ABSTRACT
This study aims to: (1) find out whether collocation improves students' vocabulary competence (2) find the type of collocation that is most developed in students' vocabulary competence. This research combined qualitative data and quantitative data, where quantitative data was used to support qualitative data. The subject in this research were high school students of grade XI Wellington Intelligence School. The number of students was 39 students consisting of two classes (22 students in science class and 17 students in social class). The instruments used consist of interviews, observations, documents, and tests. This study adopted descriptive statistics to describe the main features of the data set. The average score of each test, including pre-test and post-test, were used to analyze the data. The results showed that collocation can improve students' vocabulary competence. The students' initial average was 70 for science students and 68.23 for social students. While the final average value showed an increase in the value of 82.72 for science students and 80.58 for social studies students. There were more student errors in the interpretation of lexical collocations than in the interpretation of grammatical collocations.

Keywords: Vocabulary Competence, Building Grammar, Lexical Collocation

INTRODUCTION
As a user of English as a foreign language, it is undeniable that English is a frightening specter for students in Indonesia. With minimal knowledge and vocabulary, students often find it difficult to understand the meaning conveyed. Moreover, the meaning may be very different from what is intended, when, on the other hand, English itself is the most widely spoken language in the world.

There are many factors that can support a person's English skill, but one of the most important is vocabulary. Hornby (2006:1645) stated that all the words that one knows or uses when talking about a specific subject in a specific language are referred to as vocabulary. Needless to say, nothing can be understood without vocabulary. Jamalipour and Farahani (2012: 107) supported this argument by stating that vocabulary is widely considered as the primary communication instrument.

It is undeniably true that students in Indonesia, as users of English as a foreign language, tend to underestimate the importance of vocabulary. They claim that using the proper grammar will be more effective than simply using proficient vocabulary. Whereas, Ghezelseflou & Seyedrezaei (2015:58) stated that learning vocabulary can be considered as a first step
and an essential part of mastering a foreign language. Learning a language requires a good understanding to interpret the meanings contained in a sentence. In this case, the proper use of the word match becomes one of the things that need to be emphasized in interpreting the language (Yousefi, et.al. 2012:87).

Ghezelseflou and Seyedrezaei (2015:58), in their research, mentioning that vocabulary is at the foundation of language, making it crucial for all language learners. Every language has a vocabulary, and individuals can understand every word spoken or written if they have a good vocabulary. Most English learners place a greater emphasis on the usage of syntax and structure than on their vocabulary. Students will undoubtedly be able to understand the language better if they have a large vocabulary. Learning vocabulary, according to Ghezelseflou and Seyedrezaei (2015:58), can be regarded a first step in mastering a foreign language. Furthermore, according to Thornbury (2002: 28), “Without grammar, very little can be conveyed, and without vocabulary, nothing can be conveyed.”

According to Richard and Renandya (2002:255), vocabulary is a vital element of language proficiency since it determines how well learners listen, talk, read, and write. Vocabulary is vital in language acquisition since it helps students enhance their language skills. The goal of mastering vocabulary is to create learners who are fluent in English.

To summarize, vocabulary is the essence or core of language, and it is used in all of the competencies (reading, writing, speaking, and listening) that are necessary for understanding a foreign language. Apart from grammar and structure, one of the things that learners must grasp in order to have strong language competency is vocabulary.

To connect a word with another word it is needed to use collocation (O’Dell, 2008:4). For example, public goes with transportation, pay goes with attention, and stand with up. Therefore, collocation, in particular, is an important feature of vocabulary. Words that are positioned or found together in predictable patterns in speech and writing are referred to as collocations. Generally, vocabulary and collocations, in particular, have significant roles in language proficiency (Ebrahimi, et.al, 2014:152). Collocation is thought to be a factor that distinguishes native and foreign learners.

Words absolutely cannot stand alone when it comes to connecting them to make sense. It is necessary to use other terms to collocate the word. Every language has its own set of collocations. Collocation is defined by Seretan (2011:11) as linguistic chunks memorized as full units in order to develop language fluency. It is a pair of words made up of two or more words that are frequently used together in written or spoken form.

