

**THE EFFECTIVENESS OF USING INSTAGRAM APPLICATION ON STUDENTS'  
VOCABULARY SIZE IN PAPUA SENIOR HIGH SCHOOL**

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**Abstract**

This study aimed to investigate the effectiveness of using the Instagram application to increase the vocabulary. This research employed an experimental design. The populations were the students of SMA Negeri 1 Sentani in the academic year 2021/2022. The sample consisted of 34 students from grade 11 (19 females and 15 males) chosen by using a purposive sampling technique. The instruments of this research were pre-tests, treatment and post-tests. The data was analyzed by using SPSS for Windows. As per the data, the experimental group experienced improvement in their understanding of using the Instagram application to increase the vocabulary and order indicated by the post-test mean score (84.7). The gain score of the experimental group was (55.7). Another supporting indicator is the t-test value, which was higher than the t-table value ( $8.379 > 2.035$ ). The result of this study showed that experimental performance had improved significantly. Which mean null hypothesis ( $H_0$ ) was rejected and alternative hypothesis ( $H_a$ ) was accepted. As a result, it was determined that the Instagram application was effective in increasing the size of students' vocabulary. The author suggests that more research be completed on using Instagram as a teaching tool to improve students' four skills: listening, reading, speaking, and writing.

**Keywords:** Instagram, Vocabulary, Senior High School

**INTRODUCTION**

Vocabulary is now a crucial part of learning a foreign language. This is significant because learning vocabulary may help language learners enhance their foundation. By expanding one's vocabulary, one might learn to acquire other talents. Aside from that, expanding vocabulary can assist pupils enhance their other English abilities such as listening, reading, speaking, and writing. This research is backed up by (Wulanjani, 2016) Vocabulary is vital in learning a language, both mother tongue and foreign language. It is one of the elements that unite the four language skills. Vocabulary should be taught alongside the four abilities of hearing, speaking, reading, and writing. However, many high school students in eastern Indonesia have not focused on expanding their English vocabulary. Some studies also suggested that many students had a lack of vocabulary. Students are less inclined to remember dictionary words.

Teachers did not strive to modify a class to help pupils in high school learn language. According to (Ivone, 2005), one of the reasons contributing to Indonesian students' poor level of English proficiency is a lack of vocabulary knowledge. This element might be one of the outcomes of how language is handled in the teaching and learning process.

So far, investigations on the effectiveness of using Instagram on students' vocabulary size have focused on two topics. First, research that investigate the influence of utilizing Instagram to improve vocabulary and listening skills from (Agustin & Ayu, 2021). This study focuses on expanding pupils' vocabulary more simply and interestingly by viewing captions or watching videos on Instagram. Second, studies on students' perceptions of Instagram-assisted vocabulary acquisition with vocabulary self-collection approach from (Verawati et al., 2021). This study focuses on improving students' vocabulary by employing an Instagram-assisted vocabulary self-collection technique. In line with the research above, utilizing the Instagram application can increase pupils' vocabulary in a variety of topics in Indonesia. The lack of awareness about the presence of the Instagram application as a learning medium for high school students in eastern Indonesia looking to increase their vocabulary.

The goal of this study is to address the flaws of earlier studies that did not pay attention to the varied features of difficulties associated with the efficacy of utilizing Instagram social media to develop vocabulary. As a result, the researcher was curious about the impact of utilizing Instagram on students' vocabulary size in SMAN 1 Sentani. The solution to this question includes a calculation and explanation of how to use the Instagram program to improve high school students' vocabulary.

This research begins with the claim that utilizing the Instagram program can increase students' vocabulary size. That is, the null hypothesis ( $H_0$ ) was rejected, whereas the alternative hypothesis ( $H_a$ ) was accepted. As we know that, Instagram is a platform that offers a variety of features that are ideal for students learning vocabulary. Furthermore, there are several English learning accounts that publish various things regarding English, such as captions, videos, images, vocabulary, and so on. Even students may express themselves by creating their own movies and sharing them on Instagram. Students will be more engaged and motivated as they learn new strategies for memorizing terminology. As a result, Instagram is a tool that can and will undoubtedly benefit, particularly in terms of expanding one's vocabulary. It can assist pupils learn more about speaking and writing abilities by improving their vocabulary.

