THE EFFECTIVENESS OF SOCRATIVE APPLICATION FOR FORMATIVE ASSESSMENT IN TEACHING VOCABULARY AT SMA MUHAMMADIYAH 1 PONOROGO

THESIS

By

FITRIANI NURHASANAH

NIM. 210916060

ENGLISH EDUCATION DEPARTMENT

FACULTY OF EDUCATION AND TEACHER TRAINING

STATE INSTITUTE OF ISLAMIC STUDIES PONOROGO

OCTOBER 2020

THE EFFECTIVENESS OF SOCRATIVE APPLICATION FOR FORMATIVE ASSESSMENT IN TEACHING VOCABULARY AT SMA MUHAMMADIYAH 1 PONOROGO

THESIS

Presented to

State Institute of Islamic Studies Ponorogo

in Partial Fulfillment of the Requirement

for Degree of Sarjana in English Education

By

FITRIANI NURHASANAH

NIM. 210916060

ENGLISH EDUCATION DEPARTMENT

FACULTY OF EDUCATION AND TEACHER TRAINING

STATE INSTITUTE OF ISLAMIC STUDIES PONOROGO

OCTOBER 2020

ABSTRACT

Nurhasanah, Fitriani. 2020. *The Effectiveness of Socrative Application for Formative Assessment in Teaching Vocabulary at SMA Muhammadiyah 1 Ponorogo*. **Thesis**. English Education Department, Tarbiyah and Teacher Training of Faculty, State institute of Islamic Studies Ponorogo. Advisor Nurul Khasanah, M.Pd.

Key words: socrative application, formative assessment, teaching vocabulary

Vocabulary is the most important aspect in English teaching and learning. We can't understand English language without vocabulary. And also if we have nothing vocabulary, we can't understand about English spoken and written. Based on this fact, vocabulary is not just the important aspect, but the most important aspect in learning English. To measure students' vocabulary mastery, English teachers need to do an assessment in the end of English teaching learning process. However, based on the researcher's observation in SMA Muhammadiyah 1 Ponorogo there are still any students who didn't interest and have low motivation while formative assessment process. Because of their low motivation while formative assessment, it can influenced to their achievement of vocabulary mastery. One of many suitable solution that can be choosen to increase students' motivation while formative assessment is by using mobile learning. One of mobile learning media that can be used for formative assessment is socrative application. Socrative application is one of the popular student online response systems that empower teacher to engage their students in classroom activities by using a quiz question.

The objective of this research was to find out whether there is any significant difference vocabulary mastery between students who used socrative application for formative assessment and who are not used socrative application for formative assessment.

This research applied quantitative research approach and used quasi-experimental design. In this research, the researcher used two classes (experimental class and control class) as a sample. The population of eleventh science grade in SMA Muhammadiyah 1 Ponorogo was 115 students. The number of sample in this research was 30 students of experimental class (XI IPA4) and 31 students of control class (XI IPA3). The researcher used simple random sampling to choose the sample in this research. The data were obtained by using a pre-test and post-test. The pre-test was given to both classes before the treatment and the post-test was given after the treatment.

After getting the score of pre-test and post-test, the data were analyzed and processed by using T-test formula using SPSS 23 versions for Windows. The result of this research showed that the average of post-test of experimental class is 87.70 and the average score of post-test of control class is 77.74. The value of t-test = 3,226 with df = 59 on level significance 5%. According to the table value "t" = 1,671. Then t_{count} higher than t_{table} (3,226 > 1,671). Therefore, H_1 is accepted and H_0 is rejected.

So, it can be concluded that there is significant difference on students' vocabulary mastery that used socrative application for formative assessment and that are not. In the other words, Socrative Application is effective for formative assessment on students' vocabulary mastery of eleventh science grade of SMA Muhammadiyah 1 Ponorogo.

APPROVAL SHEET

This is to certify that Sarjana's thesis of:

Name : Fitriani Nurhasanah

Student number : 210916060

Faculty : Tarbiyah and Teacher Training

Department : English Education

Title : The Effectiveness of Socrative Application for Formative Assessment in Teaching Vocabulary at SMA Muhammadiyah 1 Ponorogo

Has been approved by the advisor and recommended for approval and acceptance.

Ponorogo, 15 June 2020

Advisor

Nurul Khasanah, M.Pd
NIP.198406112009122003

Acknowledged by
Head of English Education Department of
Tarbiyah and Teacher Training Faculty
State Institute of Islamic Studies Ponorogo

Pryla Rochmahwati, M.Pd
NIP. 198103162011012003

KEMENTERIAN AGAMA REPUBLIK INDONESIA
INSTITUT AGAMA ISLAM NEGERI PONOROGO

PENGESAHAN

Skripsi atas nama saudara :

Nama	:	**FITRIANI NURHASANAH**
NIM	:	210916060
Fakultas	:	Tarbiyah dan Ilmu Keguruan
Jurusan	:	Tadris Bahasa Inggris
Judul Skripsi	:	THE EFFECTIVENESS OF SOCRATIVE APPLICATION FOR FORMATIVE ASSESSMENT IN TEACHING VOCABULARY AT SMA MUHAMMADIYAH 1 PONOROGO

Telah dipertahankan pada sidang Munaqasah di Fakultas Tarbiyah dan Ilmu Keguruan, Institut Agama Islam Negeri Ponorogo, pada :

Hari	:	Kamis
Tanggal	:	1 Oktober 2020

dan telah diterima sebagai bagian dari persyaratan untuk memperoleh gelar Sarjana Tadris Bahasa Inggris, pada :

Hari	:	Selasa
Tanggal	:	13 Oktober 2020

Ponorogo, 2 November 2020
Dekan Fakultas Tarbiyah dan Ilmu Keguruan,

Dr. AHMADI, M.Ag.
NIP. 196812171997031003

Tim Penguji Skripsi :

1. Ketua Sidang : **PRYLA ROCHMAHWATI, M.Pd**
2. Penguji I : **Dr. DHINUK PUSPITA KIRANA, M.Pd**
3. Penguji II : **NURUL KHASANAH, M.Pd**

SURAT PERSETUJUAN PUBLIKASI

Yang bertanda tangan di bawah ini :

Nama : Fitriani Nurhasanah

NIM : 210916060

Jurusan : Tadris Bahasa Inggris

Judul Skripsi : The Effectiveness of Socrative Application for Formative Assessment in Teaching Vocabulary at SMA Muhammadiyah 1 Ponorogo

Menyatakan bahwa naskah skripsi/thesis telah diperiksa dan disahkan oleh dosen pembimbing selanjutnya saya bersedia naskah tersebut di publikasikan oleh perpustakaan IAIN Ponorogo yang dapat di akses die theses.iainponorogo.ac.id. Adapun isi dari keseluruhan tulisan tersebut sepenuhnya menjadi tanggung jawab dari penulis.