Collocation is a phrase used to describe a set of words that appear in a language repeatedly. The meaning of these kinds of co-occurrences can be grammatical or lexical (Carter, 2012:25). One of the issues of lexicography, which is lexical semantic, is collocation. Lexicography is concerned with the meaning and application of words, and it is crucial in the production of dictionaries (Biber et.al, 2000:21). Meanwhile, lexical semantics, also known as lexico semantics, could be defined as the ‘study of word meaning’, but in practice it is often more specifically concerned with the study of lexical (i.e. content) word meaning, as opposed to the meanings of grammatical (or function) words. This means that lexical semanticists are most interested in the open classes of noun, verb and adjective and with more ‘contentful’ members of the adverb and preposition classes (for instance over but not of). Collocation is a phrase that describes lexical relationships.
Unfortunately, combining words that are semantically compatible in principle does not necessarily result in appropriate collocations, for instance *many thanks* is an acceptable collocation in English but *several thanks* is not, in the same way that *strong tea* is well-formed but *powerful tea* is not.

Furthermore, Ebrahimi (2014:152) claims that vocabulary and collocation, in particular, have an important influence in language proficiency. A collocation is made up of two words that are regularly combined in native speakers' minds at the same time. Many linguistic studies have attempted to define, describe, and categorize English collocation. It includes nouns, adjectives, verbs, and adverbs, as well as grammatical and lexical collocations.

So, collocation can be defined as the use of word chunks that are closely related and occur frequently in a language to make it sound natural and proper to native speakers. Collocation also aids students in gaining linguistic fluency.

Therefore, English fluency can be improved by using collocations. The ability to use English fluently is required of language students. Hill (as stated in Lewis, 2000:45) mentioned that collocation is vital since the way words are combined is fundamental to all language use. It allows language learners to think efficiently about complicated topics and communicate more effectively. Native-like collocations, according to Shin (2006:10), assist learners in speaking and writing in a native-like manner. Since native speakers frequently utilize collocations, language learners can recall lexical patterns by learning them.

Jaya et.al (2019:1), in their study of academic achievement of English program students, found that there was a positive correlation between the ability of students to use English collocation and their academic achievements. Which can be said, the greater a person's comprehension of collocation, the better his English skills will be. This argument is supported by Bui (2021:99) by mentioning that collocation errors imply that many students are unfamiliar with collocations, which has an impact on their proficiency.

However, apart from the importance, one of the major challenges that language learners encounter in honing their English skills is the collocation itself. Different languages come from different origins and what makes languages are distinct from one another due to differences in language and information transmission methods. This discrepancy might be attributed to a variety of factors, including culture, people, natural conditions, and so on. This is also what causes collocations in each country to be different. Nevertheless, in other countries, this combination of words may have different meanings, especially in Indonesian. For example, *go home* if it is translated into Indonesian literally will be *pergirumah* which actually that English collocation has the meaning of *returning to home* which Indonesians do not own this sort of collocation.

In developing English competence, the use of collocation in English can make their English proficiency better by giving a natural impression on the language itself. According to Webb & Kagimoto (2011, referenced in Namvar, 2012, p.41) stated that increasing knowledge of collocation not only allows the learners to improve levels of accuracy but also assists fluency. Unfortunately, collocations are only studied at the upper-intermediate and advanced levels (Horner, 2015:1), resulting in a lack of knowledge of collocations among new English language learners.

**Type of Collocation**

Different terminologies are used to classify collocations depending on how they are approached (Roohani, 2011:57). It means that collocation can be classified
Grammar Collocation

Grammar collocation is a sort of collocation in which a verb or adjective, for example, must be followed by a certain preposition. Bahns in (1993: 57) as cited in Shokouhi (2010:2) mentioned that the grammatical collocation consists of a noun, or an adjective or a verb, plus a particle (a preposition, an adverb or a grammatical structure such as an infinitive, a gerund, or clause). The examples are as follows: extend to, good at, fall for, to be afraid of, at night, are grammatical collocations that are lexicalized as single units with formulaic meanings and a high likelihood of co-occurrence. They can be idiomatic because their meanings do not always correspond to the meanings of the elements, such as run out of (to reach an end of stock, supplies), or up to (until). Similar grammatical combinations, on the other hand, do not have the same strong sense of belonging.

