INCREASING STUDENTS' VOCABULARY MASTERY BY USING

CUISENAIRE RODS AT SMPN 1 KAUMAN PONOROGO

THESIS

By

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ABSTRACT

NURCAHYATI, RICA CERLY. 2018. *Increasing Students' Vocabulary by Using Cuisenaire Rods at SMPN 1 Kauman Ponorogo.* **Thesis,** English Education Department, Tarbiyah and Teacher Training Faculty, State Institute for Islamic Studies of Ponorogo. Advisor Dra. Aries Fitriani, M.Pd.

Key Words: Increasing Vocabulary, Cuisenaire Rods

Vocabulary is a medium for communication that is needed for using words to form sentences. Vocabulary is a key in language, and also a kind of bartering tool: it is used to share ideas in communication. Vocabulary knowledge is often viewed as a critical tool for second language learners because a limited vocabulary in a second language impedes successful communication. With this information in mind, this study aims to describe how Cuisenaire Rods can increase students' vocabulary mastery at SMPN 1 Kauman Ponorogo in the year of 2017/2018.

This investigation was based on Classroom Action Research (CAR) conducted in two cycles in April 2018. The subjects of this research were 28 students in class 8A at SMPN 1 Kauman Ponorogo. Data collection procedures included tests, field notes, and documentation. The researcher's analysis compared pre-test and post-test results in order to measure the impact of Cuisenaire rod techniques on students' levels of vocabulary mastery and engagement.

The results indicate that using Cuisenaire rods made the students of class 8A at SMPN 1 Kauman Ponorogo become more actively engaged in the English teaching and learning process, especially as it pertains to increasing vocabulary mastery. This is evident in the result data from each research cycle. In cycle 1, 7.14% of the 28 students were very active, 25% students were active, and 67.86% students were less active. In cycle 2, there was a decrease in the percentage of students who were less active in the teaching and learning process after Cuisenaire rods were introduced into vocabulary lessons. Only 10.71% of the 28 students were rated as less active, while 71.45% were active and 17.86% were very active.

The use of Cuisenaire rods also led to increased student achievement in learning vocabulary. This, too, is evident in the result data from each research cycle. In cycle 1, only 7.14% of the 28 students obtained or exceeded the minimum Mastery Criteria Score for the English subject at SMPN 1 Kauman Ponorogo with scores of 75 or higher. The rest of the students, about 92.85%, failed. In cycle 2, 75% of the 28 students obtained or exceeded the minumum Mastery Criteria, while 25% failed.

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RATIFICATION

This is to certify that sarjana's thesis of:

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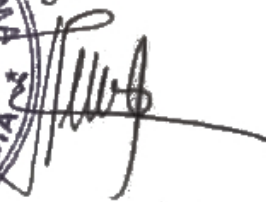Title : Increasing Students' Vocabulary Mastery by Using Cuisenaire Rods at SMPN 1 Kauman Ponorogo

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CHAPTER I

INTRODUCTION

A. Background of the Study

Vocabulary is a medium for communication that is needed for using words to form sentences. Vocabulary is a key in language, and also a kind of bartering tool: it is used to share ideas in communication. Have a better vocabulary makes it easier for one to share ideas in conversation. Vocabulary is also an essential skill for learning to read, speak, write and listen. Without sufficient vocabulary, people cannot communicate or express their feelings effectively through speech or through writing.

Vocabulary knowledge is often viewed as a critical tool for second language learners because a limited vocabulary in a second language impedes successful communication. Wilkins wrote that, "…while without grammar very little can be conveyed, without vocabulary nothing can be conveyed"[1]. Vocabulary plays a vital role in teaching languages and is a crucial part of all four basic language skills: listening, speaking, reading, and writing.

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[1]D. Wilkins,.*Linguistics in Language Teaching.* (London: Arnold, 1972). 111-112.

Researchers Nagy and Anderson and Biemiller use different descriptive terms for what is counted as a distinct word.[2] Nagiy and Anderson use a corpus of words gathered from school material and textbooks. They estimate that there are about 88,500 distinct word families in printed schools English, and that an average twelfth grader probably knows about 40,000 of them.[3] Those below the twelfth grade are likely to know less than 40,000.

While Nagy and Anderson count occurrences of word families, Biemiller counts occurrences of root words. According to Biemiller, in Dale and O'Rourke's *The Living Word Vocabulary* there are about 17,500 root words known by student in grade 12. Of these root words, they estimate that about 15,000 words are known well by a majority of students.[4]

In his research titled *Vocabulary: needed if more children are to read well,* Biemiller also wrote that an average child has acquired about 9,000 root words by the end of his or her elementary years. This reflects acquiring about 2.2 words per day from age 1 through age 8 (i.e. the end of grade two) and 2.4 words per day from ages 9 through 12. In other words, an average child learns between 800 and 900 root words a year.[5]

Johnson discusses the results of a popular online vocabulary survey at testyourvocab.com. The results of this survey, based on more than two million

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[2] Linda Diamond, et al, *Vocabulary Handbook,* (California: CORE, 2006), 6.
[3] *Ibid.*
[4] Linda Diamond, et al, *Vocabulary......*
[5] Andrew Biemiller. *Vocabulary: needed if more children are to read well, Reading Psychology* (Canada: University of Toronto, 20011), 326-327.

responses, give estimates of average vocabulary size for different categories of test-taker. The data from this online survey is imperfect, but it provides another potential standard against which researchers might measure students' knowledge of vocabulary. According to the data collected by the survey, most adult native test-takers range from 20,000 – 35,000 words. Average native test-takers of age 8 already know 10,000 words, while average native test-takers of age 4 already know 5,000 words. Adult native test-takers learn almost 1 new word a day until middle age, at which point their vocabulary growth basically stops. The most common vocabulary size for foreign test-takers is 4,500 words. Foreign test-takers tend to reach over 10,000 words by living abroad, and they learn about 2.5 new words a day while living in an English-speaking country.[6]

Based on the information above, the researcher can estimate that standard vocabulary sizes are 88,500 distinct word families in printed school, 40,000 word families known by grade 12, 17,500 root word meanings in *The Living Word Vocabulary* (grade 12), 15,000 root word meanings known well by grade 12, during age 9 until 12, an average child learns between 800 and 900 root words a year and 4,500 words for a highly motivated foreign learner of English.

According to *Konferensi Pers UN 2017 jenjang SMP* from *Kementerian Pendidikan dan Kebudayan,* National Exam scores have decreased since 2016. In 2016, the trend score of English subject from UNBK is 65.96 w and for UNKP is

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[6]http://www.economist.com/blogs/johnson/2013/05/vocabulary-size. Retrieved on April 24rd, 2017.

56.83. Then, in the 2017, the English trend score for national exam from UNBK is 49.08 and for UNKP is 50.71. 11,407 schools with 1,339,469 participants took part in the UNBK final exam, while 43,724 schools with 2,817,566 participants took part in the UNKP[7]. However, many students of English in Indonesia, and particularly in East Java, are far below this standard. English scores were lower than scores in other subject tested by the National Exams. Students' low vocabulary levels contributed to these results, as did a failure to implement the aims of the national curriculum. According to *Kementerian Pendidikan dan Kebudayan*, the curriculum demand for English is ability in functional language, and use of the language based on context[8]. The difficulties that many students have with vocabulary show that this has not been achieved. It is reasonable to assume that the average vocabulary size of a high school student in Ponorogo is less than elsewhere. Teaching and learning EFL vocabulary in Ponorogo involves more struggles and difficulty. Teachers must work harder to help their students, and students must put more effort into learning in order to increase their achievements.

Teaching English as a foreign language is not simple. Teachers and learners alike face many difficulties, especially when it comes to teaching vocabulary, which is crucial in order to help students become effective users of English.

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[7]*Konferensi Pers UN 2017 jenjang SMP* from *Kementerian Pendidikan dan Kebudayan.*
[8]*Ibid.*

In their *Analysis on the Impediments to English Vocabulary Learning and Teaching*[9], Fahime Narjami and Nader Assad A. have that language learners look for effective ways to increase opportunities for retaining new words in long-term memory, but forgetting is a common problem. Language learners often complain that they forget new words soon. The importance of vocabulary learning also poses some challenges for teachers. They like to know in what ways instructional programs might foster the acquisition of so many words. Students face some barriers when they try to assign the vocabularies to their long term memories. The same problem is faced by the language learners in Ponorogo, and especially by high school students[10].

Rohmatillah in *A Study on Students' Difficulties in Learning Vocabulary* found that almost all students had difficulties in pronouncing words, writing, and spelling. Different grammatical forms of words, known as inflections, were one specific cause of students' difficulties in learning vocabulary. In addition, students found difficulties in knowing words' definitions and using them appropriately based on context. Students were also confused when they encountered words or expression that were idiomatic.[11]

Through short interviews with some English teachers and junior high school students in Ponorogo, the researcher found that they face many of the same

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[9] Fahime Narjami, et al., *Analysis on the Impediments to English Vocabulary Learning and Teaching,* (Iran: slamic Azad University, 2013), 1.

[10] Preliminary research, April 28th, 2017, in Ponorogo.

[11] Rohnmatillah in her research about *A Study on Students' Difficulties in Learning Vocabulary,* (Lampung: IAIN Raden Intan Lampung), 84.

difficulties[12]. Through discussions and interviews with English teachers and students at SMPN 1 Kauman Ponorogo during both the 2016/2017 and 2017/2018 academic years, the researcher learned that the students at this school do not feel confident enough to speak or write in English. They are anxious and afraid of making mistakes.[13] The students do not have high enough levels of vocabulary and struggle with grammatical rules. Increasing their vocabulary is difficult because the students have not found methods which work for them in the classroom and when studying at home.[14]

Some students feel that they have problems memorizing, pronouncing, and using new English vocabulary. The interviewed teacher had already tried different approaches to teach English and increase their English vocabulary, including games to introduce fun ways to learn words. The teacher believed that the students had insufficient vocabularies because they did not practice often enough with new words. The students learn words, write them, and never use them again. The students do not use the new words in conversation, so they often do not know how to use them in context. If students forget how a word was used or pronounced, they are often too afraid of being wrong to try and use it themselves.[15]

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[12] Preliminary research, April 28th, 2017, in Ponorogo.

[13] Rebecca Ruth Thacker, preliminary research, January 18th, 2017, in Kauman, Ponorogo.

[14] Rebecca Ruth Thacker, preliminary research, December 20th, 2017, Ponorogo.

[15] Class 8A srudents in the 2017/2018 academic year, preliminary research, December 26th, 2017, Ponorogo.

In line with these facts, the researcher believes that students can benefit from engaging vocabulary activities that can help them overcome their passiveness in the classroom. These activitities should help them memorize, maintain, and understand the vocabulary that they have learned. To solve the problem, the teacher should use good methods and techniques to increase students' achievements, especially in learning vocabulary. There are many methods that can be used for teaching vocabulary related to various subjects.

When teaching vocabulary, it is very important to make the students become interested in learning the material. Diamond and Gutlohn state that if we can get students interested in playing with words and language, then we are at least halfway to the goal of creating the sort of word-conscious students who will make words a lifetime interest. This means that it is very important for the teacher to make the students eager to learn new vocabulary by using enjoyable teaching techniques.

The Silent Way is a language teaching method created by Caleb Gattegno that makes extensive use of silence as a teaching method[16]. Gattegno introduced the method in his 1963 book, *Teaching Foreign Languages in Schools: The Silent Way.* The Silent Way is a methodology of teaching language based in the idea that teachers should be as silent as possible during a class, but learners should be encouraged to practice or be active as much as possible. The Silent Way makes it

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[16] Caleb Gattegno, *The Silent Way : Teaching Foreign Language in Schools*, (New York: Educational Solutions Worldwide Inc., 1963-2010), 27.

easy for students of foreign languages to master vocabulary at a very early stage in their studies. This can be accomplished while playing games or using other types of media. The use of the media in the teaching and learning process can improve either students' eagerness in learning or student's ability in any expected skills they want to extend.

Every method of teaching English uses media to optimize its application. In the Silent Way Method, the media supports students in learning English by using sound-color charts, teacher's silence, peer correction, word charts, and Cuisenaire rods. One of the hallmarks of the Silent Way is the use of Cuisenaire rods, which can be used for anything from introducing simple commands to representing objects. These rods are a form of language learning media that have meaningful advantages. The first advantage is that Cuisenaire rods encourage learners to use their visual senses to interact with them. Rods of different colors and lengths appeal to these visual senses and obtain learners' interest almost automatically, because they required them to learn by doing. In addition to appealing to students' visual senses, the rods can make the students become quieter and more focused because they required them to concentrate and focus their attention.[17]

The Silent Way Method using Cuisenaire rods has been applied to resolve the problem of learning language or teaching vocabulary. It is used, for example, to teach American Peace Corps volunteers being trained to teach in Thailand.

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[17] Jim Scrivener, *Learning Teaching*: *A Guide Book for English Language Teacher* (United Kingdom: Macmillan, 2005), 312-316.

