
<p><b>(Pre-test)</b></p> <ol style="list-style-type: none"> <li>The teacher was given to students the pre-test by distributing the vocabulary test in a piece of paper.</li> <li>Teacher asked students to collect their pre-test answer sheets.</li> </ol>	<p><b>(Pre-test)</b></p> <ol style="list-style-type: none"> <li>The teacher was given to students the pre-test by distributing the vocabulary test in a piece of paper.</li> <li>Teacher instructed students to gather their pre-test response sheets.</li> </ol>
<p><b>(Treatment)</b></p> <ol style="list-style-type: none"> <li>The teacher explained about vocabulary and Line Webtoon Application.</li> <li>The teacher asked students to download Line Webtoon Application first or the students can open the Line Webtoon through google, by using their own smartphones.</li> <li>The teacher explained to students about Noun, Pronoun, Verb and Adjective.</li> </ol>	<p><b>(Treatment)</b></p> <ol style="list-style-type: none"> <li>The teacher was explained about vocabulary.</li> <li>The teacher explained to students about Noun, Pronoun, Verb and Adjective.</li> <li>After the explanation, the teacher asked students whether or not they were understood about the explanation that has been giving before.</li> </ol>

4. The teacher used the examples of vocabulary from a story in Line Webtoon Application.
5. The teacher asked students to read a story from Line Webtoon application. The title of the story was determined by the teacher. If some students did not bring their phone, or they even did not have a smartphone, the teacher would show Line Webtoon Application's content by using projector in the classroom.
6. The teacher instructed pupils to look up difficult words in dictionaries, and write the definitions in their notebooks.

**(Post-test)**

1. Teacher gave the directions related to post-test.
2. Teacher gave post-test to students.
3. The teacher asked students to collect their post-test answer sheets.

**(Closing)**

1. Teacher made the conclusions about the lesson.
2. The teacher closed the teaching learning process in the classroom with praying.

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2. The teacher closed the teaching learning process in the classroom with praying.

**DATA AND DATA ANALYSIS**

**Data**

In this study, the samples separated into two groups: experimental and control group. Experimental group used Line Webtoon medium to teach, whereas control group used conventional medium. In order to determine the comparison in their vocabulary knowledge, both groups were given the same vocabulary test subjects in pre-test and post-test. Following tables show the result of pre-test and post-test for both groups

**Table 4.1 Pre-Test and Post-Test Results in Experimental Group**

No	Student's Initials	Pre-tests (T1)	Post-tests (T2)
1	GFA	45	70
2	GVR	85	100
3	GSN	65	80
4	IB	90	100
5	JBS	65	80
6	MRGS	30	60
7	MKS	45	70
8	MKL	45	80
9	MHN	90	100
10	NS	70	80
11	PRMB	85	100
12	RS	35	70



13	SE	30	65
14	SM	85	90
15	TSAM	25	55
16	MPT	55	85
17	HT	85	95
18	UAS	40	80
19	YJMS	75	85
20	ZF	95	100
	<b>Total</b>	<b>1240</b>	<b>1645</b>
	<b>Mean</b>	<b>62</b>	<b>82,25</b>

**Table 4.2 Pre-Test and Post-Test Results in Control Group**

No	Student's Initials	Pre-tests (T1)	Post-tests (T2)
1	ADS	40	65
2	BA	25	40
3	CREH	85	100
4	CN	75	85
5	CS	85	85
6	EN	65	75
7	EPS	40	50
8	FRL	75	100
9	HKB	15	30
10	FPT	80	90
11	FV	80	85
12	KTTS	65	70
13	LAL	70	75
14	NRS	85	90
15	NPTM	45	50
16	NY	30	45
17	OPSG	50	60
18	PRS	60	70
19	RN	75	85
20	SS	60	75
	<b>Total</b>	<b>1205</b>	<b>1425</b>
	<b>Mean</b>	<b>60.25</b>	<b>71,25</b>

Regarding to the Table 4.1 and Table 4.2, the writer concluded that there were significant differences between scores of both groups in teaching English vocabulary mastery, by using Line Webtoon media and those who used conventional method. From the difference scores of both groups, the writer concluded that teaching English vocabulary could be more effective if Line Webtoon was also added as one of the various for teaching English vocabulary.