1. noun + preposition

Not all noun + preposition combinations can be considered as collocations due to the highly predictable meaning of some prepositions, such as of and by. So, noun + of / by combinations are considered free combinations. The following phrases are examples of noun + preposition collocations: blockade against, apathy towards.

2. noun + to + infinitive

There are five syntactic patterns in which noun + to + infinitive construction is most frequently encountered, (Moehkardi, 2002:8):

a. It was a pleasure (a problem, a struggle) to do it.

b. They had the foresight (instructions, an obligation, a permission) to do it.

c. They felt a compulsion (an impulse, a need) to do it.

d. They made an attempt (an effort, a promise, and a vow) to do it.

e. He was a fool (a genius, an idiot) to do it.

3. noun + that-clause

The noun + that-clause combinations that are considered collocational are those using subject pronouns. For example: We reached an agreement that she would represent us in court.

4. preposition + noun

Any combinations of preposition and noun can fall into this category, however, the choice of preposition with certain noun is not at random. For example: by accident, in advance, in agony, etc.

5. adjective + preposition

Some adjectives are followed by a prepositional phrase. The adjective+ preposition combination that is considered collocational is the one that occurs in the predicate (verb-less clause). However, past participial adjective followed by preposition by is not considered collocational because this construction is regular and predictable. For example: angry at, hungry for.

6. adjective + to + infinitive

These adjectives occur in two basic constructions with infinitives.

a. adjectives with dummy subject “it” such as it was necessary to work; also possible it was necessary for him to work (the insertion of prepositional phrase).

b. adjectives with real and animate subject, such as: She is ready to go; or with inanimate subject, such as: It (the bomb) is designed to explode at certain temperatures; or with either animate or inanimate subject: She was bound to find out or It (the accident) was bound to happen.

7. adjective + that-clause

Some adjectives can be followed by that- clause, for example: She was afraid that she would fail her examination.

8. verb + preposition

Verb and preposition collocations are groups of words made up of a verb followed...
Lexical Collocation

The most common lexical collocations are nouns, adjectives, verbs, and adverbs, which combine to generate a word that can be related to other words. Lexical collocation is distinct from grammatical collocation in that it lacks grammatical elements like prepositions, infinitives, and clauses.

Furthermore, because lexical collocations are made up of a combination of word components, they can occasionally have meanings that are not literal. This is referred to as a particular collocation. This lexical collocation is referred to be special since it has a meaning that is not literal. As an example, for the collocation ‘icy cold’. If it is translated into Bahasa literally, then the collocation has ‘esdingin’ as the meaning. However, the true interpretation of this collocation is ‘extremely cold’ or in Bahasa Indonesia ‘sangat dingin’.

To summarize, the key characteristics of lexical collocations are that their meanings mostly reflect the meanings of their lexical elements and that lexical item sequences commonly co-occur, despite the fact that most native English speakers are unaware of collocations. Benson et al. (1986:57), classified lexical collocation into seven categories: verb + noun, adjective + noun, noun + verb, noun 1 + noun 2, adverb + adjective, verb + adverb, and adverb + verb.

1. verb + noun

Verbs and nouns have a lot of fixed collocations that are set phrases. Using the correct verb and noun collocations is the difference between natural and unnatural English, for example: pay attention, make money, take notes, etc.

2. adjective + noun

Collocations are a set of words or a collection of phrases that are frequently used together to communicate a new meaning. By placing adjectives before nouns, adjectives and nouns collocations can be created, for example: regular exercise, steady flow, additional benefit, big failure, etc.

3. noun + verb

The verb names an action characteristic of the person/things designated by the noun, for example: results indicate, bomb blast, findings suggest, etc.

4. noun 1 + noun 2

Noun plus noun collocation is a kind of words combination that sound nature to native speakers. The phrase “food stamp” does not sound natural for people who speak English all theist love. The correct one will be “food coupon”.

5. adverb + adjective

The adverb will be employed to modify the adjective in this form of collocation, giving it a different meaning than before, for example: widely believed, sound asleep, strictly accurate, etc.

6. verb + adverb

In this type of collocation, the verb is placed before the adverb in order to describe or provide information on the verb, for example: laughed loudly, act rashly, appreciate sincerely, etc.