## **1. Instagram**

To fully comprehend this research, we need to do an in-depth examination of the meaning of Instagram. Instagram, according to (Rivera-Lozada et al., 2022), is a social networking platform that allows users to publish photographs, videos, and other sorts of information. Instagram profiles that disseminate information on English courses in the form of images with English captions and long-duration films, such as IGTV, in which English is utilized are not uncommon. Instagram, on the other hand, is identified by (AL FATH, 2018) as one of the most popular social media platforms utilized by Generation Z students. It includes posting photos, 1-minute videos, Instagram stories, going live on Instagram to all of the account owner's followers, direct messaging, and linking to Facebook and Twitter, among other things. Meanwhile, according to (Hape, 2018), Instagram offers various aspects that might help with learning, such as publishing photographs or videos, commenting on other users' posts, and using hastags to group their posts. Instagram is one of the most popular social media platforms among students. As a result, the pupils are highly familiar with Instagram (Gunobgunob-Mirasol, 2019). To summarize, Instagram is a social media platform where users can share, learn, and debate information with others.

Instagram provides several advantages for English learners, particularly for expanding pupils' vocabulary. Instagram, according to (Salsabila, 2021), is a medium that has several benefits, including expanding vocabulary. Furthermore, Instagram is an SM application that does not limit posts or comments to a limited number of characters (unlike Twitter), and the EFL posts found on Instagram address different language features (for example, vocabulary, grammar, and pronunciation lessons), providing an opportunity to compare the learners' output amount, as well as the types and amount of feedback the learners receive in this platform, if any (Aloraini, 2018). Meanwhile, it is clear that kids require additional English understanding, such as vocabulary numbers and English grammar (Apriyanti et al., 2018).

## **2. Vocabulary**

Vocabulary is essential for learning English. Vocabularies, words, and their meanings have always been important in the early phases of language development. Languages would not

exist without words, which contain the meaning that speakers wish to transmit and the intentions that utterers want to express (Beyranvand & Rahmatollahi, 2021). According to Merriam-Webster (1828), vocabulary refers to a collection of words recognized by a person or a large group of individuals. It can also refer to a collection of specialized phrases in a particular field of study or activity ("the vocabulary of science"). It can refer to a tangible thing, such as a book, that defines or explains a collection of (typically alphabetized) terms. It may also refer to "a list or collection of accessible phrases or codes," "a set or list of nonverbal symbols" (such as maritime alphabet flag signals), and "a series of expressive forms employed in an art" (as in "the vocabulary of dance"). Following that, (Isazadeh et al., 2016) noted that, while many efforts have been made to establish an appropriate technique to teach vocabulary, the results have not always been satisfying. As a result, a basic question was raised to determine why vocabulary acquisition is such a difficult issue and what approach may best serve the objective of teaching vocabulary. Teaching vocabulary learning skills might be one solution to the vocabulary problem. According to research on language learning methodologies, vocabulary may be taught in a variety of ways, each with its own set of advantages and disadvantages. Essentially, vocabulary is a necessary component of learning different languages. Words are a component of language because they represent objects, activities, and thoughts that humans cannot express. Many scholars in the area have lately highlighted the crucial significance of vocabulary in learning a second or foreign language (Nurlaily, 2021). Teaching vocabulary is difficult, according to sudirman, as stated by (Yudha & Mandasari, 2021). The most effective media for teaching English vocabulary should be identified by the instructor. Improve students' vocabulary mastery by making studying more enjoyable, providing passion to students at some point throughout the studying process, and inspiring students to learn new terms (Arisman, 2021).