#### **Analysis of Data**

Data analysis on this study utilized to examine the influence of Line Webtoon medium on students' vocabulary accomplishment. The T-test formula was employed in this study's data analysis,

to determine the differences in scores between experimental and control groups, which also verified the hypothesis of this investigation. The results of data analysis in this study, showed as follows:

**Table 4.3 Pre-test and Post-Test Calculations in Experimental Group**

No	Student's Initials	Pre-tests (T1)	Post-tests (T2)	Deviations (d= T2 - T1)	Square of deviations (d <sup>2</sup> )
1	GFA	45	70	25	625
2	GVR	85	100	15	225
3	GSN	65	80	15	225
4	IB	90	100	10	100
5	JBS	65	80	15	225
6	MRGS	30	60	30	900
7	MKS	45	70	25	625
8	MKL	45	80	35	1225
9	MHN	90	100	10	100
10	NS	70	80	10	100
11	PRMB	85	100	15	225
12	RS	35	70	35	1225
13	SE	30	65	35	1225
14	SM	85	90	5	25
15	TSAM	25	55	30	900
16	MPT	55	85	30	900
17	HT	85	95	10	100
18	UAS	40	80	40	1600
19	YJMS	75	85	10	100
20	ZF	95	100	5	25
	<b>Total</b>	<b>1240</b>	<b>1645</b>	<b>405</b>	<b>10675</b>
	<b>Mean</b>	<b>62</b>	<b>82.25</b>	<b>20.25</b>	<b>533.75</b>

Based on table 4.3, experimental group deviation was 405, and deviation square was 10675. The following was pre-test and post-test calculations in experimental groups:

$$M_x = \frac{\sum d}{N} = \frac{405}{20} = 20,25$$

The experimental group's deviation square was computed as follows:

$$D_x^2 = (\sum d^2) - \frac{(\sum d)^2}{N_x} = (10675) - \frac{(405)^2}{20} = 10675 - \frac{164025}{20} = 10675 - 8201,25$$

= 2473,75

Regarding to calculation above, the mean of experimental group was 20,25. Then, deviation was 2473,75.

Furthermore, the data from control group could be seen as followed:

**Table 4.4 Pre-Test and Post-Test Calculations in Control Group**

No	Student's Initials	Pre-tests (T1)	Post-tests (T2)	Deviations (d= T2 - T1)	Square of deviations (d <sup>2</sup> )
1	ADS	40	65	25	625
2	BA	25	40	15	225
3	CREH	85	100	15	225
4	CN	75	85	10	100
5	CS	85	85	0	0
6	EN	65	75	10	100
7	EPS	40	50	10	100
8	FRL	75	100	25	625
9	HKB	15	30	15	225
10	FPT	80	90	10	100
11	FV	80	85	5	25
12	KTTS	65	70	5	25
13	LAL	70	75	5	25
14	NRS	85	90	5	25
15	NPTM	45	50	5	25
16	NY	30	45	15	225
17	OPSG	50	60	10	100
18	PRS	60	70	10	100
19	RN	75	85	10	100
20	SS	60	75	15	225
	<b>Total</b>	<b>1205</b>	<b>1425</b>	<b>220</b>	<b>3200</b>
	<b>Mean</b>	<b>60.25</b>	<b>71.25</b>	<b>11</b>	<b>160</b>

Based on table 4.4, control group deviation was 220, and square of deviation was 3200. The following was pre-test and post-test calculations in control groups:

$$M_y = \frac{\sum d}{N}$$

$$= \frac{220}{20}$$

$$= 11$$

The control group's deviation square was computed as follows:

$$Dy^2 = (\sum d^2) - \frac{(\sum d)^2}{N_y}$$

$$= (3200) - \frac{(220)^2}{20}$$

$$= 3200 - \frac{48400}{20}$$

$$= 3200 - 2420$$

$$= 780$$

Regarding to calculation above, the mean of control group was 11. Then, the deviation was 780. From the data above, it could be seen that:

- $M_x = 20,25$
- $M_y = 11$
- $Dx^2 = 2473,75$
- $Dy^2 = 780$
- $N_x = 20$
- $N_y = 20$

After having the students' scores from both of group, the writer continued to calculate and analyzing the data utilizing t-test formula. The purposed was to discovering the impact of utilizing Line Webtoon media on students' vocabulary achievement at eleventh grades students in SMA Swasta GKPI Padang Bulan Medan. the calculation could be seen as followed:

$$t = \frac{M_x - M_y}{\sqrt{\left[ \frac{\sum x^2 + \sum y^2}{N_x + N_y - 2} \right] \left[ \frac{1}{N_x} + \frac{1}{N_y} \right]}}$$

$$t = \frac{20,25 - 11}{\sqrt{\left[ \frac{2473,75 + 780}{(20) + (20) - 2} \right] \left[ \frac{1}{20} + \frac{1}{20} \right]}}$$

$$t = \frac{9,25}{\sqrt{\left[ \frac{3253,75}{38} \right] [0,1]}}$$

$$t = \frac{9,25}{\sqrt{[85,625] [0,1]}}$$

$$t = \frac{9,25}{\sqrt{[8,5625]}}$$

$$t = \frac{9,25}{2,93}$$

$$t = 3,15$$

Regarding to the calculation above, it could be seen that the  $t_{count}$  obtained was 3,15.