7. adverb + verb

This type of collocation has the same purpose as the previous type, which is to modify and provide more explanation to the verb. However, the difference lies in the position of the adverb that is placed before the verb, for example: vigorously debated, seriously confronted, simply showed, etc.

From several studies that have been done previously, researchers will examine the same component, which is collocation used by language learners. However, there are some things that are different from previous research. First, the researcher will see whether the use of collocation by
students is able to improve students' vocabulary understanding or not. Second, unlike previous studies, the researcher will focus this research on XI\textsuperscript{th} grade high school students. The sample of this research is XI\textsuperscript{th} grade high school students at SMA Wellington Intelligence.

These reasons make researcher to examine the improvement of students' vocabulary competence by building grammatical and lexical collocations with the hope of being able to help students to expand their English competence.

The research's ultimate aim is to motivate students to use collocation to expand their skill in English. Based on the problems of the study, the objectives of the research are:

1. To find out whether collocation improves students' vocabulary competence.
2. To find the type of collocation that most developed in students' vocabulary competence.

2. Research Design

Classroom action research was carried out in this study. According to Wallace (1998:13), action research is a type of research that involves carefully gathering and analyzing data from a lesson plan in order to make judgments about the future. Furthermore, according to Burns (2010: 2), action research is part of a broader trend in education that has been underway for some time. It has to do with the concepts of "reflective practice" and "teacher as researcher."

There are some processes in action research. Action research typically incorporates four main phases in a research cycle, according to Kemmis and McTaggart in Burns (2010: 7). (1) planning, (2) action, (3) observation, and (4) reflection are the four phases of a cycle. Below is the diagram of Kemmis and Taggart action research.

Based on the diagram above, the researcher used two cycles which may increase if the previous cycle does not show the expected results. Each cycle consists of four stages, namely planning, acting, observing, and reflecting.

1. Planning

The first step in conducting classroom action research is to plan. According to Kernan and Howden (2005:45), three questions should be addressed in the planning part. These are the questions: What is going on in my class? In what way is it a problem? I'm not sure what I can do about it. The questions cause the researcher to be aware of what transpired in the classroom or school and to respond to them based on what actually happened. The researcher begins the action in the classroom after answering all of the questions. The researcher had conducted the pre-test as the first step. Pre-testing is used to assess students' fundamental knowledge.

2. Acting

In action section, after making a plan for the research, the researcher did the plan application in the classroom for real. The researcher tries to design a treatment and provide it to the class based on the responses to those three questions so that the students' performance improves.

3. Observing

It takes place in a classroom with all of the participants. Someone will watch the learning process while it is taking place, based on some questions about the teaching learning process put on the papers. The researcher will reflect on the learning process based on the observation when it is completed.

4. Reflecting

The researcher's final stage is to reflect on the entire learning process utilizing the findings of the observation. The purpose of reflecting is to determine whether
or not a re-plan for the future treatment is required. It is required as a means of determining how students respond to the learning process.

**Research Procedures**

Based on the diagram above, there were two cycles that were applied in this research. Each cycle has four steps, which are plan, action, observe, and reflect.

1. **Plan**
The study was conducted in two cycles to know the students’ improvement in interpreting meaning. Cycle one was conducted for treatment, while cycle two was conducted for treatment and final test.

2. **Action**
After the planning section, the researcher did the second section which was the action. The researcher began from pre-test on first meeting. After the pre-test results are obtained, the researcher explained the concept of collocation and how to interpret the meaning naturally. After cycle one was done, the researcher observed and reflected on the whole teaching-learning process, so that, the researcher could find the drawback of the teaching and learning process. Then, the researcher did the cycle two, beginning with the treatment and was be ended with the final test.

3. **Observe**
There were two main points that will be observed which were; students’ behavior during the teaching and learning process and students’ responses toward the learning process by using the collocation. At the end of cycle two, the researcher conducted the final test in which they will re-interpret the previous pretest and also another texts. They were asked to filling the questionnaires as well. It was used to collect the students' opinion about the teaching-learning process in the classroom and their feeling during the learning process by using the technique used.