The English language has several words. According to (Nordquist, 2019), there must be agreement on what constitutes genuine language in order to arrive at a believable total. According to the editors of the 1989 edition of the Oxford English Dictionary, the reference work contains over 500,000 definitions. Because vocabulary is intended to be a sentence, vocabulary and structure cannot be separated (Sudharmono & Ali, 2016). The average dictionary has around 100,000 entries. Furthermore, (Wollacott, 2022) asserted that there are several sorts of vocabulary. These, like grammatical classes, can be separated into adjectives, nouns, and

verbs. They might also be separated into categories as varied as emotions, colors, animals, and human body parts, as with the many domains of semantics.

### **3. Senior High School**

SMA (High School) is the final level of secondary school required before entering higher education. SMA, sometimes known as high school in English, is the highest level of official secondary education in Indonesia. SMA is a public school, as opposed to SMK, which offers specific majors. SMA, SMK, and MA all have the same level and must be taken within three years. Students who have completed junior high school can continue their education at the upper secondary level, which is known as SMA (Rizma, 2021). Senior high school, on the other hand, is described as a school attended following elementary or junior high school and often consisting of grades 9 or 10 through 12.

The typical age of high school pupils ranges between 16 and 18 years old, while some may be younger or older. This indicates that high school kids are persons in the teenage and early adult growth stages, therefore it is natural for them to be really curious about anything in life. It is therefore not unexpected that the majority of juvenile delinquency cases occur among high school-aged youngsters, who are driven by curiosity and seek to discover their identity. High school is completed in three years and six semesters. The first class in high school was previously known as class 1, but since the establishment of the 12-year compulsory education program, it is better known as class 10, which is a continuation of class 3 in junior high school, precisely grade 9. Students must pass a graduation test (Viloria, 2016).

## **METHOD**

This research applied pre-experimental design. This research design was employed by the researcher to collect and analyse the data in order to get answer from the research question. The researcher used the one-group pretest-posttest design. The one-group pretest-posttest design involves a single groups that was pretested (*O*), exposed to a treatment (*X*), and posttested (*O*)(Gay et al., 2006). The following is the research design pattern of one-group pretest-posttest:

O <sub>1</sub>	X	O <sub>2</sub>
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**TABLE 3.1**

Where:

O<sub>1</sub>: Pre-test

The pretest is the test given to the students before they treat.

X: Treatment

For the treatment, the students will teach vocabulary by Instagram application.

O<sub>2</sub> : Post-test

The post-test the test after treatment to the students, the researcher give a similar test as give in the pretest.

The study was conducted SMA Negeri 1 Sentani which was located in Jayapura, Papua. There are 1.120 students in SMA Negeri 1 Sentani. Research instrument refers to any equipment used to collect the data. In order to, this study conducted from the following instrumentation. Test vocabulary, there were two kinds of tests to measure the ability of vocabulary, pre-test and post-test (Inayah et al., 2018). The data in this study comes from two sources: primary data and secondary data. Pre-test and post-test are the most important pieces of information. The second set of data includes attendance records and the lesson plans. The test was the vocabulary test which consist of 20 numbers. The tests were the completing to both pre-test and post-test.

According to (Sugiyono, 2006) states that population is composed of the generalization: object or subject that has quality and certain characteristics set by the researchers to learn and then take a conclusion. Then, the population of this research was the second-year students of SMA Negeri 1 Sentani in academic year 2021/2022. They consisted of 11 grade and 420 students; there were 34 students (19 female students and 15 male) taken as sample consisting of one class namely XI MIPA 1. The sample was chosen based on purposive sampling technique. According to (Tongco, 2007) the purposive sampling technique is a type of non-probability sampling that is most effective when one needs to study a certain cultural domain with knowledgeable experts within.

To collect data, the researcher used a vocabulary test as the instrument. From vocabulary test as the instrument to find out the students' score (Sukrina, 2010). The test consisted of 20 items, which were designed into a completion form and multiple choices. This study took place

during three meetings and spent 90 minutes in each meeting. The researcher used some of the procedures to collect data, such as pre-test, treatment, and post-test. Before giving the treatment, the researcher gave a pretest. The researcher gave a test about the vocabulary test. The objective of giving a pretest before treatment was to indicate the mastery level of students (students' prior knowledge) of the vocabulary of the second-year students. After that, in the treatment process, the researcher then taught vocabulary to the experimental class using Instagram feeds via power point that researcher had created, as well as shared material by printing photos from the Instagram feed that the researcher had screenshot. After giving treatment, the researcher gave a post-test. The content of the post-test is similar to the pre-test. The aim of the post-test is to find out the result of the treatment.