Demikian pernyataan saya untuk dapat dipergunakan semestinya

Ponorogo, 12 November 2020

Penulis

Fitriani Nurhasanah

PERNYATAAN KEASLIAN TULISAN

Saya yang bertanda tangan di bawah ini :

Nama : Fitrani Nurhasanah

NIM : 210916060

Jurusan : Tadris Bahasa Inggris

Judul Skripsi : **The Effectiveness of Socrative Application for Formative Assessment in Teaching Vocabulary at SMA Muhammadiyah 1 Ponorogo**

Dengan ini menyatakan dengan sebenar-benarnya bahwa skripsi yang saya tulis ini adalah benar-benar merupakan hasil karya saya sendiri, bukan merupakan pengambil-alihan atau pikiran orang lain yang saya aku sebagai hasil tulisan atau pikiran saya sendiri.

Apabila di kemudian hari terbukti atau dapat dibuktikan skripsi ini hasil jiplakan, maka saya bersedia menerima sanksi atas perbuatan tersebut.

Ponorogo, 12 November 2020

Yang Membuat Pernnyataan

Fitriani Nurhasanah

CHAPTER I

INTRODUCTION

A. Background of the Study

English has turn out to be a lingua franca. A lingua franca can be defined as a language that is adopted for conversation between two speakers whose native languages or using it as a second language.[1] It makes English as an International language that is learned many students in the world, not except in Indonesia.

In learning English, it always relates to the four skills. They are writing, speaking, reading and listening.[2] Besides the four cores of language skills, the students should have well understanding of English component such as vocabulary and grammar to support their mastery of four language skills.

Vocabulary refers to a set of words for particular language or a list phrases that individual speaker of language use.[3] It is one of the important aspect of English that will make the students easy to learning English and master other skills of English.

Vocabulary is the most important aspect in English teaching and learning. We can't understand English without vocabulary. And also we can't understand about English spoken and written while we have nothing about vocabulary. Because a speaker who will speak English fluently, they must have a few vocabularies at least. Based on this fact, vocabulary is not just very important aspect in learning English, but the most important aspect in learning English.

To measure students' vocabulary mastery, English teachers need to do an assessment in the end of English teaching learning process. However, the students usually don't interest while formative assessment process and it can influence to their achievement in vocabulary

[1]Jeremy Harmer, *The Practice of English Language Teaching Third Edition*, (Longman, 1997), 1.

[2]Namita Rey Choudbury, *Approach and Methods* in *English Language Teaching*, (Cambridge: Himalaya Publishing House), 27.

[3]Evelyn Hatch and Cheryl Brown, *Vocabulary, Semantics, and Language Education*, (New York: Cambridge University Press, 1997), 1.

mastery. One of many suitable solution that can be choosen to increase students' interesting while formative assessment is by using mobile learning.

Mobile learning can be defined as electronical media devices such as the smartphone, computer, laptops that used in language learning. Mobile learning can increase the mobility of learners, the learners can learn everytime and everywhere. With portable and personal mobile devices, learners can be engaged more flexible and accessible in learning practices without constraint on places.[4]

From the reason above, the researcher uses socrative application as a media for formative assessment. Socrative application is one of the popular student online response systems that empower teachers to engage their students in classroom activities.[5] It is considered suitable as an application that can be used to increase students' motivation in doing formative assessment. According to relevant research about Mobile-Assisted Language Learning (MALL) defined that socrative application not only can enhance students' English ability but also increase students' learning motivation. Seemingly, it is helpful and efficient for students using socrative application for formative assessment.[6]

Socrative application can facilitate teacher's question-giving and answers-receiving tasks. Using this application, all students can answer several questions very fast and the teacher knows the answers immediately. This application also has the following advantages, it is not neccessary to use neither any software nor any extra electronic device, its only needs smartphones with connection to internet. This application also can facilitate the cooperative learning strategy more efficiently.[7]

---

[4]Ramya Gangaiamaran and Madumathi Pasupathi, " Review on Use of Mobile Apps for Language Learning," *International Journal of Applied Engineering Research*, 21 (2017), 11242-11243

[5]Mohammad Maslawati *et al*, "Socrative in Teaching Tenses: Indonesian Students and Lecturers' Perception," *Creative Education*, 10 (January, 2019), 142.

[6]*Op.cit*., Ramya Gangaimaran and Madumathi Pasupathi, 11247

[7]David Mendez Coca and Josip Slisko, "Software Socrative and Smartphones as Tools for Implementation of Basic Processes of Active Physics Learning in Classroom: An Initial Feasibility Study with Prospective Teachers," *European Journal of Physics Education*, Vol 4 (May, 2013), 18.

There are some previous research that study about the use of socrative application for classroom engagement. Based on journal from Laura Tirlea, Department of Psychological Sciences, Swinburne University of Technology. The title is "The Use of Socrative in Promoting Classroom Engagement: a Qualitative Investigation". She study about integrating socrative application into the statistics course changes the dynamic of the class and resulted in greater engagement, interaction and fun. Socrative application has a positive impact on students' engagement and interaction in class.[8] Therefore, it is different with this research. In this research, the researcher focuses on the use of socrative application for formative assessment in teaching vocabulary. Beside it, Journal from Sam M Dakka, Sheffield Hallam University in title "Using Socrative to Enhance in-Class Student Engagement and Collaboration" also study about how using socrative application to assess the performance and engagement of students are enhanced as compared to traditional or other blended teaching and learning process. This research showed that using this student paced assessment (socrative application) despite the lack of collaboration aspects designed into the experiment did enhance the performance of the students on semester 2 as compared to semester 1. In the other word, it can be said that socrative application can improve students vocabulary mastery and enhanced student engagement.[9]

Socrative application as a tool that be used for formative assessment process. It is hoped can increase students' motivation while formative assessment process and it also can increase students' vocabulary mastery.