4. **Reflection**
In this last step, the researcher evaluated all the learning processes to know whether there is an improvement in students’ vocabulary or still at the same level. The researcher used the data from the observation sheet and questionnaire to reflect on the whole learning process.

**Source of Data**
The data was taken from students of class XI high school at Wellington Intelligence School. The number of students is 39 students consisting of two classes, which are science class with 22 students and social class with 17 students.

**Technique of Collecting Data**
In this classroom action research, the researcher combined qualitative data and quantitative data, where quantitative data were used to support the qualitative data. To collect the data, the researcher also used some ways, that can be seen in the table below.
1. Technique of Collecting Data

<table>
<thead>
<tr>
<th>Technique</th>
<th>Stage</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interview</td>
<td>1. Identifying the problem</td>
<td>1. Transcript of interview</td>
</tr>
<tr>
<td></td>
<td>2. Evaluating and reflecting</td>
<td>2. Students' achievement</td>
</tr>
<tr>
<td>Observation</td>
<td>1. Identifying the problem</td>
<td>Field notes (model of teaching and students activities)</td>
</tr>
<tr>
<td></td>
<td>2. During the action</td>
<td></td>
</tr>
<tr>
<td>Documents</td>
<td>During the action</td>
<td>Students' answer sheets</td>
</tr>
<tr>
<td>Tests</td>
<td>1. Planning</td>
<td>Students' score of pre-test and posttest</td>
</tr>
<tr>
<td></td>
<td>2. Evaluating and reflecting</td>
<td></td>
</tr>
</tbody>
</table>

1. Qualitative Data

a. Interview

In this interview session, the researcher will take samples from several students. The students selected are two students who show significant improvement and two students who do not experience an increase. This interview is conducted to see students' responses to how effectively the collocation is used in developing their English language skills.

b. Observation

It will assess the students’ behaviors changing during the research. It contains students’ participation, behaviors, interests, improvements, and difficulties. It will be used to provide qualitative information. Moreover, it is made to obtain the data about the situation of the classroom activities during the learning process.

c. Documents

Some documents will be taken in this research are:

- Field Notes

  These notes will be used to inform on what is happening in the classroom, the teaching process, and students' behavior.

They will be utilized to keep track of what is occurring in class. Each observation will be noted by the researcher which will be used to acquire feedback from the students.

- Students’ answer sheet

  There will be pre-test and post-test answer sheets in this research. The pretest will be given to identify the students’ vocabulary before the method is applied while post-tests will be given to measure the enrichment of students’ vocabulary after applying colocation in the class.

1. Quantitative Data

Test

Pre-test and post-test are used to collect numerical data. The goal of the data collection is to find out how much collocation influences students' vocabulary growth. The data is analyzed using descriptive statistics to assess if the students’ posttest scores have improved.

Technique of Analyzing Data

Data analysis is a way for documenting and interpreting data collected throughout the teaching learning process. Tests and questionnaires were used to collect data. The assessments offered information about the students’ progress in increasing their
vocabulary by giving a task to re-interpret the pre-test.

To analyze the qualitative data, the researcher will adapt the Interactive Model by Miles and Huberman (1992:15), such as:

1. Data Reduction
   The process of selecting, concentrating, simplifying, abstracting, and manipulating data that appears in written-up field notes or transcriptions is known as data reduction. Throughout the life of any qualitatively focused project, data reduction occurs on a constant basis. Even before the data are gathered, anticipatory data reduction takes place as the researcher determines (sometimes without realizing it) which conceptual framework, cases, research questions, and data gathering procedures to use as the data collection progresses. There are more data reduction occurrences (writing summaries, coding, teasing out themes, making clusters, making partitions, writing memos). After fieldwork, the data reduction/ transformation process continues until the final report is done.

2. Data Display
   Data display is the second step of analysis activity. A display, in general, is a structured, compacted collection of data that allows for conclusion drawing and action. The design and use of displays, like data reduction, are not separate from analysis; they are a component of it, and most often utilize narrative form to make the verification.

3. Conclusion Drawing and Verification
   The drawing and verification of conclusions is the third step in the analysis process. From the start of data collection, the qualitative analyst starts to decide what things mean—is nothing regularities, patterns, explanations, possible configuration, causal flows, and prepositions.