In this study, the researcher used the gained scores (Depdikbud, 1985). The student scores will be classified into several categories after the data has been calculated, such as excellent, good, fair, less, and poor. And also, the percentage of students' score, the mean scores difference between pre-test and post-test, the standard deviation of the data and the significant difference between students' pre-test and post-test by using t-test (Gay et al., 2006). Data analysis employed in this research was quantitative data analysis by using SPSS program to find out descriptive statistics (Kurniawan et al., 2019). This SPSS program will be used after all the data is complete and ready to be calculated.

## **FINDINGS**

The purpose of this study was to determine whether using Instagram as a learning medium may boost students' vocabulary. The categorization score on students' performance in increasing vocabulary components, the mean score, standard deviation, and the t-test of pre-test and post-test. These discoveries are as follows:

### **1. Students' classification Score**

#### **a. Mean Score and Standard Deviation.**

Mean score and standard deviation of students' pretest and posttest presented in the following table:

Table. 1 Mean score and standard deviation of pre-test and post-test

Test	Experimental Group	
	Mean	Standard Deviation
Pre-Test	67.4	18,9
Post-Test	84.7	11,7

Table 1 displays the mean and standard deviation of the experimental group's pre-test and post-test scores. In the pre-test, the mean score was 67.4 and the standard deviation was 18.9. The mean score (84.7) and standard deviation have significantly improved in the post-test (11,7).

b. T-test value of students.

For the level significance ( $\alpha$ ) = 0,05 and degree of freedom (df) = (N – 1= 33), the value of t-table is 2,035. The following table showed the result of the calculation.

Table. 2 T-Test Value of Students'

Group	T-test	T-table
N-Gain	8.379	2.035

According to table 2, the t-test value was 8.379 and the t-table value was 2.035. It demonstrates that the t-test value was greater than the t-table value ( $8.379 > 2.035$ ). This suggests that the experimental group improved significantly. The results showed that utilizing the Instagram program improved the pupils' capacity to acquire language. The null hypothesis (H0) is thus rejected, whereas the alternative hypothesis (H1) is accepted. According to the alternative hypothesis, pupils' vocabulary improved significantly after using the Instagram program.

## DISCUSSION

In this study, we discovered that the Instagram program can help pupils improve their vocabulary. Instagram can boost student vocabulary since it is an application that students can quickly use and has numerous functions, such as the ability to comment, record videos, and post videos and photographs of the vocabulary taught. The researchers employed tests, particularly pre-test and post-test, to examine the rise in students' vocabulary, and the findings indicated that there was an increase in student vocabulary following the researchers' treatment. As a result, the



Instagram application is ideal for increasing kids' vocabulary. Students should ideally utilize Instagram as a learning tool to expand their vocabulary.

In the discussion section, in addition to asking why seniorhighschool students used Instagram, this research also questioned why seniorhighschool students used Instagram. In general, things are continually evolving. The passage of time has been accompanied by more complex technical advancements. Because of the sophistication of this technology, additional aspects of the Instagram program may be utilized as media in learning English, particularly in expanding students' vocabulary. Several research have supported the facts stated above (Senolinngi et al., 2020; Verawati et al., 2021; Agustin & Ayu, 2021; Al Fath, 2018).

(Senolinngi et al., 2020) studied students interested in acquiring vocabulary in an ELT environment utilizing the Instagram platform. According to the survey data, the average score of students' interest in learning vocabulary using Instagram is 67,58. The lowest and maximum scores are 25 and 100, respectively. According to the average score of the questionnaire, the degree of interest is quite high. The difference in this study is that after receiving therapy from the researcher, there was a considerable rise in the test administered, namely the post-test, with a result of 84.7.