Formative assessment is not a single event but an ongoing measurement and planned practice that lets teachers evaluate learning during instruction. Formative assessment also allows teachers to predict and make standardized judgements about student performance

PONOROGO

[8]Laura Tirlea *et al*, "The use of Socrative in Promoting Classroom Engagement: a Qualitative Investigation," *ICOTS*, 10 (2018), 4.

[9]Sam M Dakka, "Using Socrative to Enhance in-Class Student Engagement and Collaboration," *International Journal on Integrating Technology in Education (IJITE) Vol. 4*, (Sheffield: Sheffield Hallam University, 2015), 13-16

toward state and content standards.[10] In the other words, the practice of formative assessment gives teachers a clearer picture of students' learning progress.

Based on the researcher's preliminary study in SMA Muhammadiyah 1 Ponorogo on October, 24th 2019, the researcher found some students of XI IPA 4 had low motivation and feel uninterested in English teaching and learning especially in formative assessment process. They didn't give their best performance while doing the task from teacher. Because of their uninterested and low motivation while formative assessment, it can influenced to their achievement in vocabulary mastery. Almost 40% students of XI IPA 4 had limited vocabulary mastery. Whereas, SMA Muhammadiyah 1 Ponorogo was one of favorite school in Ponorogo and it was a school that had a good reputation and A grade acreditation. SMA Muhammadiyah 1 Ponorogo was also one of few school in Ponorogo that had billingual program.

Therefore, the researcher interested to conduct the research with the title **"The Effectiveness of Socrative Application for Formative Assessment in Teaching Vocabulary at SMA Muhammadiyah 1 Ponorogo"**

B. Limitation of the Study

In this study, the researcher gives limitation of the problem on :

1. Using socrative application for formative assessment in teaching vocabulary
2. The eleventh science grade SMA Muhammadiyah 1 Ponorogo in academic year 2019/2020

[10]Maria Montalvo, "Using Formative Assessment to Help English Language Learners," *ASCD Learn, Teach, Lead* (2012), 2.

C. Statement of the Problem

Based on background of the study above, the problem was formulated as:

1. Is there any significant different vocabulary mastery between students who used socrative application for formative assessment and who are not used socrative application for formative assessment?

D. Objective of the Study

The objective of the study:

1. Find out is there any significant difference vocabulary mastery between students who used socrative application for formative assessment and who are not used socrative application for formative assessment.

E. Significances of the Study

The significances of the study that is expected by researcher are:

1. Theoretically

   The finding of this study is expected can enrich the theory about the effectiveness of socrative application for formative assessment and teaching vocabulary.

2. Practically

   The result of this study is expected to be beneficial practically for:

   a. English Teacher

      The result of this study is expected to provide the English teachers of SMA Muhammadiyah 1 Ponorogo with the alternative media that can be used for formative assessment in teaching vocabulary.

   b. Students

PONOROGO

The result of this study is expected to give the students of SMA Muhammadiyah 1 Ponorogo a new experience in English learning. Especially using socrative application for formative assessment can increase students interesting.

c. Readers

This study is expected to give contribution to the readers, particularly the students of IAIN Ponorogo. By reading this research, it hopes will give them a new knowledge about strategies in English teaching and learning. So, it can open their mind and they can implement it someday.

F. Organization of the Study

The organization of the study divided into five chapters as follow:

The first chapter is introduction which contain of background of the study, limitation of the study, statement of the study, objective of the study and significances of the study and organization of the Study.

The second chapter is previous research findings, theoretical background, theoretical framework and hypothesis.

The third chapter is research method which contains of research design, population and sample, research instrument, data collection technique and data analysis technique.

The fourth chapter is research result which explains about research location, description, analysis of the data and the interpretation of the study.

The fifth chapter is closing which contains about the conclusion and suggestion.

IAIN PONOROGO

CHAPTER II

PREVIOUS RESEARCH FINDINGS, THEORETICAL BACKGROUND, THEORETICAL FRAMEWORK AND HYPOTHESIS

A. Previous Research Findings

Related to this study, the researcher needs to review previous study of similar topics in order to find out the similarities and differences between the previous studies and this study. The previous studies that used by the researcher are:

The first thesis was from Antonius Agus Wijaya, Language and Arts Education Department of Sanata Dharma University Yogyakarta. The title was "The Role of Digital Learning Facilitation: *Socrative app* to Engage Students in Learning English". The research problem from this study was to find what extent does the adoption of digital learning facilitation socrative application engage the students in learning English? This research used descriptive qualitative study that was conducted at Budi Utama High School Yogyakarta. The result from this study was Socrative application could engage the students in learning English inside the classroom. Specifically, socrative application really became the solution to the problem based on the engagement to get involved inside the classroom. In addition, the students were also showing the enjoyment when they joining the learning activities and interesting during the learning process.[11]

The similarity of previous research and this research is about using socrative application as a media for learning English. The difference between this previous research and this research is about the focus, the previous research focus on learning English in general, while this research especially focuses on teaching vocabulary.

The second relevant study was from Hinda Jirdeh Hussein, Faculty of General Studies, Higher Colleges of Technology (AAWC), Al Ain, United Arab Emirates. The title of this

[11]Antonius Agus Wijaya, "The Role of Digital Learning Facilitation: Socrative app to Engage Students in Learning English," (Thesis, Sanata Dharma University, Yogyakarta, 2017), 51.

journal was "The Impact of using Socrative based Formative Assessment to Enhance Students Achievement in a nutrition course: A Digital Forward Assessment". The research problem from this study was what is the impact of using Socrative application as a tool for formative assessment on EFL tertiary college students' conceptual understanding of a nutrition course? This study used quantitative research design. Then the result of this research showed a significant improvement in the experimental group's posttest, which is an impact in the implementation of socrative as formative assessment in enhancing student achievement.[12]

The similarity of previous research and this research is about using socrative application as a media for formative assessment. The difference between this previous research and this research is in the respondents. In this previous research the respondents are students' bachelor degree at a tertiary college, while in this research the respondents are students' senior high school of SMA Muhammadiyah 1 Ponorogo.