Syifa' Khuriyatuz Zahro conducted research on improving the speaking abilities of Indonesian high school students by retelling stories using Cuisenaire rods. Research on Cuisenaire rods has also been conducted by Akarcay. A study entitled "Cuisenaire Rods: Pedagogical and Relational Instruments for Language Learning" investigated the use of Cuisenaire rods as an instrument in language teaching. The research concludes that Cuisenaire rods are potential learning tools that may help students to develop their skills through activities such as "Playing with Time" and "Thirty-Four Linking Phrases."[18]

Considering the background above, the author is interested in conducting further research under the title *Increasing Students' Vocabulary Mastery by Using Cuisenaire Rods at SMPN 1 Kauman Ponorogo*. She is willing to implement the Silent Way Method to teach English, focusing particularly on vocabulary mastery. She predicts that such a method will serve as an effective and engaging activity that will cultivate and enhance students' speaking proficiencies. Using the Silent Way Method with Cuisenaire rods can be the right stimulus to both increase student interest in vocabulary and improve speaking skills.

B. **Identification and Limitation of the Problem**

   1. **Identification**

      Drawing from discussions with an English teacher at SMPN 1 Kauman Ponorogo and interviews with eighth grade students at that

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[18] Sevilay Akarcay, *Cuisenaire Rods: Pedagogical and Relational Instruments for Language Learning* (Vermont, USA: Published Thesis of the SIT Graduate Institute, 2012), 70 .

school, the preceding background discussion explained some of the challenges related to English learning at SMPN 1 Kauman. They include the following:

a. Students have self-confidence issues when using English.

b. Students are anxious and afraid of making mistakes.

c. Students have low levels of vocabulary.

d. Students have difficulty memorizing new vocabulary.

e. Students have not yet found the best way to increase new vocabulary.

f. Students do not have enough practice using English.

2. Limitation

Based on the identification of problems above, the researcher limits the problem as follows:

This research will be focused on knowing whether the use of Cuisenaire rods as a tool of the Silent Way Method can increase students' vocabulary mastery and improve students' activeness. The writer limits the research to using Cuisenaire rods as a tool for teaching vocabulary using the Silent Way Method.

This research will be conducted in class 8A at SMPN 1 Kauman Ponorogo, with 28 students in the 2017/2018 academic year. Media will be used to teach English and the author will focus on teaching nouns, adjectives, and prepositions.

C. Statement of the Problem

Based on the background of the study presented earlier, the researcher will try to answer following question: How can Cuisenaire rods increase the vocabulary size of eighth grade students at SMPN 1 Kauman Ponorogo in the 2017/2018 academic year?

D. Objective of the Study

Based on the statement of the problem, the objective of this study is to describe the use of Cuisenaire Rods in increasing 8th grade students' vocabulary mastery at SMP N 1 Kauman, Ponorogo in the 2017-2018 academic year.

E. Significance of the Study

The results of this study will be a useful addition to scientific resources available in the field of education and a reference for researchers who want to investigate the process of teaching and learning the English language. The study can also inform educators about using the Silent Way and Cuisenaire rods as a method for teaching English, and particularly for improving their students' vocabulary. For students, it is hoped that this study can provide motivation to learn English and increase English vocabulary, highlight the importance of not being anxious or afraid of making mistakes, and provide encouragement to become more active in the learning process.

F. Organization of the Thesis

Chapter I is the Introduction. This chapter describes the background of the study, identifies and limits the problem, provides a statement of the problem, states the objective of the study, and explains the significance of the study and the organization of the thesis.

Chapter II discusses Previous Research Findings, the Theoretical Background of the study, the Theoretical Framework, and the researcher's Hypothesis.

Chapter III describes the Research Method. This chapter explains the object of classroom action research, setting and research subject characteristics, research variables, classroom action research procedures, and the research schedule.

Chapter IV is Findings. This chapter explains the research setting, cycles of explanation, and data analysis and discussion.

Chapter V is the Closing. This chapter consists of the conclusion and suggestions.

CHAPTER II

PREVIOUS RESEARCH FINDINGS, THEORETICAL BACKGROUND, THEORETICAL FRAMEWORK AND HYPOTHESIS

A. Previous Research Findings

As the foundation of the research, this part of the thesis presents a review of related literature that is considered necessary to gain the knowledge of related theories from many sources. This chapter discusses several theories and findings related to them. These previous research findings pertain to the Silent Way method, Cuisenaire rods, and teaching English.

The first study that the author investigated was a thesis entitled "*Improving the Students' Speaking Ability trough Silent Way Method Teaching for the 8th Graders at SMPN 2 Surabaya*". The author, Iftakhul Bariroh, is a graduate of the English Department in the Faculty of Education and Teacher Training at UIN Sunan Ampel, Surabaya. This researcher concludes that the Silent Way Method is more effective in improving students' speaking ability compared to conventional teaching. The data show that there is a significant difference in mean scores between students who are taught English speaking using the Silent Way and those who are not taught

using the Silent Way. The Silent Way Method is a good strategy for making learning attractive and enjoyable, especially when speaking is being taught.[1]

The second piece of research investigated was Jordan Cael's "*Teaching Pronunciation as a Core Skill Using the Silent Way Approach*". Cael says that these materials were developed as part of an exploration of how to interweave the study of pronunciation together with the study of the meaning and structure of the language in a way that makes pronunciation practice a central, present, and prominent part of every lesson. Within the framework of teaching pronunciation with the materials, techniques, and principles of the Silent Way Approach, the focus was placed on creating activities that would (1) help students to ***notice and practice*** the essential pronunciation elements of the language, known in the Silent Way as the 'melody' (i.e., intonation, stress, phrasing, rhythm, etc.), (2) to accurately produce individual sounds on a word level, and (3) to develop an inner criteria for what is intelligible.[2]

The third piece research was *Cuisenaire Rods: Pedagogical and Relational Instruments for Language Learning* by Sevilay Akarcay. He states that the "exploration of language learning facilitated with the utilization of Cuisenaire rods in collaboration with my students has changed my teaching in

[1]Iftakhul Bariroh, *Improving the Students' Speaking Ability trough Silent Way Method Teaching for the 8th Graders at SMPN 2 Surabaya*. (Surabaya:UIN Sunan Ampel, 2014).

[2] Jordan Cael, *Teaching Pronunciation as a Core Skill Using the Silent Way Approach*. (Vermont: DigitalCollection@SIT, 2010).

terms of how I facilitate my students' learning. I have found them to be beneficial tools for supporting my students' learning processes. They have proven to be versatile instruments that integrate sight and touch with the elements of play in order to know, look, notice, think, listen, speak, read, and write in a new language from where a purpose is drawn. There are of course many other ways of looking into learning a language with rods in order to explore the workings of knowing, looking, noticing, thinking, listening, speaking, reading, and writing so as to understand the universe of oneself as a learner. I have come to the conclusion that Cuisenaire rods are tools in which there is the potential to utilize them so that learning is a personal discovery of one's own which may help learners to evolve into autonomous learners."[3]

The fourth study is a thesis by Syifa' Khuriyatuz Zahro, entitled *"Cuisenaire Rods as a Media to Improve Students' Speaking Skill in Retelling Story (An Experimental Study at SMA Bina Bangsa Surabaya)"* This research shows that Cuisenaire rods can improve students' speaking abilitites, especially as they pertain to retelling stories. This result was derived from the statistical calculation of t-test results that t-value (5.03 was bigger that t-table at 0.05 (2.16)) level of significance of t-test, (where 5.03 > than 2.16). It means that the alternative hypothesis (H_a) of this research was accepted. Thus, there was a significant difference between the improvement in students'

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[3]Sevilay Akarcay, *Cuisenaire Rods: Pedagogical and Relational Instruments for Language Learning* (Vermont: DigitalCollection@SIT, 2012).

speaking skills before and after retelling stories by using Cuisenaire rods. The result of this research also supported Scrivener's theory about the use of Cuisenaire Rods in language teaching as the theoretical framework of this research. The result of this research can also support Brown's theory about the use of media which can give positive enhancement consuming.[4]

The next research finding is from Andrew Biemiller, entitled *"The Influence of Vocabulary in Reading Acquisition*[5]. He stated in the last part of his paper that vocabulary development is a key factor in successful reading development. Children with below-average vocabularies are at-risk of low school achievement. In the future, one research priority may be identifying the methods for fostering vocabulary development and the influence that vocabulary growth has on other aspects of literacy.

B. Theoretical Background

1. Teaching Vocabulary

a. The Nature of Vocabulary

Learning a new language cannot be separated from vocabulary. This means that in order to learn a new language

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[4] Syifa' Khuriyatuz Zahro, *Cuisenaire Rods as a Media to Improve Students' Speaking Skill in Retelling Story (An Experimental Study at SMA Bina Bangsa Surabaya.* (Surabaya: UIN Sunan Ampel, 2013).

[5] Andre Biemiller, *The Influence of Vocabulary on Reading Acquisition.*(Canada: Canadian Language and literacy center, 2007).

successfully, people must study its vocabulary. Vocabulary can be defined in various ways. Experts have proposed some terms about vocabulary.

According to Richards and Renandya, vocabulary is a core component of language proficiency and provides much of the basis for how learners speak, listen, read and write. Without an extensive vocabulary and strategies for acquiring new vocabulary, learners often achieve their potential and may be discouraged from making use of language learning opportunities around then such as listening to the radio, listening to native speakers, using language in different contexts, reading or watching television.[6]

Vocabulary is important across the curriculum from language arts and social studies to mathematics and science. If you have studied a foreign language, you may recall how basic your early sentences were and how limited they were in texture and depth. With enhanced vocabulary, students grow in skills of verbal fluency, writing, and comprehension. The National Reading Panel states that the larger the students' vocabulary, the more adept they are at understanding text. When students build vocabulary mastery,

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[6] Richard, et al, *Methodology in Language Teaching,* (New York: Cambridge University Press, 2002), 255.

they can more effectively communicate their ideas, knowledge, and voice.[7]

According to Anglin, vocabulary knowledge provides the essential building blocks of language, and without vocabulary, neither language production nor language comprehension is possible.[8] According to this statement vocabulary has an important place in language, even more so than grammar. Gattegno writes in his book that language still remains sets of words which are used to make sentences according to certain rules described in grammars. Words are classified as nouns, verbs, pronouns, adverbs, adjectives, etc., in all languages. It is conceivable that a selection of the patterns of phrases and sentences can be presented to learners, who memorize them and the find, in a vocabulary list, the words that could replace certain others, while leaving the pattern untouched. One would in a way, be "learning" the language by practicing its patterns with its vocabulary.[9]

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[7] Judi Willis, *Teaching the Brain to READ: Strategies for Improving Fluency, Vocabulary and Comprehension,* (Virginia : ASCD Alexandria, 2008), 80.

[8] J. M. Angling, *Vocabulary development: a Morphological analysis. Monograph of the Society for Research in Child development.* (Cambridge: Cambridge University Press. 1993), 2.

[9] Caleb Gattegno, *The Silent Way: Teaching Foreign Languages in Schools,* (New York: Educational Solutions Worldwide Ins, 2010), 110.

Vocabulary, broadly defined, is knowledge about words and word meanings[10]. There are various types or forms of vocabulary. Words themselves are encountered in two forms: oral and print.[11] Oral vocabulary is for listening and speaking, so those are the words we understand when others speak or read to us and words we use when we talk to others. Print vocabulary is for reading and writing, meaning words we understand when we read them and the words we use when we write. In emergent readers, oral vocabulary is much larger than print vocabulary.[12] Kamil and Hiebert state that individuals have various types of vocabulary that they use for different purposes. As students become more literate, print vocabulary plays an increasingly larger role.[13]

Vocabulary learning is very important for people who learn English both as a foreign language and as a second language. Tozcu and Coady point out that learning vocabulary is an important aspect of language two and foreign language acquisition and academic achievement and is vital to reading comprehension and proficiency, to which it is closely linked.[14]

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[10] Taffy E. Raphael, *Vocabulary Teaching and Learning,* (Wright Group), 2.

[11] Linda Diamond, et al, *Vocabulary Handbook,* (California: CORE, 2006), 4.

[12]*Ibid.*

[13] Elfrieda H. Hiebiert et al, *Teaching and learning vocabulary; Perspectives and persistent issues* (New Jersey: Erlbaum, 2005), 3.

[14]Tozcu, A and J. Coady. 2004. *Succesful Learning of Frequent Vocabulary through CALL also Benefits Reading Comprehension and Speed*. Retrieved from http://www.tandfonline.com. 473.