## Validity and Reliability

### Validity

Validity is crucial consideration in evaluating and measuring the instrument of data which can be divided into three, namely criteria's validity, construct's validity, and validity of content. But, in this case, the writer was conducted construct validity in form of multiple-choices and matching words in order to considered how far the test items able to measure the set idea or conceptual description. The test item of the validity could be seen as followed:

**Table 4.5 Validity Calculation**

No	Student's Initials	(X)	(Y)	X <sup>2</sup>	Y <sup>2</sup>	XY
1	DA	16	19	256	361	304
2	DPS	13	17	169	289	221
3	EYH	14	19	196	361	266
4	FSB	11	14	121	196	154
5	FZH	9	16	81	256	144
6	MS	13	17	169	289	221
7	NS	10	15	100	225	150
8	PT	10	16	100	256	160
9	PERP	14	18	196	324	252
10	NE	7	15	49	225	105
11	RS	8	15	64	225	120
12	RF	17	20	289	400	340

13	SN	17	20	289	400	340
14	NK	12	14	144	196	168
15	JH	11	16	121	256	176
16	GS	13	17	169	289	221
17	RCS	14	17	196	289	238
18	YNS	10	16	100	256	160
19	VN	12	19	144	361	228
20	WM	12	16	144	256	192
	<b>Total</b>	<b>243</b>	<b>336</b>	<b>3097</b>	<b>5710</b>	<b>4160</b>
	<b>Mean</b>	<b>12.15</b>	<b>16.8</b>	<b>154.85</b>	<b>285.5</b>	<b>208</b>

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{(N\sum X^2 - (\sum X)^2)(N\sum Y^2 - (\sum Y)^2)}}$$

$$r_{xy} = \frac{20 \times 4160 - (243)(336)}{\sqrt{(20 \times 3097 - (243)^2)(20 \times 5710 - (336)^2)}}$$

$$r_{xy} = \frac{83200 - 81648}{\sqrt{(61940 - 59049)(114200 - 112896)}}$$

$$r_{xy} = \frac{1552}{\sqrt{(2891)(1331)}}$$

$$r_{xy} = \frac{1552}{\sqrt{3847921}}$$

$$r_{xy} = \frac{1552}{1961,61}$$

$$r_{xy} = 0,79$$

Regarding to calculation above, the validity obtained was 0,79. Based on Arikunto (2010:319), the validity categorization is as follows: very low (0,00 – 0,20), low (0,20 – 0,40), fair (0,40 – 0,60), high (0,60 – 0,80), and very high (0,80 – 1,00). So, regarding to the criteria of validity, 0,79 leads to high. On other words, test items were **valid**.

### Reliability

In this study, the writer utilized the Kuder Richardson (KR-21) formula to determine the test's reliability:

$$r_{11} = \frac{K}{K-1} \left( 1 - \frac{M(K-M)}{KS^2} \right)$$

- r<sub>11</sub> : Reliabilitytest  
K : Totalitems in the test  
M : Meanscore  
S<sup>2</sup> : Total of variant

**Table 4.6 The Calculation of Reliability**

No	Student's Initials	X	X <sup>2</sup>
1	DA	16	256
2	DPS	13	169
3	EYH	14	196
4	FSB	11	121
5	FZH	9	81
6	MS	13	169
7	NS	10	100
8	PT	10	100

9	PERP	14	196
10	NE	7	49
11	RS	8	64
12	RF	17	289
13	SN	17	289
14	NK	12	144
15	JH	11	121
16	GS	13	169
17	RCS	14	196
18	YNS	10	100
19	VN	12	144
20	WM	12	144
	<b>Total</b>	<b>243</b>	<b>3097</b>
	<b>Mean</b>	<b>12.15</b>	<b>154.85</b>

$$S^2 = \frac{\sum X^2 - \frac{(\sum X)^2}{N}}{N}$$

$$S^2 = \frac{3097 - \frac{(243)^2}{20}}{20}$$

$$S^2 = \frac{3097 - 2952,45}{20}$$

$$S^2 = \frac{144,55}{20}$$

$$S^2 = 7,22$$

$$S = \sqrt{7,22}$$

$$S = 2,68$$

The obtaining of reliability:

$$\begin{aligned} r_{11} &= \frac{K}{K-1} \times \left( 1 - \frac{M(K-M)}{KS^2} \right) \\ &= \frac{20}{20-1} \times \left( 1 - \frac{12,15(20-12,15)}{20(7,22)^2} \right) \\ &= \frac{20}{19} \times \left( 1 - \frac{12,15(7,85)}{20(52,128)} \right) \\ &= \frac{20}{19} \times \left( 1 - \frac{95,377}{1042,56} \right) \\ &= 1,05 \times (1 - 0,091) \\ &= 1,05(0,909) \\ &= 0,95 \end{aligned}$$

Regarding to the calculation above, the reliability showed that the test was substantial and reliable. The calculation of reliability was 0,95. So, the reliability of the test items above categorized as high coefficient for vocabulary test.