The third previous research was from Ismail Elmahdi, Abdulghani Al-Hattami, and Hala Fawzi, Bahrain Teachers Collage, University of Bahrain. The title was "Using Technology for Formative Assessment to Improve Students' Learning". The research problem from this study was to investigate does the use of Plickers technology based formative assessment tool effectiveness in improving students' learning? This study used descriptive qualitative mixed method. Then the result of this research showed that usage Plickers technology for formative assessment help the learning process as it improves students' participation, saves the learning time, and creates fun and exciting learning environment.[13]

PONOROGO

[12]Hinda Jirdeh Husssein, "The Impact of Using Socrative based Formative Assessment to Enhance Student Achievement in a Nutrition Course: a Digital Forward Assessment," *Journal for Researching Education Practice and Theory (JREPT)*, No 1 Vol 2 (2019), 48-52.

[13]Ismail Ehmadi, Abdulghani Al-Hattami, Hala Fawzi, "Using Technology for Formative Assessment to Improve Students' Learning," The Turkish Online Journal of Education Technology (TOJET), Vol 17 (April 2018), 182-187.

The similarity of previous research and this research is about using technology for formative assessment. The difference between this previous research and this research is in the method. In this previous research method is descriptive qualitative mixed method, while in this research, the method is quantitative method.

B. Theoretical Background

1. Teaching Vocabulary

a. Definition of Teaching Vocabulary

According to Douglas H Brown, teaching is a complex process. It is showing new information and helping someone to learn or to carry out something, giving instruction, guiding in learn about knowledge and causing to know and to understand.[14] In other words, teaching is process of transfer knowledge from teacher to students in teaching and learning process.

According to Evelyn Hatch and Cheryl Brown, vocabulary refers to a set of words for particular language or a list of phrase that speaker of language use.[15] Jack C Richard and Willy A Renandya state that vocabulary is a core component of language proficiency and provides much of the basic for how well learners speak, listen, read, and write.[16] From this statement, it can be concluded that vocabulary is a set of word that as a core component of language. Without vocabulary, a learner can't understand what they learn about and also can't communicate with others using English.

From the definition above, it can be defined that teaching vocabulary is conveying new information into the already existing system of the mental lexicon.

PONOROGO

[14]Douglas H Brown, *Principles of Language Learning and Teaching*, (New Jersey: Prentice Hall, 1994), 7.

[15]Evelyn Hatch and Cheryl Brown, *Vocabulary, Semantics, and Language Education*, (New York: Cambridge University Press, 1997), 1.

[16]Jack C Richard and Willy A Renandya, *Methodology in Language Teaching*, (UK: Cambridge University Press, 2002), 255.

Jeremy harmer states that teaching vocabulary is a part of the language teaching.[17] It means that teaching vocabulary isn't just presenting new word to the students but more than it, teaching vocabulary also must use suitable technique which make the students enjoy and active in learning process.

According to Jeremy Harmer, there are some items that teachers must give attention to teaching vocabulary, they are:[18]

1) Word meaning

A word meaning can be defined as a relationship between one word to others. This relationship include the sameness and opposite meaning in two or more words. And also it is should know the denotation and connotation of word in order to know the negative or positive meanings that occur in the word.

a) Synonym

Synonym defined with sameness of meaning in some word or same meaning expressed by more than one word.

b) Antonym

Antonym defined with oppositeness of meaning. It means one word has the opposite meaning with others.

c) Denotation

A word called denotation meaning because the meaning refers to a certain referent, concept, or idea from reference.

d) Connotation

Connotation is more complicated than denotation. Connotation is feeling and emotion that happen inside a word. In other words, connotation is the feeling and emotion of word related with a meaning.

[17]Jeremy Harmer, *The Practice of English Language Teaching Third Edition*, (Longman, 1997), 23.
[18]Jeremy Harmer, *The Practice of English Language Teaching Fourth Edition*, (Longman, 2001), 16-20.

2) Word Use

a) Idiom

Idiom is set of words or phrases that describes a feeling or ideas it suggest. It uses to deliver the expression and interpretation to explain the feelings about things in a way that creates available images. Idioms are unoriginal metaphorical use of word that common experience and accepted.

b) Collocation

Collocation is word combinations that occur because has been custom and practice have come to be seen as normal and acceptable. Because of it, some words can live together and others cannot.

3) Grammar

a) Noun

b) Verb

c) Adjective

d) Adverb

b. Technique of Teaching Vocabulary

According to Jeremy Harmer, there are many technique of teaching vocabulary. They are:[19]

1) Demonstration

The teacher demonstrates the vocabulary by offering the students there in action to practice it.

2) Explanation

The teacher explains the new vocabulay using textbook, whiteboard or projector.

3) Discovery

[19]Jeremy Harmer, *The Practice of English Language Teaching Fourth Edition*, (Longman, 2001), 155.

The students can understand new vocabulary form by discovering them from the word itself or by looking for at grammatical rules.

4) Check Question

The teacher can give a question to check whether the students have understood the meaning of word and use it in the text or paragraph or not yet.

5) Presentation

The teacher shows the things and present the words to students, for example, picture, video, and also use mime, action and gesture to present the words.

2. Assessment

a. Definition of Assessment

Assessment refers to the process of seeking and interpreting result for use by students and their teachers to determine how the students are in their learning, whether they can get the teacher's point.[20]

There are four aspects which are fundamental to language classroom assessment:[21]

1) Assessment events

It can support teachers to know whether their instruction is successful delivered to the students or any group of students who may need additional support.

2) Assessment tools

It can support student learning when the tools provide students understod about what is important of learning and make them to do for good work, and when assessment matches with the teacher's instruction.

3) Assessment processes

[20] Bachman, *Introduction to Language Classroom Assessment*, (London:1999), 1.
[21] *Ibid*., 2.

It can support students in that students feel enjoy with the teacher as bestfriend to their education. When the teacher gives them a feedback, it can help students to focus and better understand the teacher's explanation.