Considering the nature of vocabulary as described above, its importance is clear. This applies to productive vocabulary as well as receptive vocabulary. Learners should also understand how to use vocabulary in context: they must be able to grasp the concept behind the word, not just remembering its meaning in their mother language. Even if the word is the same, the meaning can be different depending on the context in the sentence or the phrase.

b. Teaching Vocabulary

Words represent complex, and often multiple meanings. In order to understand words, learners must be able to understand these complex and multiple meanings. Students must be able to learn words by context in addition to simply learning their meanings in their mother tongues. This means that teachers are challenged to find ways to teach ESL effectively. The author of *Teaching and Learning Vocabulary* said that:

"Vocabulary tasks should be restructured as necessary. It is important to be certain that students fully understand what is asked of them in the context of reading, rather than focusing

only on the words to be learned. Restructuring seems to be most effective for low-achieving or at-risk students."[15]

Four issues are particularly persistent in discussions among vocabulary instruction, as evident in the chapters in this volume[16]:

1) the number of words that should be taught,

2) the particular words that should be taught,

3) the vocabulary learning of two groups of students—English-Language Learners and potentially at-risk students, and

4) the role of independent reading in vocabulary learning.

Vocabulary learning is effective when it entails active engagement in learning tasks. Learning vocabulary can involve using media or technologies that allow students to interact with language orally, pictorially, and in writing. The National Reading Panel (2000) concluded that there is no single research-based method for teaching vocabulary. From its analysis, the panel recommended using a variety of direct and indirect methods of vocabulary[17].

Components of vocabulary instruction include[18]:

1) Intentional Vocabulary Teaching

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[15] Elfrieda H. Hiebiert et al, *Teaching and learning vocabulary; Bringing Research to Practice* (New Jersey: Erlbaum, 2005), 7.

[16] Elfrieda H. Hiebiert et al, *Teaching and learning vocabulary; Bringing* ....10-11.

[17] Linda Diamond, et al, *Vocabulary Handbook,* (California: CORE, 2006), 11.

[18]*Ibid.*

2) Fostering Word Consciousness

3) Multiple Exposures in Multiple Contexts

4) Restructuring of Vocabulary Tasks

5) Incidental Vocabulary Learning

6) Instruction for English-Language Learners (ELLs).

One of the main goals of vocabulary instruction, therefore, is to help students improve their comprehension. This choice of goals is important because of its implications for both the content and the methods of instruction.

Effective vocabulary instruction is a long-term proposition[19]. Attention to vocabulary growth has to start early, in preschool, and continue throughout the school years. Although the exact nature of effective instruction changes across grade levels, the focus on and commitment to vocabulary instruction is a sustaining component of schooling. Effective instruction must also be multifaceted, encompassing: teaching individual words; extensive exposure to rich language, both oral and written; and building generative word knowledge.

The conclusion is that teaching vocabulary should use effective methods that are long-term propositions. The teachers

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[19] Elfrieda H. Hiebiert et al, *Teaching and learning vocabulary; Bringing *28

should find the best instruction and method to teach vocabulary according to their and their students' goals.

c. **Vocabulary Assessment**

Receptive vocabulary refers to words students understand when they read or hear them. Productive vocabulary, on the other hand, refers to the words students can use correctly when talking or writing. Vocabulary assessment can be used to inform instruction and to measure vocabulary growth.

Word knowledge is a matter of degree and can grow over time. Incremental knowledge of a word occurs with multiple exposures in meaningful context.

"For each exposure, the child learns a little bit about the word, until the child develops a full and flexible knowledge about the word's meaning. This will include definitional aspects, such as the category to which it belongs and how differs from other members of the category… it will also contain information about the various context in which the word was found, and how the meaning differed in the different context".[20]

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[20] S. A. Stahl., & K. A. D. Stahl, *Word Wizards all! Teaching word Meanings in Preschool and Primary Education.*, p. 63, in J.F. Baumann & E.J. Kame'enui (Eds), *Vocabulary Instruction: Research to Practice,* (New York: Guilford, 2004), 59.

Often vocabulary is assessed at the end of a unit using a multiple-choice task, a fill-in-blank task or matching task. These modes of vocabulary assessments are shallow metrics of possible word knowledge. Typically, embedded measures require the student to apply the word appropriately for the embedded context. Test designers for the 2009 NAEP were deliberate in selecting polysemous items and constructing distracters that reflect alternative meanings for each assessed word.[21]

Three Classroom Assessments are:

1) Vocabulary Knowledge Scale. The Vocabulary Knowledge Scale (VKS) is a self-report assessment that is consistent with Dale's incremental stages of word learning.

2) Vocabulary Recognition Task. The Vocabulary Recognition Task (VRT) like the VKS, it combines self-report with demonstrated knowledge.

3) Vocabulary Assessment Magazine. The Vocabulary Assessment Magazine (VAM) was originally created to measure students' science knowledge, comprehension strategy use, and reading

comprehension of science texts. Incidentally, as the analysis of the finding from this measure.

In this case, the research will use a Vocabulary Knowledge Scale. This is because this study will focus on students' understanding of vocabulary, not merely their ability to memorize it. The focus is on junior high school students, so it is important to choose the best assessment for their needs. The Vocabulary Knowledge Scale (VKS) is not designed to tap sophisticated knowledge or lexical nuances of a word in multiple contexts.[22] It combines students' self-reported knowledge of a word in combination with a constructed response demonstrating knowledge of each target word. The VKS format and scoring guide fall into the following five categories[23]:

1.) I do not remember having seen this word before. (1 point)

2.) I have seen this word before, but I do not think I know what it means. (2 points)

3.) I have seen this word before, and I thinks it means _____. (Synonym or translation; 3 points)

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[22] Katherine A. D. Stahl, & Marco A. Bravo, *Contemporary Classroom Vocabulary....*
[23] *Ibid,* 570-572.

4.) I know this word. It means _____. (Synonym or translation; 4 points)

5.) I can use this word in a sentence:_____. (if you do this section, please also do category 4;5 points)

Any incorrect response in category 3 yields a score of 2 points for the total item even if the students attempted category 4 and category 5 unsuccessfully. If the sentence in category 5 demonstrates the correct meaning but the word is not used appropriately in the sentence context, a score of 3 is given. A score of 4 is given if the wrong grammatical form of the target word is used in the correct context. A score of 5 reflects semantically and grammatically correct use of the target word.

2. Cuisenaire Rods

a. Media in Teaching and Learning

In teaching and learning, use of media is very important. Teachers must be creative to create ways to keep students engaged. Choosing the best media for teaching material to the students is a key part of this. By using media, teachers can create enjoyable learning situations. The goals of media use are to make students participate more actively in the teaching and learning process and to help them remember the material more effectively.

Media are tools of study that consist of instructional material in student activities or classroom teaching that facilitate the learning process. Media as explained by Gerlach and Elly are persons, materials, or events that establish conditions of the students to acquire knowledge, skill and attitudes.[24] Put briefly, media are ways to facilitate the learning process and the fulfillment of teaching goals,

In addition to being tools, media are a kind of teaching support or learning motivator. As Murcia said, media can be important motivators in the language teaching processes.[25] According to Syifa, Brown stated that using various media creatively can enhance students to be more learnt, keep better, and improve their ability in any expected skills they want to extend.[26] So, it can be summarized that media makes the process of understanding material easier and more engaging for students.

Teachers need to use instructional media to achieve their objectives. Media are called instructional media when they convey a message related to instructional objectives, such as facilitating communication.[27] A teacher must develop her ability to use media in

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[24] Vernon S Gerlach - Donald P Ely, *Teaching and Media: A Systematic Approach. Second Edition* (New Jersey: Prentice Hall, 1980)

[25] Marianne Celce Murcia, *Teaching English as ASecond or Foreign Language* (London: Thomson Learning, 2001), 461 .

[26]Syifa' Khuriyatuz Zahro, *Cuisenaire Rods as a Media to Improve Students' Speaking...* 19.

[27] Robert Heinich, et. al., *Instructional Media and the New Technologies of Instruction* (Canada: John Willy and Sons, Inc, 1993)

order to understand how to incorporate media into lessons appropriately and effectively.

In general, there are three kinds of media to utilize in classrooms, as explained by Kasbolah. These include visual media, audio media, and audio-visual media.[28] Visual media are the media that can be seen and touched by the students. Such media include blackboard, textbook, real object, picture, file, chart, flashcard, word card, number card, flannel or felt board, magnetic board, opaque, projector and overhead projector and transparency and filmstrips.[29] Audio media are media that can only be listened to. Audio-visual media represent a combination of both of the preceding kinds; meaning that they can be both seen and listened to, as is the case with VCDs, DVDs, TV and video.

Of these three groups of media, visual media are best suited to solving the problem and easiest for teachers to develop. Thus, in this case, the researcher uses a media which can be seen and touched to teach speaking. This will help get students' interest and attention so that they can participate actively.

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[28]Syifa' Khuriyatuz Zahro, *Cuisenaire Rods as a Media to Improve Students' Speaking...* 20.
[29] Mary Finocchiaro, *Visual Aids in Teaching English as a second Language.* Vol. XII. (English Teaching Forum. 1973), 155-185

b. **The Silent Way Method**

The Silent Way is the name of a method of language teaching devised by Caleb Gattegno. Gattegno's name is well known for his revival of interest in the use of colored wooden sticks called Cuisenaire rods and for his series Words in Color, an approach to the teaching of initial reading in which sounds are coded by specific colors.[30] His materials are copyrighted and marketed through an organization he operates called Educational Solutions Inc., in New York. The Silent Way represents Gattegno's venture into the field of foreign language teaching. It is based on the premise that the teacher should be silent as much as possible in the classroom and the learner should be encouraged to produce as much language as possible. Elements of the Silent Way, particularly the use of color charts and the colored Cuisenaire rods, grew out of Gattegno's previous experience as an educational designer of reading and mathematics programs.[31]

Three basics principles of the silent way method are that the learner needs to discover or create, that learning is made easier by the use of physical objects such as Cuisenaire rods, and that learning is made easier by problem-solving using the target language. One of the most important Silent Way principles is that teaching should be

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[30]Richards, J.C. y T.S. Rodgers *The Silent Way. En Approaches and Methods in Language Teaching*, (Reino Unido: Cambridge University Press, 1987), 120.
[31]*Ibid.*

subordinated to learning. In a brief summary of the basic principles of the Silent Way, Earl Stevick writes that the purpose of the educator is to help the learner to develop and strengthen his own inner resources. Learning requires the mobilization of the learner's internal resources; it is not the "passive transmission of information from and by a teacher to a passive learner".[32]

Teaching does not automatically result in a learning outcome. Therefore, there is no cause and effect relationship. However, the teacher can facilitate the learning process in the following ways[33]:

1) setting up a classroom climate where students can learn for themselves,

2) presenting the language in the form of an accessible challenge and then watching and listening to what students do with it, and

3) Using the information gained from alertly observing the students at work and from listening to their feedback to decide whether to increase or decrease the level of the next language learning challenge.

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[32] Earl Stevick, *Working with Teaching Methods: What's At Stake*. Boston, (MA: Heinle, 1998), 123.

[33]*Ibid.*

While the students are learning the language, the teacher is learning how each student learns. In this way, the teaching is guided by learning rather than the other way around.

c. **Cuisenaire Rods**

The philosophy of the Silent Way comes alive through its techniques and materials. Some of the most fascinating materials used in the Silent Way are the Cuisenaire rods: small pieces of blocks (usually made of wood) of varying lengths from 1 to 10 cm with a 1cm2 cross section. Each length is a different color. These rods are flexible and versatile tools utilized by the language learner. They can easily represent many different situations, which the students themselves produce or interpret models, prepared by other learners or the teacher.[34]

Cuisenaire rods were created by Georges Cuisenaire in the early 1950s, a Belgian primary school teacher. His knowledge as a musician helped him develop the idea of using colors for numbers. One can presume that he may have been influenced by the 'neurological phenomenon' of Synesthesia, 'where sensory modes blend'. Georges Cuisenaire used these colored rods of varying lengths to primarily help

[34]Sevilay Akarcay, *Cuisenaire Rods: Pedagogical and Relational Instruments for Language Learning* (Vermont: DigitalCollection@SIT, 2012),16.

children understand arithmetic. By blending touch and sight, colors could create shapes or become numbers, and numbers, in turn, could become colors. This amicable interconnection of the senses acts as a tool that enhances learning and memory. As a result, learners were 'more plugged-in to their environment' because they were seeing and understanding concepts through color combinations and connections (The Synesthetic Brain: To be a Synesthete section, Para. 1).[35] Cuisenaire rods are good media to stimulate students' achievement and to increase their creativity. This media matches to use in memorizing new vocabulary because it will put the memory in the long-term memory.

There some advantages to using the rods in language teaching. As Jim Scrivener stated, teachers can uses the rods in context. The contextualizing elements are varied either from material used or competence focused. The glance of the advantages using Cuisenaire rods can be described as follows:

1) To elicit students (e.g. for grammar work) by restricting the lexis

2) To clarify precise meaning of two similar words, synonym or antonym

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[35]Sevilay Akarcay, *Cuisenaire Rods: Pedagogical and Relatio...*

3) To ask a range of concept questions

4) To clarify structure of syllables or sentences up into words

5) To clarify word stress or wrong word order.