Furthermore, the title of the research conducted by (Verawati et al., 2021) was on the students' perspective in Instagram-assisted vocabulary learning using vocabulary self-collection approach. The vocabulary self-collection technique may be the best strategy since it attempts to capture students' attention and interest in learning English, motivate students to collect and acquire new vocabulary, and help students grasp essential terms in reading and comprehension abilities in a book. In contrast to this study, which use a vocabulary acquisition technique based on Instagram features and seeing the vocabulary offered by various Instagram accounts to learn English.

Furthermore, (Agustin & Ayu, 2021) evaluated the influence of utilizing Instagram to increase vocabulary and listening skills. Instagram is a popular social networking platform among youngsters due to its numerous fascinating features. Because many people enjoy this social media platform, and researchers have several accounts that can be very useful for gaining knowledge about English, particularly to improve vocabulary and listening skills, the researchers conducted research to determine how influential Instagram is for increasing vocabulary and improving listening skills. According to this study, the Instagram application is a social

networking platform that is recognizable to everyone, even secondary students, and that can be accessed at any time and from any location, especially while learning vocabulary.

A study conducted by (AL FATH, 2018) The study's title referred to Gen Z students' opinions about using Instagram to increase their vocabulary. The findings on increasing vocabulary on Instagram are part of Gen Z's learning style, which is edutainment, and Gen Z favors English content in the form of videos over other media. The distinction was that this study was conducted in senior high school and employed the Instagram program.

In contrast, a research conducted by (Salsabila, 2021) explored the effectiveness of online English learning using Instagram in improving students' vocabulary. According to the findings of this study, students do not enhance their understanding of English vocabulary while utilizing Instagram as a learning medium. Instagram is a medium that provides numerous benefits, including expanding vocabulary; nevertheless, in this study, students tend to use Instagram for enjoyment rather than learning tools; as a consequence, the findings of this study show that four students received the highest score. Only two kids received the lowest score before receiving therapy. After the final exam (post-test), there was an increase in poor scores for pupils. As a result, Instagram is ineffective since children are unable to utilize social media wisely, preventing students' vocabulary from growing.

Instagram, based on the information presented above, is an application that may be utilized as a learning medium. This program also includes a lot of useful functions. However, while Instagram has numerous perks that may be utilized as a learning medium, if students do not use it appropriately, they will become lazy and their learning will not increase.

## **CONCLUSION**

The usage of the Instagram application in teaching English vocabulary assists second semester SMA Negeri 1 Sentani students in improving their English vocabulary. It was demonstrated by the experimental group's overall higher mean post-test score (84.7). It is also supported by the experimental group's gain score (55.7). Furthermore, because the t-test value was greater than the t-table value ( $8.379 > 2.035$ ), it implies that the whole vocabulary should be taught using the Instagram application because the fullness of the resources impacts the success of the learning process. The researcher discovered in this study that the Instagram application

increased students' vocabulary size and that utilizing this application in English instruction can enhance the fourth skill of English such as hearing, reading, speaking, and writing.

This research might be utilized as a supplement for English instructors at SMA Negeri 1 Sentani. It is recommended that students learn English vocabulary faster and better by using the Instagram program. Because they are taught all connected components related to vocabulary, the Instagram application helps pupils expand their vocabulary size. Furthermore, this application encourages students to be more involved in the classroom and to learn English, particularly vocabulary. The students are expected to study using Instagram as one of the options for expanding their vocabulary and learning about four English skills: listening, reading, speaking, and writing. This study may inspire other researchers to perform a study using the same application in additional elements of English to determine whether or not the Instagram application can be used to increase students' skills in other elements of English or in a different topic.

This study solely included pupils from SMA Negeri 1 Sentani. As a result, this study is far from generalizable. Furthermore, due to the study's deadline, time restrictions posed a barrier in data collecting. The author of this study recommends additional research on utilizing Instagram as a teaching tool to improve students' four skills: listening, reading, speaking, and writing. As a result of this research, the author advised that teachers utilize the Instagram program because it may inspire and motivate children to learn English more efficiently. The Instagram program also has several unique features that allow kids to study while simultaneously entertaining themselves.

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