4) Assessment decision

The result of assessment can support students when grades accurately reflect what students learn. It can give evaluation about students' weakness and what is must they do to get better result.

b. Type of Assessment

1) Summative assessment

a) Definition of summative assessment

Summative assessment aims to measure or summarize how the student understanding and it is usually done at the end of a course. It implies how well the student has achieved objectives, but it does not necessarily factor the way to future progress. Summative assessment tasks are used specially for progression and certification purposes, as well as a representative measure of overall learning.[22] The examples of summative assessment are final exams in a course and general proficiency exams.[23]

Types of summative assessment

1) Midterm and final examination

Midterm and final examination is created to enable management to gain an independent assessment of the progress so far when the course period. It is also able to know the level of course success and identify lessons learnt for future actions.

PONOROGO

[22]Geoffrey Crisp, *Teacher's Handbook on e-Assessment*, (San Francisco: Creative Common, 2001), 6.
[23]*Op.cit.*, H Douglas Brown, 6-7.

2) Portfolios

A portfolio is a purposeful collection of students' work that demonstrates their efforts, progress, and achievements in a given course.

3) Journals

A journal is a students' thoughts, feelings, reactions, assessments, ideas, or progress toward goals that usually is written with little attention to structure, form, or correctness.[24]

2) Formative assessment

a) Definition of formative assessment

Evaluating students is the process of forming their competencies and skills with the aim of assisting them to continue the progress. The key of evaluating students is internalization feedback from students to the teacher on performance of learning.[25]

According to Hinda Jirdeh Hussein, formative assessment to an assessment for learning refers a continuous feedback and feed forward with a specific goal of enhancing teaching as well as learning. Formative assessment is an important way in which teachers can help students in understanding and ways to engage the learner into the concepts.[26]

Formative assessment is usually use to measure about enhancing learning, how students' enhancements are seen in subsequent formative task, however students often view their performance in summative assessment as a measure of how much they have learnt in a course.[27]

PONOROGO

[24] *Op.cit*., Douglas H Brown, 256-260.
[25] *Ibid*, 6.
[26] *Op.cit*., Hinda Jirdeh Hussein, 37.
[27] *Op.cit*., Geoffrey Crisp, 6.

b) Types of formative assessment

1) Multiple choice

Multiple choice tests are a popular way of testing in that they are easy to score and easy to design. It contains a question which have more than two choice of answers, usually there are a, b, c, d and e.[28]

2) True-false

True-false items are relatively easy to construct because there is no need to construct response alternatives. It is essential that the statement can only be classified as true or false if the students really have knowledge or understanding of the content.[29]

3) Matching items

Matching items are efficient because several questions are implicitly integrated into one item, and since the format does not entail construction of distracters, matching items are easier to construct than common multiple choice items.[30]

c. E-assessment

E-assessment includes the use of digital devices to aid in the delivery, support, and reporting of students assessment tasks, responses, grades or feedback. E-assessment can be undertaken with many devices, such as computers, laptops, and smart mobile phone with internet connection.[31]

E-assessment can be used to evaluate many different capabilities and competencies of students. Almost all of tasks can be evaluated electronically, it is only a few tasks that might not be suitable for completing and recording

PONOROGO

[28]Scott Thornbury, *How to Teach Vocabulary*, (Edinburg: Longman Pearson, 2007), 129-132.

[29]Jaap Scheerens, Cees Glas and Sally M Thomas., *Educational Evaluation, Assessment, and Monitoring: A Systemic Approach*, (Netherlands: Swets & Zeitlinger, 2003), 98.

[30]*Ibid.*, 100.

[31]*Op.cit*., Geoffrey Crisp, 5.

electronically, however the number of such tasks is rapidly diminishing as long as the development of technology.

There are many advantages of e-assessment, they are:[32]

1) Efficiency
   a) Timeliness
   b) Flexible delivery
   c) Automatic processing responses
   d) Effective storage results and grades
2) Effectiveness
   a) Immediate feedback
   b) Analysis of question validity
   c) New question types
3) Authenticity
   a) Access to people and resources
   b) Can be designed to stimulate real world
   c) Can set complex tasks
4) Engagement
   a) Multimodal formats
   b) Can use virtual worlds
   c) Can use self and peer review

3. Mobile Learning

a. Definition of Mobile Learning

The term of mobile defined as the ability to move freely and easily from one place to another. Mobile learning refers to the implementation of ability a device to

[32] *Ibid.*, 7.

move freely and easily in used to learning process.The mobile technology has a role to increase English teaching and learning process. [33]

Mobile learning can be defined as electronical media devices such as the smartphone, computer, laptops that used in language learning. Mobile learning can increases the mobility of learners, the learners can learn everytime and everywhere. Mobile learning can be divided into:[34]

a) Mobility of technology

The mobility of technology refers to ability of technology to move freely and easily like mobile devices with Wi-Fi capacities and Wireless Application Protocol (WAP) that deliver information and learning materials through the internet.

b) Mobility of learner

Mobile learning can enhance the mobility of learners. With portable and personal mobile devices, the learners could be engaged in more flexible, accessible and customized learning practices without constraint on places.

c) Mobility of learning

Mobile learning also enhances the mobility of learning process without place and time constraint because teacher and students no needed to face to face in the same times.

b. Mobile-Assisted Language Learning (MALL)

Mobile-assisted language learning is the combination of the both Mobile-Learning and Computer-assisted language learning (CALL). CALL is a term used for the collection of technologies aimed at enhancing creativity and collaboration through social networking. So, it can be defined that Mobile-Assisted Language

[33]El-Hussein and Cronje, "Defining Mobile Learning in the Higher Education Landscape," *Educational Technology &Society*, 13 (2010), 12.

[34]*Op.cit*., Ramya Gangaimaran & Madhumathi Pasupathi, 11243.

Learning (MALL) is an applying mobile devices in used to language learning that aimed to enhancing learning process.[35]

Mobile learning application software can be classified as follows:[36]

1) Primary learner

Primary learners include kids in the age group 3-10 years. Kids of this age group learn the English beginning with alphabets, listening to animated songs and stories and learning the different of objects, colors, shapes, name of fruits, vegetables, animals and more that can enhance their vocabulary acquisition. Application which suits for primary learners, such as Speech with Milo Apps, Phonetics Focus, MindSnacks, Starfall ABCs, etc.