6) To create "magic" of the object becomes alive, when they are representing others

7) To be an unambiguous, tangible, visible point of reference

8) To make the students to be quieter and more focused rather than noisy because they required more concentrate on and narrowing attention[36]

From those advantages, it clearly shows that Cuisenaire rods will create many important effects which will be of benefit to language teaching and learning.

3. **Procedure of Usage**

a. **Silent Way**

There are various ways to implement the Silent Way Method in classrooms. Based on the The Silent Way; Teaching Foreign Languages in schools, educators can take different approaches to this method.[37] The writer will take general steps based on *The Silent Way: Teaching Foreign Languages in Schools*[38], explained below:

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[36] Jim Scrivener, *Learning Teaching. A*........., 312-316 .
[37] Caleb Gattegno, *The Silent Way : Teaching* ......119.
[38] Caleb Gattegno, *The Silent Way : Teaching* 119-125

1) Planning session: at the planning session, it was only agreed that we must avoid being repetitive.

2) Find the tools for the teacher's trade, which seem to be the charts, colored rods, etc.

3) Notice who is involved in the teaching and learning process.

4) Everything and everybody serves one aim, to make everyone into the most competent learner.

5) The linguistic muscle is becoming stronger through exercises. This permits the attack of larger tasks which serve as further exercises. That will extend one's capacity to attack still larger tasks.

6) By retracing the extent of the language to be presented and to be worked on, the teacher provides the greatest chances of using perception, intelligence and any valid clues to reach a level of functioning in the new language comparable to the one used in one's own language. Generally, teacher must provide freedom for the students to express what seems right to them in a given context.

7) The mistakes that are made by learner can be help in the study of the linguistic functioning of man.

8) To correct ourselves we need criteria and these are perhaps at work during the sleeping state as much as during the waking state, some more effectively in one than in the other.

b. Cuisenaire Rods

There are various ways to implement Cuisenaire rods, depending on what they are being used for. According to Sevilay Akarcay[39], the steps of using Cuisenaire rods are as follows:

1) First Activity

In this activity, the teacher starts by preparing the lesson plan. Then the teacher shares the material and continues to stimulate the students related to the topic. The teacher shows real media to the students (e.g. learning about time, which can involve using a clock or watch, etc). After that, put down the real media and open the box of rods. Pick up the color that is representing the word (example, blue rod to represent the hour hand and a dark green rod, which is smaller, to represent the minute hand). Divide the class into some groups. Students must be able to use the Cuisenaire rods, and ask and answer by using Cuisenaire rods.

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[39]Sevilay Akarcay, *Cuisenaire Rods: Pedagogical and Relatio...*, 25-47.

2) Second Activity

For the next activity, after grouping the words, make cards or text for every word using colored text, matching the color with the color of the rod. Ask students to analyze the differences in each color, then ask them to reflect on the placement of words.

3) Third Activity

The final step will be the step for knowing students' understanding of the usage of Cuisenaire rods. Ask the student to select a text to retell. Then ask the student to retell the text by using Cuisenaire rods.

C. Theoretical Framework

Cuisenaire Rods are the form of media used in this research as a tool of the Silent Way Method to improve students' vocabulary mastery. If this technique is applied, the students can increase their vocabulary mastery.

D. Hypothesis

The researcher hypothesizes that using Cuisenaire rods will increase the vocabulary of eighth grade students at SMPN 1 Kauman in the 2017/2018 academic year.

CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

The research method in this study is classroom action research. As a starting point, it is necessary to present a definition of action research. R.B. Burns says that action research is the application of fact finding to practical problem solving in a social situation with a view to improving the quality of action within it, involving the collaboration and cooperation of researchers, practitioners and laymen.[1]

The researcher chooses classroom action research because using this research method enables the writer to find out a solution to the teaching problem. Classroom action research encourages the researcher to be reflective in the practice in order to develop the quality of the education for the teacher as well as for the pupils.

B. Classroom Action Research Objects

The objects of the research are:

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[1] Burns, *Collaborative Action research for English Language Teacher* (United Kingdom: Cambridge University Press, 1999), 30.

1. Student activeness during the English teaching and learning process of understanding new vocabulary using Cuisenaire rods.

2. Student achievement in English lessons, especially in understanding new vocabulary.

C. Setting and Research Subject

1. Setting/location of the classroom action research

   The research is conducted at SMPN 1 Kauman Ponorogo, located at Jl. Candi no. 5 Nongkodono, Kauman, Ponorogo. SMPN 1 Kauman Ponorogo was built 1983 and has graduated more than 600 students every years. Most of them continuing their studies at SMA or SMK, and some continue to MA.

2. Subject of the classroom action research

   The subjects of this research are students in class 8A at SMPN 1 Kauman Ponorogo. The 8A students were chosen because they show interest in English and are active in English learning, but have had problems mastering vocabulary. The class consisted of 28 students, 8 of whom are male and 20 of whom are female.

D. Research Variable

This research is focused on the process of the variable and the result of the variable. The research variables are explained as follows:

1. The students' activeness in the teaching and learning process using Cuisenaire rods.

2. The students' achievement in mastering vocabulary by using Cuisenaire rods.

E. Classroom Action Research Procedure

The Classroom Action Research was engaged and developed by the teacher and the writer as the researcher. The action research here uses the model developed by Kemmis and McTaggart in Buns, who argue that action research occurs through a dynamic and complementary process, which consists of four essential 'moments': planning, action, observation and reflection.[2]

This research is divided into two cycles. The Classroom Action Research process in each cycle is explained as follows:

1. Cycle I

The process of Action Research as bellows:

a. Planning

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[2]*Ibid.,* 32.

In this step the researcher's plan focused on activities such as the following:

1) Curriculum development.

    Findings of study related to Curriculum Development (and Implementation), additional media and so on. The researcher made specific lesson plans. In cycle I, the researcher chose a narrative text with a story about a Golden Cucumber (attached).

2) Instructional strategies.

    Findings of a study related to the implementation of new instructional strategies. In this research, the teacher used Cuisenaire rods as a tool of the Silent Way Method in order to teach vocabulary mastery. A picture of the media and the teaching and learning process is attached.

3) Assessment strategies.

    Findings of a study related to the use of innovative assessment strategies. The assessment in this research uses a Vocabulary Knowledge Scale. The Vocabulary Knowledge Scale (VKS) is a self-report assessment that is consistent with Dale's incremental stages of word

learning.[3] The researcher also used the assessment in the Indonesian K13 curriculum to measure students' activeness.

4) Classroom Management Strategies / Plans.

The researcher and the teacher developed classroom management strategies / plans with specific action for teaching following the lesson plan for cycle I.

b. Action

As teachers, we have been programmed to collect, analyze, and interpret data quickly and efficiently so that we can suggest "findings" and take necessary "actions" (remediation, re-teaching, related material, extension activities) that enable learning to proceed in a connected fashion.[4] So the researcher and the teacher would be keeping on track on the implementation of the planning above.

c. Observation

Observation is the process of observing or monitoring the teaching activities, the teacher and the students carefully, in order to gain information based on the background of the study, the

[3]Katherine A. D. Stahl, & Marco A. Bravo, *Contemporary Classroom Vocabulary Assessment for Content Areas,* International Reading Association., DOI : 10.1598/RT.637.4. ISSN: 0034-0561 print/1963-2714 online, 2010, 570.

[4]Geoffrey E. Mills, *Action Research: A Guide for the Researcher* (New York: Pearson, 2018), 223.

information, findings and the planning. The researcher observed and monitored the teaching and learning process by following the guidelines of teaching and learning process observation.

In the observing phase, the writer as the observer did the following activities:

1) Observing the learning process

The observer observed the learning process using Cuisenaire rods directly in the class. The observer used documentation for data collection to gather evidence during the learning process of mastering vocabulary by using Cuisenaire rods in the classroom.

2) Observing the students' activities

The observer observed the students' activities during the learning process of mastering vocabulary by using Cuisenaire rods in the class based on observation sheets in the lesson plan.

3) Observing the class situation

The observer observed the situation during the learning process of mastering vocabulary by using Cuisenaire rods in the classroom. The observer took field note for data collection.

4) Notifying the result of assessment

The teacher determined the results of students' tests based on the lesson plan for teaching vocabulary mastery by using Cuisenaire Rods. The observer notified the results of the assessment given by the teacher.

d. Reflection

Action research required the teacher to reflect on her practice. Geoffrey wrote that this reflection is facilitated by the review of the related literature you collected early in the action research process in concert with your own findings[5]. The following questions may also be helpful prompts for reflection:

1) What were the intended and unintended effects of your actions?

2) What educational issues arise from what you have been learned about your practice?

For the researcher the following questions may also helpful prompts for reflection:

1) How is the strategies implement in the action research?

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[5] Geoffrey E. Mills, *Action Research: A Guide for the Researcher* (New York: Pearson, 2018), 224.

The question will be answered after data collction and will be explained in chapter IV. Based on the results, the researcher decided to do cycle II.

Moreover, the data from the test was analyzed by calculating the mean. The formula was[6]:

$$\mathbf{Mx} = \frac{\sum_{i=1}^{n} Xi}{n}$$

or

$$\mathbf{Mx} = \frac{\sum fx}{N}$$

Notes:

Mx   = Mean

∑   = Sum of the score

f   = Frequency

x   = Total score

N   = Number of students

It was also analyzed using a percentage method, as follows:

$$\mathbf{P} = \frac{fi}{N} \mathbf{x\ 100\%}$$

Notes :

P = Percentage

fi = Frequency of answer

N = Total number of respondents

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[6]Retno Widyaningrum, *Statistik Pendidikan* (Yogyakarta: Pustaka Felicha, 2015), 20-50.

To make score percentages easily measurable, the observer also used the following formula to find the class interval.

First, find the range with the following formula:

R = H – L

R = Range

H = Highest Score

L = Lowest Score

1 = constant number

Second, find the class amount with the following formula:

k = 1 + 3.3322 log n

Then determine the interval by using the formula below:

$$i = \frac{R}{k}$$

i = class interval   R = Range k = class amount

2. Cycle II

The process of Action Research was as follows:

a. Planning

In this step, the researcher's plan focused on activities such as the following:

1) Curriculum development. Findings of study related to Curriculum Development (and Implementation), additional

media and so on. The researcher made specific lesson plans and edited based on the results of cycle I. In this phase, the researcher identified the problems that occurred during the implementation of teaching vocabulary through Cuisenaire rods in cycle I. Through analysis, the researcher found some unexpected weaknesses. In cycle II, the researcher chose a narrative text with a story entitled "The Lion and The Mouse." (attached)

2) Instructional strategies. Findings of a study related to the implementation of new instructional strategies. In this research, the teacher used Cuisenaire rods as a tool of the Silent Way method for teaching vocabulary mastery. A picture of the media and the teaching and learning process is attached. In cycle II, the teacher stimulated the students to be more active than they were in cycle I.

3) Assessment strategy. Findings of a study related to the use of innovative assessment strategies. The assessment in this research uses a Vocabulary Knowledge Scale. The Vocabulary Knowledge Scale (VKS) is a self-report assessment that is consistent with Dale's incremental stages

of word learning[7] and the guidelines in the lesson plans for assessing students' levels of activeness. The teacher and the researcher agreed to use the same assessment strategy used in cycle I.

4) Classroom Management Plan. The researcher and the teacher developed classroom management plans with specific actions for teaching, following the lesson plan for cycle II.

b. Action

The teacher taught the students with the same method and media, but using a different text than that used in cycle I. The researcher and the teacher stayed on track implementing the plan laid out above.

c. Observation

Observation is the process of observing or monitoring teaching activities carefully in order to gain information based on the background of the study, the information, the findings and the planning. The researcher observed and monitored the teaching and learning process by using the guidelines of teaching and learning process observation.

In the observing phase, the writer as the observer did the following activities:

1) Observing the learning process

The observer observed the learning process using Cuisenaire rods directly in the class. The observer used documentation for data collection to gather evidence during the learning process of mastering vocabulary by using Cuisenaire rods in the classroom.

2) Observing the students' activities

The observer observed the students' activities during the learning process of mastering vocabulary by using Cuisenaire rods in the class based on observation sheets in the lesson plan.

3) Observing the class situation

The observer observed the situation during the learning process of mastering vocabulary by using Cuisenaire rods in the classroom. The observer took field note for data collection.

4) Notifying the result of assessment

The teacher determined the results of students' tests based on the lesson plan for teaching vocabulary mastery by

using Cuisenaire Rods. The observer notified the results of the assessment given by the teacher.

d. Reflection

Cycle 2 was the final cycle and there were no additional cycles after this. If the application of the process approach was considered successful, the writer determined that the project was effective in improving students' vocabulary mastery with Cuisenaire rods in an eighth grade class at SMPN 1 Kauman Ponorogo in the academic year of 2017/2018.