### Research Findings

The result of this study described, and analyzed about the effect of Line Webtoon medium on student's vocabulary achievement at eleventh grades students in SMA Swasta GKPI Padang Bulan Medan. Regarding to the data, it could see that there were significant effects of utilizing Line Webtoon medium in teaching English vocabulary achievement, because mean of experimental group (82,25) is higher than control group (71,25). Furthermore, the result of the data calculations showed that,  $t_{count}$  (3,15) were higher than  $t_{table}$  (1,68), or  $t_{count} > t_{table} = 3,15 > 1,68$  (5%), which means  $H_a$  was accepted, and  $H_o$  was rejected. The results of calculation data have proved that, utilizing Line Webtoon media could become one of a way that made teaching English vocabulary more effective, and enjoyable.

### DISCUSSION

Vocabulary instruction may assist pupils in learning the meaning of word, and comprehending how to utilize them. In this study, the writer used Line Webtoon to teach English vocabulary to eleventh grades students in SMA Swasta GKPI Padang Bulan Medan. Aimed of this study was to determining whether or not Line Webtoon influenced students 'vocabulary achievement. Regarding to the data, it was found that Line Webtoon have significant effects on student's vocabulary achievement. In the previous study, Wulandari (2019) "*The Effectiveness of Webtoon for EFL Students in Mastering Vocabulary at the Fourth Semester of Tidar University*". This result showed that, utilizing Line Webtoon was capable in improving student's vocabulary competencies to be better. The second previous study, Lestari (2018) "*The Effect of Using Line Webtoon Media on Seventh Grade Students' Speaking Achievement in PGRI 1 Junior High School Surabaya*". The result showed that, Line Webtoon medium made students had better speaking achievement, and eager to engage in class activities happily. Next, the third previous study belongs to Sabekti (2020), "*The Effectiveness of Line Webtoon on Students' Vocabulary Mastery of the First Grade at MAN of Blitar City*". The result showed that, Line Webtoon application was an effective medium in upgrading student's vocabulary mastery.

On this study, the writer discovered the advantages of employing Line Webtoon medium in this study, namely that students 'engagement in learning activities was impacted by utilizing this medium, since students became more active, confident, and did not boring in acquiring language. It might also aid students in memorizing vocabulary, because it was reinforced with a picture and conversational statement which allowing them to grasp the meaning of word. By employing Line Webtoon, all teacher's teaching methods became more diversified, not just verbal communication through the instructor's words, so that students did not grow bored, particularly when the teacher taught every lesson. Hopefully, people were not only enjoying when reading it, but also realized that they were adding new vocabulary and practicing their English in everyday life through this media.

### Testing Hypothesis

Testing hypothesis has a purpose to discover whether the effect of Line Webtoon medium has an impact on students 'vocabulary achievement at eleventh grade students in SMA Swasta GKPI Padang Bulan Medan. After calculating the data, the writer discovered that alternative hypothesis ( $H_a$ ) was accept, whereas null hypothesis ( $H_o$ ) was rejected. It because  $t_{count}$  was higher than  $t_{table}$  with degree of freedom ( $df$ ) =  $N_a + N_b - 2 = 38$  at  $p$  (5%) =  $3,15 > 1,68$ . Regarding to the calculation of the tests, the writer concluded that,  $H_a$  is accepted, which means Line Webtoon medium have significant effects on student's vocabulary achievement at eleventh grades students in SMA Swasta GKPI Padang Bulan Medan.

### CONCLUSION

This study's result offered in line with the data that was evaluated in the previous chapter. Following a statistical study of the influence of utilizing Line Webtoon medium on student's vocabulary achievement in SMA Swasta GKPI Padang Bulan Medan, the writer concluded that:

1. Utilizing Line Webtoon media could become one of a good way in teaching English vocabulary.
2. Line Webtoon media significantly affected on students 'vocabulary achievement. It showed from the differences of mean scores from both groups. Mean score of experimental groups (82,25) were higher than control group (71,25).  $T_{count} > T_{table}$  ( $P = 0,05$ )  $df$  (38), or  $3,15 > 1,686$  ( $P 0,05$ ).
3. Alternative hypothesis ( $H_a$ ) was accepted, whereas null hypothesis ( $H_o$ ) was rejected. Therefore, it may be inferred that utilizing Line Webtoon medium has an impact on the vocabulary achievement of students, in SMA Swasta GKPI Padang Bulan Medan.

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