2) Secondary Learner

Students of age group 12-17 belong to the secondary level of learners. The use of mobile devices aimed to attract students' motivation and interesting to more creative. The language skills that will students acquired like writing, reading, speaking and listening. On the other hand, they will learn vocabulary and meanings, grammar, pronunciation, spellings and more on the part of language acquisition. The suitable apps for secondary learners, such as Rosetta Stone, FluentU, Memrise, Open Language, Busuu, Duolingo, etc.

3) Tertiary Learner

Tertiary level learners include college students and adults group of learners. The development of Apps of learning English and the popularization of mobile devices among college students give interested in the learning benefits that apps on mobile devices bring. MALL not only can enhance students' English ability but also increase students' learning motivation. So, it is helpful and efficient for college students using mobile devices to learn English. The suitable apps for

[35]*Ibid*., 11243.
[36]*Ibid*., 11243-11248.

tertiary learners, such as Sounds Right, Wordbook XL-English Dictionary & Thesaurus, Speech Tutor, English Podcast for Learners, Voxy, etc.

c. Socrative Application

1) Definition socrative application

Socrative application is one of the popular student online response systems that empower teacher to engage their students in classroom activities. Socrative provides a platform for teacher to generate quiz questions, see the students' achievement or scores, and monitor their students' responses and progress in real time. It facilitates learning and allows teachers to gain feedback to improve their teaching.[37]

Socrative application is a quiz-based, formative assessment tool with multiple features that can enrich teaching and learning. Teachers can design quizzes, space races (picture being at the county fair and squirting water at a target to move a horse across the field.. just like that but for quizzes), exit tickets, and more to collect and analyze student data in real-time to make on the spot teaching changes and improve student learning.[38]

2) How to use socrative application?

a) Steps to Create, Import and Administer a Quiz in Socrative Application:[39]

1) Press "Manage Quizzes" and then "Create Quiz"
2) Make a question by press "Multiple Choice, True-False or Short Answer"
3) Write the question, the answer options, checkmark the correct answers, and then give an short explanation for the question.
4) Go back to the "Main Menu" and press "Quiz-Based Activities".
5) Select a saved quiz from the drop-down menu

[37]*Op.cit,*. Mohammad Maslawati *et al*, 142.

[38]Torrey Trust, *Online Tools for Teaching and Learning*, (Online), 2019, https://blogs.umass.edu/onlinetools/assessment-centere-tools/socrative/9 accessed on 31 December 2019.

[39]James Brandon Decker, "A Second Look at Mobile Technology in the Classroom: Don't Ban it, Use it!", *The CATESOL Journal*, 24 (2013), 324.

6) While the quiz begins, the students' devices will appear the question and answer choices for each question. The teacher's device will display the "Live Result"

7) Press "End Activity" after finished it and the result can be obtained by email.

b) Steps of applied Socrative application for formative assessment in language learning can be ilustrated by these description:[40]

1) Teacher and students require internet connectable devices like laptops, computers, smartphones, tablets, etc and need to create an accont from www.socrative.com or install the application.

2) Teacher and students access socrative through separate entryways (socrative for teacher and socrative for student). Teacher create an account from socrative to get room name.

3) Then, teacher can start to create quizzes (short answer, multiple choice or true false), give name for the quizzes and import them into their room for future usage.

4) While students enter the system to log in, they must enter the room name of the teacher.

5) Students can start to answer the questions and the teacher can monitor their progress via live results table or paced-students navigation.

6) After the students finished the question and submit it, the teacher can get the result by email.

3) Advantage and Disadvantage of Socrative Application

[40]Ayhan Kaya & Nuri Balta, "Taking Advantages of Technologies: Using the Socrative in English Language Teaching Classes," *International Journal of Social Sciences & Educational Studies*, Vol.2(March, 2016), 5.

a) Advantage of Socrative application

1) Appearance: without contains advertising. The display menus are easy to see, with the text set apart in light-colored boxes.
2) Daily setup: none required a lot of work and cost.
3) Easy to use: simple and can easy to use for students and teachers with a little technical skills.
4) Educational benefits: quick peer reviews and a simple but effective three-question exit poll are included.
5) Quiz format and Grading: automatically graded quiz questions can be multiple-choice or true-false, short answer question are also available.
6) Registration: for teacher registration just use email and takes 1 minute. Besides for students there is no registration.
7) Teacher control: Teacher can also see the live progress of their students during quizzes.

b) Disadvantage of socrative application

1) The biggest inconvenience is that teachers must rewrite the question and the answers to the application. It can't directly be copying from word document. Writing multiple choice answers on the board is counterproductive for those wanting to save time.
2) Socrative lacks the flexibility to modify the app to suit specific needs; however, this also makes the app simpler to use for those unfamiliar with such technology.[41]

C. Theoretical Framework

[41] *Op.cit*., James Brandon Decker, 318-319.

Theoretical framework is a concept in the thesis about how theorist can be related with the factors which are identified as the important problems.

To measure students' vocabulary mastery, English teachers do an assessment in the end of English teaching learning process. However, students usually don't interest while formative assessment process and it is influenced with their achievement in vocabulary mastery. One of many suitable solution that can be choosen to increase students' interesting while formative assessment is by using mobile learning.

According to previous research, mobile learning can increases the mobility of learners fast and easily. With portable and personal mobile devices, students can be engaged in more flexible, accessible and personalized learning practices without constraint on places. From the reason, the researcher used socrative application as a media for formative assessment.

This research uses quantitative research that consist of two variables:

Variable (X): Effectiveness of Socrative Application for formative assessment

Variable (Y): Teaching Vocabulary

The researcher assumes that socrative application is effective for formative assessment in teaching vocabulary at SMA Muhammadiyah 1 Ponorogo.

D. Hypothesis

Hypothesis is prediction about the study based on theory or logical common sense.[42]

The hypothesis is:

H_1 : There is any significant difference score in vocabulary mastery between students who used socrative application for formative assessment and who doesn't use socrative application for formative assessment.

PONOROGO

[42] Mohammad Adnan Latif, *Research Methods on Language Learning: An Introduction*, (Malang: University of Malang Press, 2012), 52.