   To analyze the quantitative data, the researcher will adopt descriptive statistics to describe the main features of a collection of data. Instead of being utilized to back up inferential conclusions about the population, the goal is to quantitatively summarize a data collection. The mean score of each test, including pre-test and post-test, will be used by the writer. These are used to see whether the students’ achievements before and after the activity differ significantly.

The mean formula is stated as follows:

\[
\bar{x} = \frac{\Sigma x}{N} \quad \bar{y} = \frac{\Sigma y}{N}
\]

Where:
\(\Sigma x\) = The sum of students’ score before the action
\(\Sigma y\) = The sum of students’ score after the action
\(\bar{x}\) = Means of students’ score before the action
\(\bar{y}\) = Means of students’ score after the action
\(N\) = Number of sample (students)

3. Research Findings and Discussion
   In this study, the researcher took two types of data, namely qualitative data and quantitative data. Qualitative data, which analyzed qualitatively, were taken from the results of observations, questionnaires and interviews with students. Meanwhile, quantitative data, which analyzed quantitatively, were taken from the mean (average score) of students in the vocabulary tests that were carried out. This research was conducted in two classes from 11th grade at Wellington Intelligence High School. This study was completed in two cycles, where both cycles consisted of four steps (planning, acting, observing, and reflecting). The first cycle was carried out in three meetings, including the pre-test. The second cycle was also held in three meetings. At the end of each cycle, the students were given a post-test as an evaluation material.

The Implementation of Classroom Action Research
Cycle I
The first cycle consisted of three meetings, where the researcher was the subject teacher in the two classes themselves. Therefore, the researcher used teaching time as research time. Based on the classroom action research procedure, there are several steps that have been taken in the first cycle

a. Planning
   In this initial step, researcher prepared some materials that would be used in conducting a Class Action Research based on the problems students encountered when learning vocabulary:
   a) Giving pre-test to students as an initial reference in this research.
   b) Determine the reading text that would be interpreted by students.
   c) Make a study plan that would be used by researchers in the learning process.
   d) Prepare evaluation tests regarding the material provided.

   Here, the researcher has conducted a pre-test to determine the basic ability of students in using collocation. Action
   The action in the first cycle was carried out by carrying out the teaching and learning process using a previously prepared teaching plan. At the first meeting, the researcher asked the students to read the reading text available on page 60 of their textbook entitled 'An Ice-Cold Summer’. At this meeting, the researcher asked the students to take turns telling the main points and conclusions from the contents of the text as a whole. Overall, the students were able to retell the contents of the text even though it was lacking in detail.

   At the second meeting, the researcher explained what collocation is and its two types, namely grammatical and lexical collocation. At this stage, the researcher gave some examples of collocations and how to interpret them in sentences so that the sentences seem natural when translated.

   In the third meeting, the researcher repeated briefly the collocation explanation to refresh the students' memory about collocation. The researcher then asked the students to go back to the previous reading text and reread the contents of the text. The post-test was finally given at this meeting to examine how well the students understood the concept of collocation. Students were given ten collocation questions containing five grammatical questions and five lexical questions. The post-test results can be seen in the table below:

### Table 2. The result of Grade XI Isaac Newton (Science) test in Cycle 1

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Correct Number of Lexical Collocation Questions</th>
<th>Correct Number of Grammatical Collocation Questions</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AJA</td>
<td>2</td>
<td>4</td>
<td>60</td>
</tr>
<tr>
<td>2</td>
<td>AY</td>
<td>2</td>
<td>5</td>
<td>70</td>
</tr>
<tr>
<td>3</td>
<td>CT</td>
<td>3</td>
<td>4</td>
<td>70</td>
</tr>
<tr>
<td>4</td>
<td>CC</td>
<td>4</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>5</td>
<td>CS</td>
<td>4</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>DCG</td>
<td>3</td>
<td>4</td>
<td>70</td>
</tr>
<tr>
<td>7</td>
<td>EL</td>
<td>3</td>
<td>4</td>
<td>70</td>
</tr>
<tr>
<td>8</td>
<td>IPWW</td>
<td>2</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>9</td>
<td>JSS</td>
<td>4</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>10</td>
<td>JAT</td>
<td>3</td>
<td>5</td>
<td>80</td>
</tr>
</tbody>
</table>
From the results of the post-test cycle 1 obtained from the science class with total of 22 students, the results of the scores were formulated as follow:

\[
\bar{x} = \frac{\sum x}{n}
\]

\[
\bar{x} = \frac{1540}{22} = 70
\]