F. Research Schedule

No	Activity	Date
1	Preliminary observation : Interview with several eighth grade students at SMPN 1 Kauman Ponorogo	December 26th, 2017
2	Research proposal	December 1st, 2017 – January 18th, 2018
3	Acting research	Cycle 1 : April 20th – 21st , 2018 Cycle 2 : April 30th – May 1st , 2018

4	Analysis of the research	Cycle 1 : April 22nd – 25th , 2018 Cycle 2 : May 2nd – 5th , 2018
5	Reporting research	May 16th , 2018

CHAPTER IV

RESEARCH FINDINGS

A. Research Setting

The research was conducted at SMPN 1 Kauman Ponorogo, which is located at Jl. Candi no. 5 Nongkodono, Kauman Ponorogo.

The research subjects were 28 students in class 8A at SMPN 1 Kauman Ponorogo during the 2017/2018 academic year. There were 8 male and 20 female students. The research was done in two cycles, with each cycle consisting of four stages: planning, acting, observing and reflecting.

B. Cycle Explanation

1. Cycle 1

The first phase was conducted on April 20th, 2018. In this cycle the teacher had one meeting consisting of two 40 minute periods.

a. Planning

In this stage, the researcher planned what was needed for the research. Based on observations and the information previously obtained from the English teacher at SMPN 1 Kauman, the researcher prepared the treatment to increase students' vocabulary mastery.

In the first cycle, the teacher led the teaching and learning process during 2 x 40 minute periods, the school's normal teaching

schedule. The teaching and learning process used Cuisenaire rods in a lesson about narrative texts and the story of the Golden Cucumber. This cycle relied on the Classroom Action Research procedure that had already been planned by the researcher, including the following:

1) Curriculum Development.

   The researcher made a lesson plan based on the 2013 Indonesian Curriculum, also known as K13. The lesson plans included teaching goals, materials, tasks, and scoring guidelines. The researcher chose K13 in order to follow the policy of the government and the policy of the school, where K13 is already applied in daily teaching and learning activities.

2) Instructional strategies

   The strategy in the teaching and learning process was using the Silent Way method, because this method is appropriate for solving the problems of eighth graders at SMPN 1 Kauman Ponorogo. The researcher prepared the Cuisenaire rods as the media to be used with the Silent Way method. The different sizes and colors of the rods had different functions in the teaching and learning process. The yellow rods showed adjectives, the green rods showed nouns, and the blue rods showed verbs.

3) Assessment strategies

In this research, the vocabulary assessment used the Vocabulary Knowledge Scale technique. The Vocabulary Knowledge Scale (VKS) is a self-report assessment that is consistent with Dale's incremental stages of word learning. The VKS format and scoring guide fall into the following five categories[1]:

1.) I do not remember having seen this word before. (1 point)

2.) I have seen this word before, but I do not think I know what it means. (2 points)

3.) I have seen this word before, and I think it means _____. (Synonym or translation; 3 points)

4.) I know this word. It means _____. (Synonym or translation; 4 points)

5.) I can use this word in a sentence:_____. (if you do this section, please also complete category 4; 5 points)

The researcher also assessed the students' activeness by following the lesson plan guidelines. The researcher as the

[1] Katherine A. D. Stahl, & Marco A. Bravo, *Contemporary Classroom Vocabulary Assessment for Content Areas,* International Reading Association., DOI : 10.1598/RT.637.4. ISSN: 0034-0561 print/1963-2714 online, 2010, 570-572.

observer also took field notes and observed the students' activeness.

4) Classroom Management Strategies / Plans.

For classroom management, the teacher followed the lesson plan prepared by the researcher. There were three steps in the teaching and learning process, namely pre-activity, during activity, and post-activity. All the steps and the plans were suitable with the daily activities of the students and the teacher.

b. Acting

The researcher and the teacher did the session on Friday, 20 April 2018. The usage of Cuisenaire rod in increasing vocabulary mastery stated the lesson plan. The steps of the lesson plan were:

1) Pre-Activity

The teacher greeted to the students before started the lesson. Then the teacher checked the attendant list of the students. The teacher gave motivation to the student with played a game and then gave them understanding about the benefit from learning the narrative text. The teacher asked the students' readiness for learning the narrative text by gave them the questions related to the material on that day.

2) During Activity

The teacher read the story about the Golden Cucumber while using the different colored Cuisenaire rods when she read nouns, verbs and adjectives. The students paid attention while finding the meaning of the different colors of rod shown by the teacher. The students responded to the usage of the Cuisenaire rods in the text and analyzed the generic structure of the text. After finding the meaning from the colors of the rods, students applied the color in the text, then tried to sign the parts of speech based on the categories. With guidance from the teacher, the students checked the result of their work. They presented the text and used the rods to show their friends the part of speech.

3) Post-Activity

The teacher and students reflected and discussed the benefits of the teaching and learning process. The teacher and the students prepared feedback regarding the lesson. The teacher then gave the students homework related to the content and informed them of the next step of learning narrative texts and using Cuisenaire rods for English learning. The teacher then closed the teaching session.

c. **Observing**

In this phase, the researcher as the observer observed all aspects of the teaching and learning process. The observer used an observation sheet to observe students' activeness by noting their attitudes while the teaching and learning process was happening. The students' activeness was measured based on how they involved they were in the learning process and how they followed the instructions. Below is record of the students' activeness during the teaching and learning process in cycle 1.

Table 4.1
Record of student activeness in cycle 1

Numb.	Name	KI 1					KI 2					Explanation
		1	2	3	4	5	1	2	3	4	5	
1.	Aden Diva Ardinata	4	3	1	1	1	4	2	3	2	4	Active
2	Aisha Tabina Cahyarani Sunaryo	4	3	2	1	1	1	1	1	1	1	Less active
3.	Ajar Ryan Herlyansa	4	3	1	1	1	1	1	1	1	1	Less active
4.	Andrias Widyanto	4	3	1	1	1	1	1	1	1	1	Less active
5.	Ari Nur Diansyah	4	3	1	1	1	1	1	1	1	1	Less active
6.	Cikal Fardhia Ramadani	4	3	1	1	1	1	1	1	1	1	Less active
7.	Destiaransya B.S.A.	4	3	1	1	1	1	1	1	1	1	Less active
8.	Dewi Kirnawati	4	3	3	3	4	2	4	3	2	4	Very active

9.	Dhea Pravita Aviani	4	3	1	1	1	1	1	2	2	4	Less active
10.	Dinda Hanum Tri Ababil	4	3	1	1	2	2	2	2	2	1	Active
11.	Dyah Ayu Fernanda W.	4	3	1	1	1	1	1	1	1	1	Less active
12.	Elham Cahya Rahmadani	4	3	1	1	1	1	1	1	1	1	Less active
13.	Femas Rizki Cahyanto	4	3	1	1	1	1	1	1	1	1	Less active
14.	Fifin Nur Safika	4	3	1	1	1	1	1	1	1	1	Less active
15.	Khoirul Muchlisin	4	3	1	1	1	1	1	1	1	1	Less active
16.	Marda Eka Avita Sari	4	3	1	1	1	1	1	1	1	1	Less active
17.	Nadia Nafissira Bawaqih	4	3	4	3	3	4	4	1	2	4	Very active
18.	Nisrina Rizky Putri	4	3	2	1	1	1	1	1	1	1	Less active
19.	Renaldi Irgi Pradipsi	4	3	1	1	1	1	1	1	1	1	Less active
20.	Salma Putri Rismayanti	4	3	3	2	3	1	1	3	2	3	Active
21.	Saniatuz Zahro Oktafiani	4	3	1	1	1	1	1	1	1	1	Less active
22.	Septi Yuanita Krisma	4	3	2	1	3	2	2	3	2	4	Active
23.	Silvia Nashihatul Umah	4	3	2	1	3	2	2	3	2	3	Active
24.	Syafiq Nashrullah	3	3	2	1	3	2	2	3	2	3	Active
25.	Tasya Agina Yuniar	3	3	1	1	1	1	1	1	1	1	Less active
26.	Thomas Yuangga Pratama	4	3	1	1	1	1	1	1	1	1	Less active
27.	Vivi Andy Maulida	4	3	3	1	3	3	3	3	2	2	Active
28.	Winarti	4	3	1	1	1	1	1	1	1	1	Less active

Besides activeness, the teacher tested students' achievement, especially in increasing vocabulary mastery. The teacher had already taught the Golden Cucumber material, and the observer needed to know the result of their understanding the material using Cuisenaire rods. The students filled out the VKS sheets, and the resulting scores are shown in the table below.

Table 4.2
Record of student achievement in cycle 1

Numb.	NAME	KKM	SCORE	NOTIFY
1	Aden Diva Ardinata	75	58	FAILED
2	Aisha Tabina Cahyarani S.	75	66	FAILED
3	Ajar Ryan Herlyansa	75	50	FAILED
4	Andrias Widyanto	75	55	FAILED
5	Ari Nur Diansyah	75	53	FAILED
6	Cikal Fardhia Ramadani	75	60	FAILED
7	Destiaransya B.S.A.	75	60	FAILED
8	Dewi Kirnawati	75	79	PASSED
9	Dhea Pravita Aviani	75	59	FAILED
10	Dinda Hanum Tri Ababil	75	65	FAILED
11	Dyah Ayu Fernanda W.	75	60	FAILED
12	Elham Cahya Rahmadani	75	58	FAILED

13	Femas Rizki Cahyanto	75	45	FAILED
14	Fifin Nur Safika	75	59	FAILED
15	Khoirul Muchlisin	75	55	FAILED
16	Marda Eka Avita Sari	75	70	FAILED
17	Nadia Nafissira Bawaqih	75	75	PASSED
18	Nisrina Rizky Putri	75	42	FAILED
19	Renaldi Irgi Pradipsi	75	59	FAILED
20	Salma Putri Rismayanti	75	68	FAILED
21	Saniatuz Zahro Oktafiani	75	42	FAILED
22	Septi Yuanita Krisma	75	66	FAILED
23	Silvia Nashihatul Umah	75	62	FAILED
24	Syafiq Nashrullah	75	62	FAILED
25	Tasya Agina Yuniar	75	-	FAILED
26	Thomas Yuangga Pratama	75	59	FAILED
27	Vivi Andy Maulida	75	70	FAILED
28	Winarti	75	51	FAILED

From the table above, we can see that only 2 students passed the test, and the rest failed, even though there was some progress in cycle 1.

d. Reflecting

From the observing and the acting stages, there were strengths and weaknesses in using Cuisenaire rods as tools of teaching and learning vocabulary.

From the observation above, it can be concluded that:

1) Not many students are active yet.

2) Many students did not know the usage of the words in the sentences. The Vocabulary Knowledge scale (VKS) results showed that a lot of students did not yet know the meaning and the usage of the words in the sentences, but they had encountered the words before.

3) A lot of students did not pass the standard of mastery minimum criteria score (KKM,) which was 75.

4) Because that was the first time the students studied with Cuisenaire Rods, they felt that it was difficult to comprehend the instructions.

Based on the reflections above, the researcher concluded that cycle 1 was not successful yet. The researcher decided to continue the research to cycle 2 to improve the goals of this research and attempted to solve the problems from cycle 1 in this next cycle.

2. Cycle 2

Cycle 2 was conducted on April 30th, 2018. The steps of Classroom Action Research in cycle 2 were:

a. Planning

Cycle 2 of Classroom Action Research was conducted based on the results of observation and reflection in cycle 1. The researcher used a different text for the narrative text; namely, a story titled "The Lion and The Mouse," and used the same strategy of teaching used previously. The activities in this stage were as follows:

1) Curriculum Development.

The researcher made a lesson plan following K13, with the same procedure.

2) Instructional strategies

The strategy in the teaching and learning process still used the Silent Way method and Cuisenaire rods as tools. The researcher prepared the Cuisenaire rods as the media for the Silent Way method. The different sizes and colors of the Cuisenaire rods had different functions in the teaching and learning process. The yellow rods showed adjectives, the green rods showed nouns, and the blue rods showed verbs.

3) Assessment strategies

In this research, the vocabulary assessment used the Vocabulary Knowledge Scale technique. The Vocabulary Knowledge Scale (VKS) is a self-report assessment that is consistent with Dale's incremental stages of word learning. The VKS format and scoring guide fall into the following five categories[2]:

a) I do not remember having seen this word before. (1 point)

b) I have seen this word before, but I do not think I know what it means. (2 points)

c) I have seen this word before, and I think it means _____. (Synonym or translation; 3 points)

d) I know this word. It means _____. (Synonym or translation; 4 points)

e) I can use this word in a sentence:_____. (if you do this section, please also complete category 4;5 points)

The researcher also assessed the students' activeness by following the lesson plan guidelines. The researcher as the

observer also took field notes and observed the students' activeness.

4) Classroom Management Strategies / Plans.