H_0 : There is no any significant difference score in vocabulary mastery between students who used socrative application for formative assessment and who doesn't use socrative application for formative assessment.

CHAPTER III

RESEARCH METHOD

A. Research Design

There are three kinds of research approach in the research. They are qualitative, quantitative and classroom action research (CAR). In this research, the researcher used quantitative research approach. According to John W Creswell, quantitative research was a research approach that was used to assess the objective theories by examining the relationship among variables. Each variable in this research would be measured on instruments, so that numbered data can be analyzed using statistical procedures.[43]

In this research, the researcher applied experimental research method. Experimental research was traditional method to conducting quantitative research. Experimental research was a research that used experiment as a way to find the data and balancing of several features including validity, practicality and cost.[44] Experimental research was choosen because it was the best quantitative design to determine probable cause and effect.[45]

Because of this research used experimental research method, so the best research design that can be used was quasi-Experimental research design. Quasi-Experimental research design was signed by the researcher assigned randomly different treatments to both different classes.[46] In this research, the researcher observed the ability population of the research, and then selected two classes out of all the existing classes which are of equivalent level. Next, the researcher randomly selected one of the classes into experimental group and the other one into the control group, then given the experimental treatment to the experimental group and the control treatment to the control group. After that, assessed the results of the

[43]John W Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approach*, (USA: SAGE Publications, 2009), 4.

[44]Howard J Seltman, *Experimental Design and Analysis*, (Carnegie: Carnegie Mellon University, 2018), 3.

[45]John W Creswell, *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*, (Boston: Peason Education Inc., 2012), 295.

[46]Mohammad Adnan Latief, Research Methods on Language Learning: An Introduction, (Malang: University of Malang Press, 2012), 95.

treatments of both group, and the last computed the difference of average score between the experimental group and control group.

The process of this research included pre-test, experimental treatment and post-test. Firstly, pre-test was given before experimental treatment to measure students' vocabulary mastery. For experimental treatment, the researcher applied socrative application for formative assessment in the experimental class and used paper based evaluation in the control class.

The procedures of applying socrative application for formative assessment in the classroom are:

1. Teacher and students require internet connectable devices like laptops, computers, smartphones, tablets, etc and need to create an accont from www.socrative.com or install the application.
2. Teacher and students access socrative through separate entryways (socrative for teacher and socrative for student). Teacher create an account from socrative to get room name.
3. Then, teacher can start to create quizzes (short answer, multiple choice or true false), give name for the quizzes and import them into their room for future usage.
4. While students enter the system to log in, they must enter the room name of the teacher.
5. Students can start to answer the questions and the teacher can monitor their progress via live results table or paced-students navigation.
6. After the students finished the question and submit it, the teacher can get the result by email.

Post-test was given after experimental treatment both of clasess to know students' vocabulary mastery progress. And the last, the researcher compared the result pre-test and post-test between both of clasess.

Table 3.1 Design of the research

Group	Pre-test	Treatment	Post-test
Experimental (E)	O_1	X	O_2
Control (C)	O_3	-	O_4

E : Experimental Group

C : Control Group

X : Treatment (Socrative Application)

O_1 : Pre-test Experimental Group

O_2 : Post-test Experimental Group

O_3 : Pre-test Control Group

O_4 : Post-test Control Group

Based on explanation above, this research used two classes of eleventh science grade of SMA Muhammadiyah 1 Ponorogo. The first, the researcher gave pretest to the both of classes, the second the researcher applied socrative application for formative assessment to the experimental class and paper based evaluation to the control class and the last the researcher gave posttest. The pretest was given before treatment to know students' vocabulary mastery both of classes and the posttest was given after treatment to measure the effect of the treatment.

PONOROGO

B. Population and Sample

1. Population

Before conducting observation, the researcher needs to determine the population. Population in educational research was defined as all members of a real or hypothetical set of people or objects which researcher wish to generalize the result of the research.[47]

The populations of this research were students of eleventh science grade of SMA Muhammadiyah 1 Ponorogo. The eleventh science grade of SMA Muhammadiyah 1 Ponorogo consisted of 4 classes: XI IPA 1, XI IPA 2, XI IPA 3 and XI IPA 4 in academic year 2019/2020. The totally numbers of this population were 115 students.

2. Sample

Sample was a subgroup of the population that the researcher assumsed for generalizing the target population. In the other word, sample was a small part of the population that was representing the whole subject of the research.[48]

The members of eleventh science grade students of SMA Muhammadiyah 1 Ponoogo in academic year 2019/2020 were 115 students and divided into 4 classes. So, the researcher needed to choose the appropriate sample with the research design. Finally, the researcher used cluster random sampling to determine the research samples. Cluster random sampling was the random selection of groups that already exists.[49] The researcher randomly chose two classes from 4 classes that already exist in eleventh science grade of SMA Muhammadiyah 1 Ponorogo.

From the sampling technique above, the researcher choosed class XI IPA 3 as a control class and XI IPA 4 as an experimental class. XI IPA 3 consisted of 31 students, while XI IPA4 consisted of 30 students. The researcher chose XI IPA 4 as an experimental class because it was one of the bilingual class in SMA Muhammadiyah 1 Ponorogo and one of class that consisted of students who have same level in English

[47] *Op.cit.*, Mohammad Adnan Latief 181.
[48] *Op.cit.*, John W Creswell, 142.
[49] *Op.cit.*, Mohammad Adnan Latief, 185.

ability. While XI IPA 3 was choosen as a control class because it was one of science eleventh grade class that have similar level ability with XI IPA 4.

C. Instrument of Data Collection

Instrument was tool that used to assist the researcher in gathering data. In this research, researcher used instrument of test pre-test and post-test as instrument of data collection.

The test was used to analyze weather any significant difference about students' score in vocabulary mastery before and after using socrative application for formative assessment at SMA Muhammadiyah 1 Ponorogo.

The data of this research were the result of test. The data from test results of vocabulary mastery before using socrative application for formative assessment and test results of vocabulary mastery after using socrative application.