Table 3 The result of Grade XI Adam Smith (Social) test in Cycle 1

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Correct Number of Lexical Collocation Questions</th>
<th>Correct Number of Grammatical Collocation Questions</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CT</td>
<td>4</td>
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<td>50</td>
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<td>FS</td>
<td>2</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>10</td>
<td>GA</td>
<td>2</td>
<td>4</td>
<td>60</td>
</tr>
<tr>
<td>11</td>
<td>JA</td>
<td>3</td>
<td>5</td>
<td>80</td>
</tr>
<tr>
<td>12</td>
<td>JA</td>
<td>2</td>
<td>5</td>
<td>70</td>
</tr>
<tr>
<td>13</td>
<td>KSL</td>
<td>2</td>
<td>5</td>
<td>70</td>
</tr>
<tr>
<td>14</td>
<td>M</td>
<td>1</td>
<td>5</td>
<td>60</td>
</tr>
<tr>
<td>15</td>
<td>MA</td>
<td>3</td>
<td>5</td>
<td>80</td>
</tr>
<tr>
<td>16</td>
<td>R</td>
<td>4</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>17</td>
<td>S</td>
<td>2</td>
<td>5</td>
<td>70</td>
</tr>
</tbody>
</table>

\[
TOTAL (\sum x) = 1160
\]

\[
MEAN (\bar{x}) = \frac{1160}{17} = 68.23
\]

From the results of the post-test cycle 1 obtained from the social class with total of 17 students, the results of the scores were formulated as follow:
Based on the table above, it can be seen that the average learning outcomes of the two classes of grade XI of Wellington Intelligence School were 70 (seventy) and 68.23 (sixty-two point twenty-three). If the student scores in the first cycle were grouped into five categories, then the results obtained were as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Score</th>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>80-100</td>
<td>Very good</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>70-79</td>
<td>Good</td>
<td>17</td>
</tr>
<tr>
<td>3</td>
<td>60-69</td>
<td>Satisfactory</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>50-59</td>
<td>Enough</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>0-49</td>
<td>Bad</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>39</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table above showed that of the 39 students who took the test in the first cycle, 13 students were in the very good category, 17 students were in the good category, 4 were in the satisfactory category, 5 were in the enough category, and no student was in the bad category. With these results, the researcher decided to continue to the second cycle.

b. Interview
The data of students’ interview response were obtained through interview held in cycle 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Is mastering vocabulary important?</td>
<td>yes (27), maybe (9), not really important (2), no (1)</td>
</tr>
<tr>
<td>2</td>
<td>Is learning the meaning of vocabulary difficult?</td>
<td>very difficult (23), difficult (8), mediocre (5), not difficult (3)</td>
</tr>
<tr>
<td>3</td>
<td>How wide is your vocabulary?</td>
<td>very wide (2), mediocre (28), not wide (9)</td>
</tr>
<tr>
<td>4</td>
<td>Does understanding the concept of collocation increase your vocabulary?</td>
<td>my vocabulary increase (7), increase but a little (21), not at all (9), I don’t understand (2)</td>
</tr>
<tr>
<td>5</td>
<td>Does your translation seem natural now?</td>
<td>yes (5), it’s improved but not a lot (24), just the same (10)</td>
</tr>
</tbody>
</table>

4. Conclusions
Based on the results of research and data analysis obtained, it can be seen that:

1. Collocation can improve students' vocabulary competence. The starting average of students is 70 for science students and 68.23 for social students. Meanwhile, the final average score showed an increase in scores with 82.72 for science students and 80.58 for social studies students.

2. There were more students' errors in the interpretation of lexical collocations than in the interpretation of grammatical collocations.
REFERENCES


Seretan, V. 2011. Syntax-Based Collocation Extraction (Text, Speech and Language Technology Series Vol. 44), Dordect: Springer.