For classroom management, the teacher followed the lesson plan that was prepared by the researcher. There were three steps in the teaching and learning process, namely pre-activity, during activity, and post-activity. All of the steps and the plans were suitable with the daily activities of the students and the teacher.

b. **Acting**

The researcher and the teacher completed the session on Friday, 30 April 2018. The usage of Cuisenaire rods to increase vocabulary mastery started with lesson planning. The steps of the lesson plan were:

1) Pre-Activity

The teacher greeted the students before starting the lesson. Then the teacher checked the attendance list of the students. The teacher gave motivation to the students by playing a game and then explained the benefits of learning about narrative texts. The teacher assessed the students' readiness for learning the narrative text by giving them questions related to the material on that day.

2) During Activity

The teacher read the story "The Lion and The Mouse" while using the different colors of Cuisenaire rod when she read nouns, verbs and adjectives. The students paid attention while finding the meanings of the different colors of rod shown by the teacher. The students responded to the usage of the Cuisenaire rods in the text and analyzed the generic structure of the text. After finding the meanings of the colors of the rods, students applied the colors to the text. They tried to sign the part of speech based on the categories, and with guidance from the teacher, the students checked the results of their work. They presented the text and used the rods to tell their friends the parts of speech.

3) Post-activity

The teacher and students reflected and discussed the benefits of the teaching and learning process. The teacher and the students gave feedback on the lesson. The teacher then gave the students relevant homework and informed them about the next step of learning about narrative texts and the usage of Cuisenaire rods in English learning. The teacher then closed the teaching session.

c. **Observing**

In cycle 2, the researcher was still an observer. The aspects being observed were still the same: the activeness and the achievement

of the students. Below is the record of the students' activeness in cycle

2.

Table 4.3
Record of student activeness in cycle 2

Numb.	Name	KI 1					KI 2					Explanation
		1	2	3	4	5	1	2	3	4	5	
1.	Aden Diva Ardinata	4	2	2	3	2	4	3	3	3	4	Very active
2	Aisha Tabina Cahyarani Sunaryo	4	3	3	3	2	3	2	3	3	4	Active
3.	Ajar Ryan Herlyansa	4	3	3	1	2	3	2	2	2	3	Active
4.	Andrias Widyanto	4	2	2	2	1	3	2	3	2	4	Active
5.	Ari Nur Diansyah	4	2	2	2	1	3	3	3	3	4	Active
6.	Cikal Fardhia Ramadani	4	3	3	3	1	3	3	3	3	4	Active
7.	Destiaransya B.S.A.	4	3	4	3	3	2	3	3	2	4	Active
8.	Dewi Kirnawati	4	4	4	3	4	4	4	4	3	3	Very active
9.	Dhea Pravita Aviani	4	3	3	3	3	2	3	2	3	4	Active
10.	Dinda Hanum Tri Ababil	4	4	4	3	3	1	3	3	3	4	Active
11.	Dyah Ayu Fernanda W.	4	3	3	3	3	1	3	3	3	4	Active
12.	Elham Cahya Rahmadani	4	3	2	2	2	2	3	3	3	4	Active
13.	Femas Rizki Cahyanto	4	3	3	3	3	2	3	3	3	4	Active
14.	Fifin Nur Safika	4	3	3	3	3	3	3	3	3	4	Active
15.	Khoirul Muchlisin	4	3	2	3	3	4	3	3	3	4	Active

16.	Marda Eka Avita Sari	4	3	3	3	3	3	3	3	3	3	Active
17.	Nadia Nafissira Bawaqih	4	4	4	3	4	3	4	4	3	3	Very active
18.	Nisrina Rizky Putri	4	3	3	3	3	3	3	3	3	4	Active
19.	Renaldi Irgi Pradipsi	4	3	3	3	3	3	3	3	2	3	Active
20.	Salma Putri Rismayanti	4	3	3	3	3	3	3	3	2	4	Active
21.	Saniatuz Zahro Oktafiani	4	3	3	3	3	3	3	2	3	4	Active
22.	Septi Yuanita Krisma	4	4	4	3	4	2	4	3	2	3	Very active
23.	Silvia Nashihatul Umah	4	3	2	3	3	3	4	2	3	4	Very active
24.	Syafiq Nashrullah	3	1	2	3	1	3	4	2	2	3	Less ctive
25.	Tasya Agina Yuniar	3	2	1	2	1	2	1	3	1	2	Less active
26.	Thomas Yuangga Pratama	4	2	2	2	2	3	1	3	1	2	Less active
27.	Vivi Andy Maulida	4	4	2	3	3	2	1	2	2	3	Active
28.	Winarti	4	3	3	3	3	3	2	1	3	3	Less active

The observer also analyzed the results from the tests given to assess students' achievements. The scores are below.

Table 4.4
Record of student achievement in cycle 2

Numb.	NAME	KKM	SCORE	NOTIFY
1	Aden Diva Ardinata	75	66	FAILED
2	Aisha Tabina Cahyarani Sunaryo	75	86	PASSED

3	Ajar Ryan Herlyansa	75	68	FAILED
4	Andrias Widyanto	75	94	PASSED
5	Ari Nur Diansyah	75	70	FAILED
6	Cikal Fardhia Ramadani	75	75	PASSED
7	Destiaransya B.S.A.	75	96	PASSED
8	Dewi Kirnawati	75	99	PASSED
9	Dhea Pravita Aviani	75	80	PASSED
10	Dinda Hanum Tri Ababil	75	93	PASSED
11	Dyah Ayu Fernanda W.	75	86	PASSED
12	Elham Cahya Rahmadani	75	67	FAILED
13	Femas Rizki Cahyanto	75	81	PASSED
14	Fifin Nur Safika	75	86	PASSED
15	Khoirul Muchlisin	75	79	PASSED
16	Marda Eka Avita Sari	75	86	PASSED
17	Nadia Nafissira Bawaqih	75	90	PASSED
18	Nisrina Rizky Putri	75	90	PASSED
19	Renaldi Irgi Pradipsi	75	76	PASSED
20	Salma Putri Rismayanti	75	92	PASSED
21	Saniatuz Zahro Oktafiani	75	92	PASSED
22	Septi Yuanita Krisma	75	93	PASSED
23	Silvia Nashihatul Umah	75	87	PASSED

24	Syafiq Nashrullah	75	-	FAILED
25	Tasya Agina Yuniar	75	57	FAILED
26	Thomas Yuangga Pratama	75	66	FAILED
27	Vivi Andy Maulida	75	81	PASSED
28	Winarti	75	86	PASSED

From the table above, we can see that 21 students passed the test and only 7 students failed.

d. Reflecting

In cycle 2. the students were more serious in doing the assignment and more active in following the instructions in the teaching and learning process. They enjoyed the strategy and had fun using the media to learn vocabulary. Moreover, the students could use the words in context in sentences. All of this means that cycle 2 was successful. Of 28 students, 20 demonstrated that they had met the comprehension standard already. There was significant improvement in students' achievement of vocabulary mastery by using Cuisenaire rods from cycle 1 to cycle 2. From this result, it can be concluded that students at SMPN 1 Kauman Ponorogo succeeded at increasing their vocabulary mastery by using Cuisenaire rods.

C. Cycle Analysis

This research consisted of two cycles, both of which showed good improvement. The process of data analysis is shown below, covering the results of the Classroom Action Research, the students' understanding of the materials, and their activeness in learning English vocabulary mastery using Cuisenaire rods.

1. Cycle 1

During the teaching and learning process, the researcher observed the students' activeness as well. Measures of students' activeness were recorded as follows:

Table 4.5
Findings of student activeness in cycle 1

Aspect	Criteria		
	Less Active	Active	Very Active
Activeness	19	7	2

The amounts above can be expressed as percentages using the formula below:

$$P = \frac{fi}{N} \text{ x } 100\%$$

Notes :

P = Percentage

fi = Frequency of answer

N = Total number of respondents

The following calculations are based on the data collected about students' activeness:

a. Less active Students $= \frac{fi}{N}$ x 100%

$= \frac{19}{28}$ x 100%

$= 67.86\%$

b. Active Students $= \frac{fi}{N}$ x 100%

$= \frac{7}{28}$ x 100%

$= 25\%$

c. Very active Students $= \frac{fi}{N}$ x 100%

$= \frac{2}{28}$ x 100%

$= 7.14\%$

Therefore, the results of observing students' activeness are as follows:

Table 4.6
Percentages of student activeness in cycle 1

Aspect	Criteria		
	Less Active	Active	Very Active
Activeness	67.86%	25%	7.14%

The observation sheets show that the students' activeness was relatively low, as shown in the percentages above.

The researcher also observed the students' achievement results. It can be seen than no students passed the assignment of vocabulary mastery using Vocabulary Scale Score (VKS) sheets. Also, the observer measured the average scores of the class. They are as follows:

Table 4.7
Results of the Vocabulary Scale Score in cycle 1

NUMB.	NAME	KKM	PRETEST	CYCLE I
1	Aden Diva Ardinata	75	32	58
2	Aisha Tabina Cahyarani S.	75	48	66
3	Ajar Ryan Herlyansa	75	20	50
4	Andrias Widyanto	75	34	55
5	Ari Nur Diansyah	75	21	53
6	Cikal Fardhia Ramadani	75	36	60
7	Destiaransya B.S.A.	75	36	60
8	Dewi Kirnawati	75	74	79
9	Dhea Pravita Aviani	75	34	59
10	Dinda Hanum Tri Ababil	75	45	65
11	Dyah Ayu Fernanda W.	75	35	60
12	Elham Cahya Rahmadani	75	32	58

13	Femas Rizki Cahyanto	75	22	45
14	Fifin Nur Safika	75	34	59
15	Khoirul Muchlisin	75	26	55
16	Marda Eka Avita Sari	75	56	70
17	Nadia Nafissira Bawaqih	75	62	75
18	Nisrina Rizky Putri	75		42
19	Renaldi Irgi Pradipsi	75	33	59
20	Salma Putri Rismayanti	75	52	68
21	Saniatuz Zahro Oktafiani	75		42
22	Septi Yuanita Krisma	75	48	66
23	Silvia Nashihatul Umah	75	40	62
24	Syafiq Nashrullah	75	40	62
25	Tasya Agina Yuniar	75		
26	Thomas Yuangga Pratama	75	34	59
27	Vivi Andy Maulida	75	56	70
28	Winarti	75	20	51

Pretest

$$\mathbf{Mx} = \frac{\sum_{i=1}^{n} Xi}{n}$$

$$Mx = \frac{970}{28}$$

$$Mx = 38.8$$

Cycle 1

$$\mathbf{Mx} = \frac{\sum_{i=1}^{n} Xi}{n}$$

$$Mx = \frac{1608}{28}$$

$$Mx = 59.6$$

Based on table 4.2, the percentage of passing and failing students are as follows:

$$\mathbf{P} = \frac{fi}{N} \mathbf{\ x\ 100\%}$$

Percentage of passing students:

$$P = \frac{fi}{N} \text{ x } 100\%$$

$$P = \frac{2}{28} \text{ x } 100\% = 7.14\%$$

Percentage of failing students:

$$P = \frac{fi}{N} \text{ x } 100\%$$

$$P = \frac{26}{28} \text{ x } 100\% = 92.85\%$$

Table 4.8
Percentages of passing and failing students in cycle 1

VKS	Total students	Percentage
Passed	2	7.14 %
Failed	26	92.85 %

Based on the table above, the results of the first cycle showed that far less than 20% of students could reach the minimum standard. The standard of Mastery Minimum Criteria Score for the English subject at SMPN 1 Kauman Ponorogo is 75. Therefore, increasing vocabulary mastery by using Cuisenaire rods in class 8A, SMPN 1 Kauman Ponorogo needed to be continued in a second cycle.

2. **Cycle 2**

In the second cycle, the researcher still acted as an observer. The writer showed the results of the students' activeness based on table 4.3, and they can be seen as follows:

Table 4.9
Findings of student activeness in cycle 2

Aspect	Criteria		
	Less Active	**Active**	**Very Active**
Activeness	3	20	5

The amounts above can be expressed as percentages using the formula below:

$$P = \frac{fi}{N} \text{ x } 100\%$$

Notes :

P = Percentage

fi = Frequency of answer

N = Total number of respondent

The following calculations are based on the data collected about students' activeness:

d. Less active Students $= \frac{fi}{N}$ x 100%

$= \frac{3}{28}$ x 100%

$= 10.71\%$

e. Active Students $= \frac{fi}{N}$ x 100%

$= \frac{20}{28}$ x 100%

$= 71.43\%$

f. Very active Students $= \frac{fi}{N}$ x 100%

$= \frac{5}{28}$ x 100%

= 17.86%

Therefore, the results of observing students' activeness are as follows:

Table 4.10
Percentages of student activeness in cycle 2

Aspect	Criteria		
	Less Active	**Active**	**Very Active**
Activeness	10.71%	71.43%	17.86%

The observation sheets show that the students' had much higher levels of activeness than they did in cycle 1, as can be seen in the percentages above.

The researcher also showed the results from the assignment of vocabulary mastery using Vocabulary Knowledge Scale (VKS) sheets. Additionally, the observer measured the average scores of the class. They are as follows:

Table 4.11
Results of the Vocabulary Scale Score in cycle 2

Numb.	NAME	KKM	SCORE	NOTIFY
1	Aden Diva Ardinata	75	66	FAILED
2	Aisha Tabina Cahyarani S.	75	86	PASSED
3	Ajar Ryan Herlyansa	75	68	FAILED
4	Andrias Widyanto	75	94	PASSED
5	Ari Nur Diansyah	75	70	FAILED
6	Cikal Fardhia Ramadani	75	75	PASSED
7	Destiaransya B.S.A.	75	96	PASSED
8	Dewi Kirnawati	75	99	PASSED
9	Dhea Pravita Aviani	75	80	PASSED
10	Dinda Hanum Tri Ababil	75	93	PASSED
11	Dyah Ayu Fernanda W.	75	86	PASSED
12	Elham Cahya Rahmadani	75	67	FAILED
13	Femas Rizki Cahyanto	75	81	PASSED
14	Fifin Nur Safika	75	86	PASSED
15	Khoirul Muchlisin	75	79	PASSED
16	Marda Eka Avita Sari	75	86	PASSED
17	Nadia Nafissira Bawaqih	75	90	PASSED
18	Nisrina Rizky Putri	75	90	PASSED

19	Renaldi Irgi Pradipsi	75	76	PASSED
20	Salma Putri Rismayanti	75	92	PASSED
21	Saniatuz Zahro Oktafiani	75	92	PASSED
22	Septi Yuanita Krisma	75	93	PASSED
23	Silvia Nashihatul Umah	75	87	PASSED
24	Syafiq Nashrullah	75		FAILED
25	Tasya Agina Yuniar	75	57	FAILED
26	Thomas Yuangga Pratama	75	66	FAILED
27	Vivi Andy Maulida	75	81	PASSED
28	Winarti	75	86	PASSED

Cycle 2

$$\mathbf{Mx} = \frac{\sum_{i=1}^{n} Xi}{n}$$

$$\mathrm{Mx} = \frac{2222}{28}$$

$$\mathrm{Mx} = 82.30$$

Based on table 4.2, the percentages of passing and failing students can be shown as follows:

$$\mathbf{P} = \frac{fi}{N} \mathbf{x\ 100\%}$$

Percentage of passing students:

$$P = \frac{fi}{N} \text{ x } 100\%$$

$$P = \frac{21}{28} \text{ x } 100\% = 75\%$$

Percentage of failing students:

$$P = \frac{\square\square}{\square} \text{ x } 100\%$$

$$P = \frac{7}{28} \text{ x } 100\% = 25\%$$

Table 4.12
Percentages of passing and failing students in cycle 2

VKS	Total students	Percentage
Passed	20	71.43%
Failed	8	28.57%

The table of results from the 2nd cycle showed that more than 70% of students could meet the minimum standard. The standard of Mastery Minimum Criteria Score for English subject at SMPN 1 Kauman Ponorogo is a score of 75. Therefore, increasing vocabulary mastery by using Cuisenaire Rods in class 8A, SMPN 1 Kauman Ponorogo in the second cycle had succeeded, and no further cycles were necessary.

D. Discussion

The results of this research showed that the students' activeness using Cuisenaire rods in the process of learning vocabulary mastery led to improvements in student achievement. The researcher found a strategy that

can help solve the problem at SMPN 1 Kauman Ponorogo, as the teacher expected. The comparison of the cycles can be analyzed in the tables below:

1. Students' activeness

Table 4.13
Comparison of the results of records of student activeness

Level	Cycle 1		Cycle 2	
	f	%	F	%
Very active	2	7.14%	5	17.86%
Active	7	25%	20	71.43%
Less active	19	67.86%	3	10.71%

The table above shows the improvement in students' activeness when increasing vocabulary mastery by using Cuisenaire rods. This result shows that there were specific differences between cycle 1 and cycle 2. The students' activeness influenced the students' understanding of the materials. The Silent Way method is designed to make students more active and involved in the learning process instead of only being listeners who listen to a teacher's explanation.

It was not easy to find a strategy that could help increase students' activeness in the teaching and learning process. Teachers should find interesting media to use in their classes. In addition to being tools, media are a kind of teaching supporter or learning motivator. As Murcia said, media can

be an important motivator in the language teaching processes.[3] Using media in language teaching has a lot of advantages. One of them is that media can be used to promote students' abilities in any expected proficiency. By using the media, learners can be motivated so that they tend to learn more while gaining the objective of the use of the media as long as the media is used creatively and appropriately.[4] Cuisenaire rods are new tools in English learning and teaching and are the tools of the Silent Way approach. The Silent Way can be a very effective method to invite students to become more involved in the teaching and learning process, especially in teaching English as a foreign language. The Silent Way belongs to a tradition that views learning as a problem solving, creative, discovering activity, in which the learner is a principal actor rather than a bench-bound listener.[5] The teacher should also chooses appropriate media for implementing the Silent Way method. Many media can be used for this purpose, including charts, Cuisenaire rods, etc. The Cuisenaire rods have been proven effective for teaching English as a second language, and also in teaching vocabulary or increasing vocabulary mastery for students.

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[3] Marianne Celce Murcia, *Teaching English as ASecond or Foreign Language* (London: Thomson Learning, 2001), 461.

[4] Syifa' Khuriyatuz Zahro, *Cuisenaire Rods as a Media to Improve Students' Speaking Skill in Retelling Story (An Experimental Study at SMA Bina Bangsa Surabaya.* (Surabaya: UIN Sunan Ampel, 2013).

[5] Richards, J.C. y T.S. Rodgers *The Silent Way. En Approaches and Methods in Language Teaching*, (Reino Unido: Cambridge University Press, 1987), 121.

In the second cycle, the students were more active, which influenced the results of the study. In the first cycle, the teaching and learning process had only 7.14% of students who are very active, 25% of students who were active, and 67.86% of students were less active. Even though there were improvements in the students' activeness after using Cuisenaire rods, the researcher continued to the second cycle to see better improvement. Students in cycle 1 were confused about how to use the Cuisenaire rods to learning vocabulary. In the results of cycle 2, it can be seen that there was a decrease of more than 50% in students who were less active. In cycle 2, Students who were less active in the teaching and learning process were only 10.71 %, the percentage of active students was 71.45%, and the students who showed the highest level of activeness (very active) in the class were 17.86%.

The conclusion is that the Silent Way is an effective method for improving both students' achievements and students' activeness. The media used to implement the Silent Way method for teaching vocabulary was Cuisenaire rods. The Cuisenaire rods are interesting for students, allowing them to learn while playing and become more active in the learning process. This improvement can be seen in the following histogram:
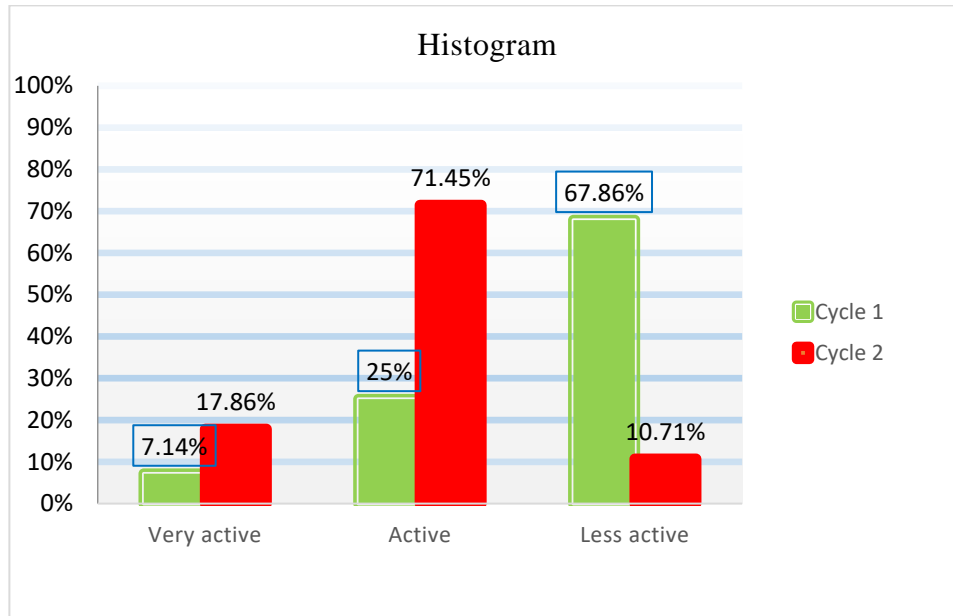
Chart 4.1

Histogram comparing student activeness between cycle 1 and cycle 2

2. Post Test

Table 4.14

Comparison of the results of records of student achievement

Aspect		Cycle 1		Cycle 2	
		F	%	F	%
Passed		2	7.14%	21	75%
Failed		26	92.85%	7	25%

Increasing vocabulary mastery was not achieved maximally in cycle 1 because some students did not pay attention during the teaching process. They did not pay attention to the teacher's explanation, some of them became

confused about how to use the media, some played by themselves, and some opted not to be active in the teaching and learning process.

The improvement in cycle 2 was partially the result of improved classroom management on the part of the teacher when implementing the Cuisenaire rods as the media for teaching. The goals of the teaching and learning could be reached better and students had a good understanding of the material. The appropriate method and media in the teaching and learning process and material characteristic of the object in teaching could increase students' activeness and achievement.

The purpose of the post test was to know the students' abilities in mastering vocabulary. The test was related to the materials in the teaching and learning process. This Classroom Action Research involved a written test in each cycle. The written test used a vocabulary knowledge scale (VKS) to know the students' vocabulary mastery and a worksheet to know students' levels of achievement in English. Here is the diagram of student results in achievement from cycle 1 and cycle 2.
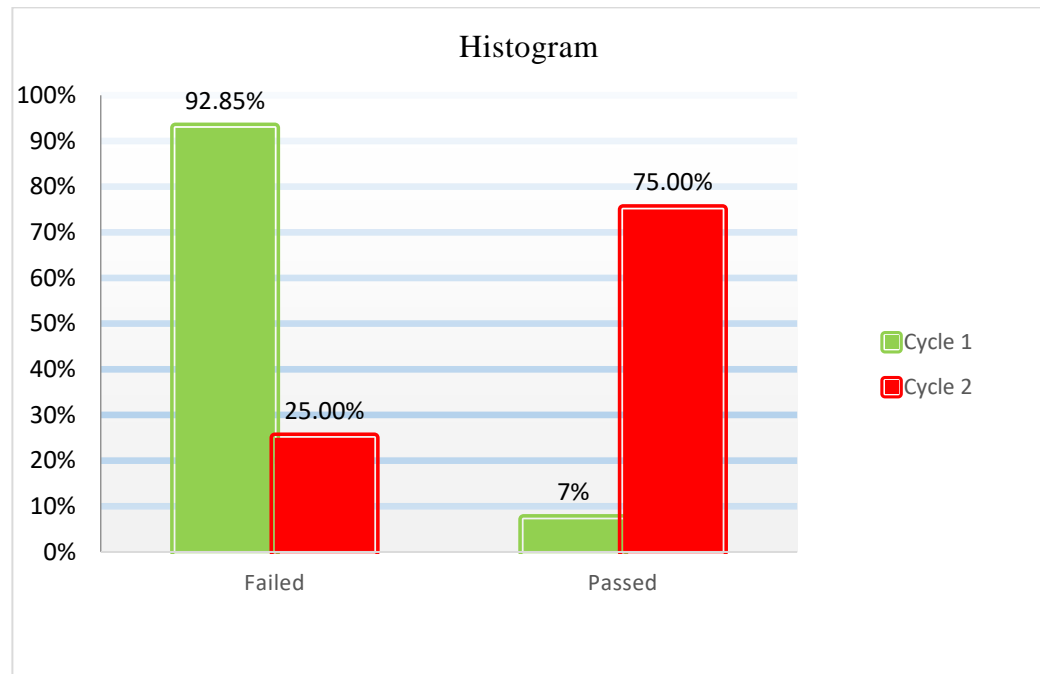
Chart 4.2

Histogram comparing student achievement between cycle 1 and cycle 2.

The result of the Classroom Action Research was improvement in each cycles. Therefore, it can be concluded that using Cuisenaire rods to increase the vocabulary of students at SMPN 1 Kauman Ponrogo in the 2017/2018 academic year was successful.

The full results of the students' improvement from pre test to post test in cycle 1 and cycle 2 can be seen in the following chart:
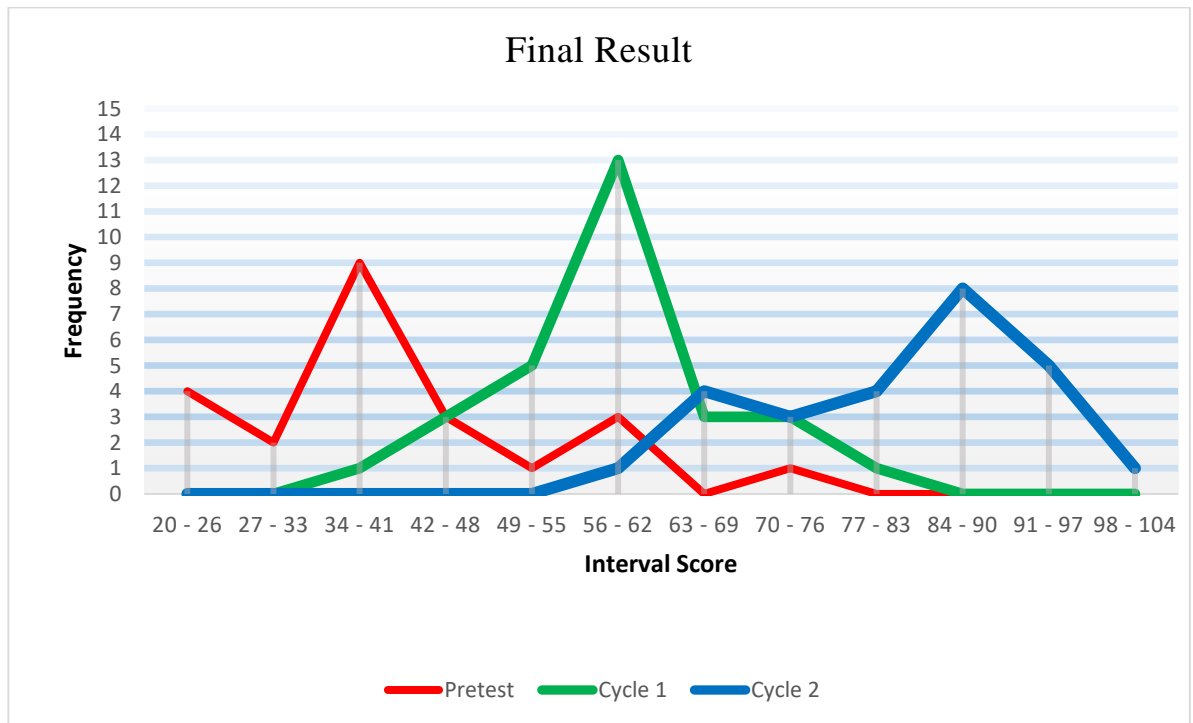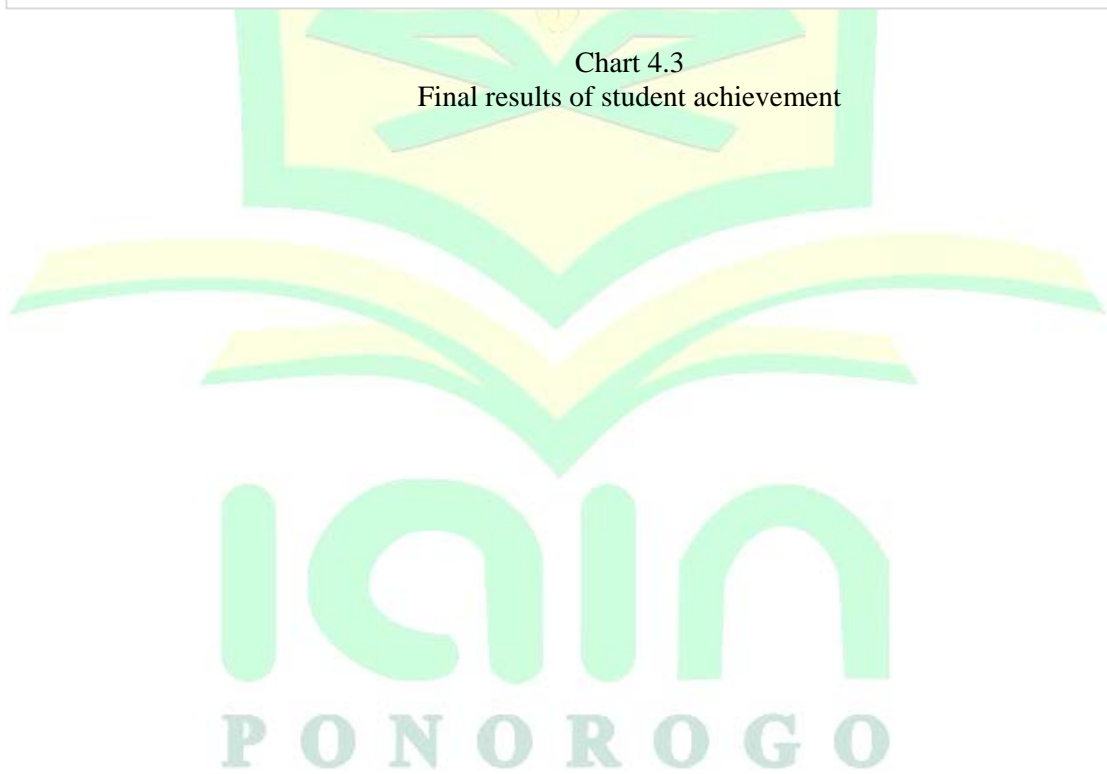
Chart 4.3
Final results of student achievement

CHAPTER V

CLOSING

A. Conclusion

Based on the research conducted in class 8A at SMPN 1 Kauman Ponorogo, using Cuisenaire Rods can increase students' activeness in the English teaching and learning process, especially as it relates to increasing vocabulary mastery. This statement can be explained using the result data from each cycle.

In every cycle, this research followed the procedure of how to use Cuisenaire rods for learning a foreign language. In the first cycle, the teacher and students were confused about how to use the rods. In the first activity, the teacher followed the procedure in the lesson plan, but students got confused because they were experiencing something new. In the second activity, the students started enjoying the process. They played and learned the material using the media. Then, in the last activity, which was the test, the students passed well enough but didn't meet the standard criteria (KKM). The research continued to cycle 2. The teacher and the students enjoyed the process and using the media very much. The students got the point, understood the purposes and saw how Cuisenaire rods could help increasing their vocabulary mastery.

The results of the test from each cycle will be shown. In cycle 1, of 28 students, 7.14% were very active, 25% were active, and 67.86% were less active. In the cycle 2, of the same 28 students, there was a decreasing percentage of students who were less active in the teaching and learning process of increasing vocabulary by using Cuisenaire rods. Only about 10.71% were less active, while the percentage of active students was 71.45% and the students who had highest level of activeness were 17.86%.

Cuisenaire rods can also improve students' achievement in increasing vocabulary at SMPN 1 Kauman Ponorogo. This statement can be proven from the results of the research in every cycle. In cycle 1, of 28 students, only 7.14% passed the standard of Mastery Minimum Criteria Score for the English subject at SMPN 1 Kauman Ponorogo, which is 75. The rest of the students, about 92.85%, failed. In cycle 2, of the same 28 students, 75% passed the standard of Mastery Minimum Criteria Score for the English subject at SMPN 1 Kauman Ponorogo, and only 25% failed.

B. Recommendations

In this part, the writer gives recommendations related to Classroom Action Research. These suggestions are a follow-up based on the conclusions obtained. These suggestions are intended for:

1. The Institution

For the institution, SMPN 1 Kauman Ponorogo should be encouraged and supported by English teachers to improve their quality

in teaching. The teaching and learning process will run well if the school provides facilities that are needed by both teachers and students. In addition to that, the school should hold regular meetings with the English teacher in order to discuss the problems faced by them and figure out the solutions.

2. The Teacher

   a. Applying the various kinds of English teaching instructions and improving classroom management may provide teachers and students with new experiences in the teaching and learning process. It is recommended that teachers select an appropriate English teaching technique to be implemented, as this will help make them better able to achieve their teaching goals. It is also recommended that teachers enrich the way they teach by applying various kinds of interactive activities while using Cuisenaire rods. This can motivate English teachers to improve students' motivation to increase their vocabulary, and also make new innovations by using Cuisenaire rods to increase vocabulary mastery.

   b. When teaching, teachers have to be creative, innovative and motivated in developing the teaching and learning process. It is suggested that teachers apply suitable strategies and media when teaching English. Here, Cuisenaire rods can be chosen as the

media for the teaching and learning process of increasing vocabulary mastery. Various suitable and appropriate techniques will help students enjoy the learning process, stay engaged during learning activities, and worry less.

c. Before starting the teaching process, teachers should understand their students' abilities and attitudes. This is important in order to give them the best service possible and also important to consider when choosing media.

3. The Student

a. Vocabulary is the key to learning a new language. By mastering vocabulary, students will enrich their understanding and improve their usage of the language. Good students have to increase their vocabulary mastery, not only memorizing words but also understanding their usage in context.

b. It is suggested that students be active and involved in the teaching and learning process. By having active participation, asking about problems, and expressing their ideas, they can reduce their difficulties in learning English as a foreign language. They will also improve their English achievement.

4. The Researcher

a. It is recommended that researchers conduct research about the appropriate media to use in the teaching and learning process for

English as a foreign language. This will be an important step toward improving education in Indonesia.

b. It is suggested that the researchers explore and conduct more research related to the usage of Cuisenaire rods to teach other English skills. This will help to support the usage of Cuisenaire rods in the teaching process, because Cuisenaire rods can be applied to skills other than increasing vocabulary mastery.
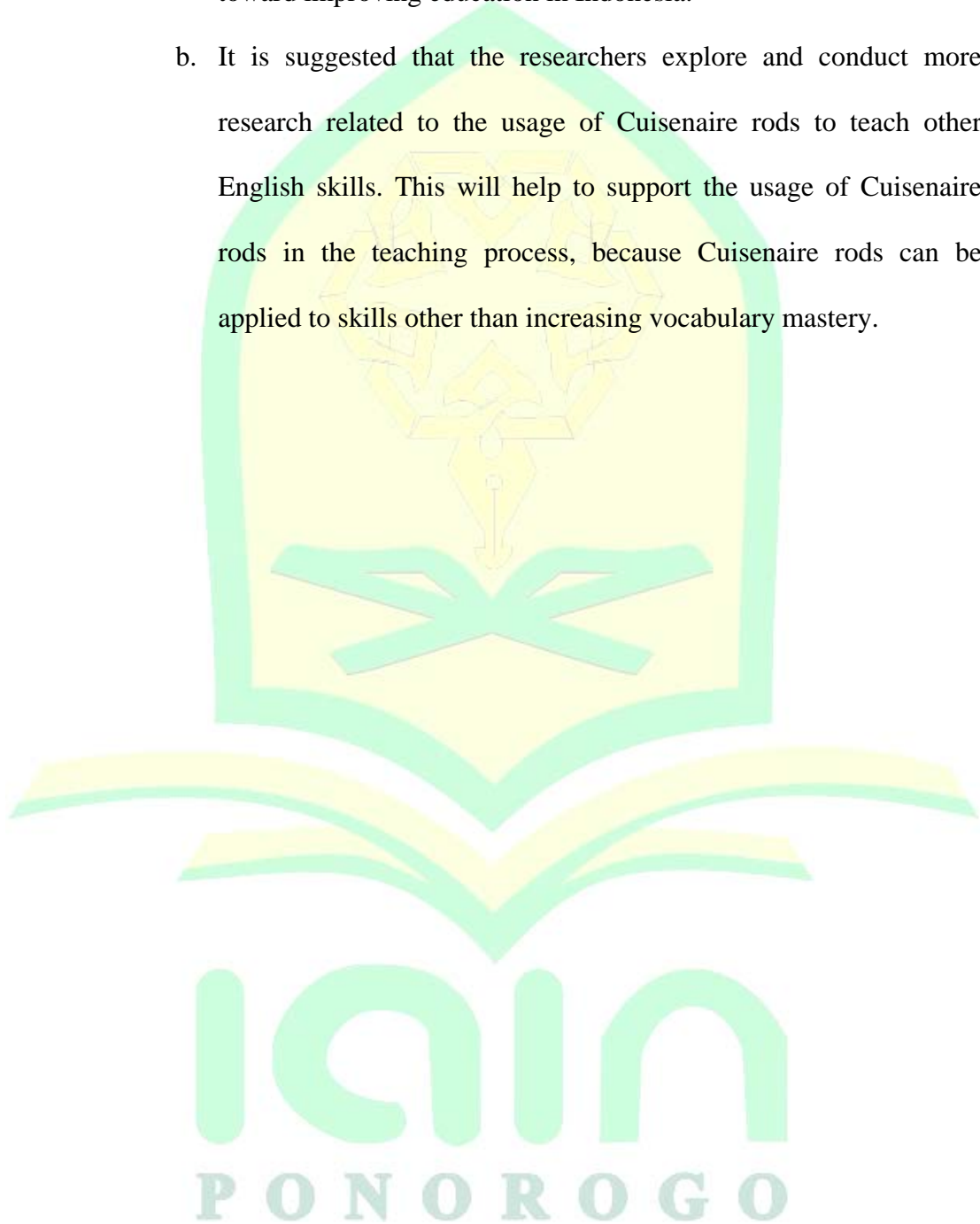
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