PONOROGO

Table 3.2 Instrument of research

Research title	Variable	Indicator	Subject	Technique
The Effectiveness of Using Socrative Application for Formative Assessment in Teaching Vocabulary at SMA Muhammadiyah 1 Ponorogo	Socrative Application (X)	1. Teacher and students require internet connectable devices like laptops, computers, smartphones, tablets, etc and need to create an accont from www.socrative.com or install the application. 2. Teacher and students access socrative through separate entryways (socrative for teacher and socrative for student). Teacher create an account from socrative to get room name. 3. Then, teacher can start to create quizzes (short answer, multiple choice or true false), give name for the quizzes	Eleventh IPA1 and elevent IPA4 grade student	Objective test. There 2 kind of types of question : A. multiple choice. It consists of 15 questions. B. true-false. It consists of 15 questions.

PONOROGO

		and import them into their room for future usage. 4. While students enter the system to log in, they must enter the room name of the teacher. 5. Students can start to answer the questions and the teacher can monitor their progress via live results table or paced-students navigation. 6. After the students finished the question and submit it, the teacher can get the result by email.		
	Vocabulary (Y)	According to Harmer, there are some aspects that have to be discussed in vocabulary : 1. word meaning		1. Synonym: A1, A2, A3, A14, B1, B2, and B3. 2. Antonym:

PONOROGO

		a. synonym b. antonym 2. grammar of word a. noun b. verb c. adjective d. adverb		A4, A13, B4 and B5. 3. Noun: A6, A7, A8, A12 and B12. 4. Verb: A10, A11, B10 and B15. 5. Adjective: A9, A15, B6, B7, B13 and B14. 6. Adverb: A5, B8, B9 and B11.

D. Data Collection Technique

1. Test

Test was method of measuring an individual ability, understanding or performance in the certain area. It means an instrument or a set of techniques, procedures, or items that requires performance on the part of the test-takers to get a good results.[50]

In this research, the researcher used a test which has been prepared before. It is used to find out the effect of using socrative application for formative assessment. The test consists of 30 items (15 items for multiple choices and 15 items for true-false).

[50]Douglas H Brown, *Principles of Language Learning and Teaching Fifth Edition*, (San Francisco: Pearson Education, 2007), 3.

E. Data Analysis Technique

1. Pre-Research

a) Validity

Validity was the important criteria of instrument to show the degree in which it was supposed to measure. In other word, validity was how the researcher measure the instrument whether valid or not to reflect true differences among those being tested.[51] In this research, to determine the validity of instrument the researcher used formula Karl Pearson product moment.

To find validity of instrument, the researcher need to comparing r_{table} and r_{count}. The researcher used students XI IPA 1 of SMA Muhammadiyah 1 Ponorogo as a sample of validity test. Firstly, the researcher searched the number of sample in r_{table} in 5%. The number of sample of XI IPA1 students was 19 and the significance of r_{table} is 0,456. The value of item to be said valid if $r_{count} > r_{table}$. In this research, the item said to be valid if the $r_{count} >$ 0,456.

The researcher used SPSS 23 for windows to check the validity of instrument, because it is probably the most common statistical data analysis software package used in educational research.[52] Based on the test calculation of item validity showed that 4 questions items were invalid (1, 2, 4 and 30) and 24 question items were valid. The result of validity instrument above can be concluded in the table as follow:

Table 3.3 the result of validity calculation

Number			

[51]C.R. Kothari, *Research Methodology: Methods and Techniques (second revision edition*), (New Delhi: New Age Publisher, 2004), 73.

[52]Daniel Mujis, *Doing Quantitative Research in Education with SPSS*, (California: Sage Publication, 2004), 85.

of Questions	r_{count}	r_{table}	Notes
1	0,319	0,456	Invalid
2	0,399	0,456	Invalid
3	0,567	0,456	Valid
4	0,444	0,456	Invalid
5	0,725	0,456	Valid
6	0,584	0,456	Valid
7	0,553	0,456	Valid
8	0,688	0,456	Valid
9	0,605	0,456	Valid
10	0,565	0,456	Valid
11	0,628	0,456	Valid
12	0,593	0,456	Valid
13	0,609	0,456	Valid
14	0,608	0,456	Valid
15	0,614	0,456	Valid
16	0,617	0,456	Valid
17	0,593	0,456	Valid
18	0,614	0,456	Valid
19	0,582	0,456	Valid
20	0,635	0,456	Valid
21	0,612	0,456	Valid
22	0,606	0,456	Valid
23	0,622	0,456	Valid
24	0,596	0,456	Valid
25	0,613	0,456	Valid
26	0,593	0,456	Valid
27	0,611	0,456	Valid
28	0,617	0,456	Valid
29	0,587	0,456	Valid
30	0,324	0,456	Invalid

b) Reliability

The test of reliability was another important test of instrument measurement. A measuring instrument was reliable if it indicated consistent results. Reliable measuring instrument made contribution to validity, but a reliable instrument doesn't to be a valid instrument.[53]. The reliability instrument would be measure with SPSS 23 using Cronbach Alpha coefficient to analyze the data.[54]

The measuring instrument to be said reliable if alpha > r_{table}, but if alpha < r_{table} the instrument was unreliable. The sample of XI IPA1 students was 19 and the significance the value of r_{table} is 0,456. The result of calculation reliability instrument is as follow:

Table 3.4 The result of reliability using SPSS 23

Case Processing Summary

	N	%
Cases Valid	19	100,0
Excluded[a]	0	,0
Total	19	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items

[53]*Ibid*., 74.
[54]*Op.cit*., Daniel Mujis, 85.

,534	31

Table 3.5 Test item reliability

r_{alpha}	r_{table}	Notes
0,543	0,456	Reliable

2. Analysis Result Research

a) Normality test

Normality test was used to determine whether the datas have normal distribution or not and also to compute how the random variable was to be normally distributed. The normality test can be analyzed using SPSS 23 application.[55]

b) Homogeneity test

Homogeneity referred to the similarity variance of every group of classes, so the researcher will face group of classes with the equal comprehension in the beginning.[56] Homogeneity test in experimental research was used to know whether control group and experimental group that are taken from population have same variance or not.

c) T-test

The last step of analyzing data after testing the normality and homogeneity test was T-test. T-test was used to determine whether the mean score both experimental and control class were significant different or not. In this section, the researcher

[55]Asghar Ghasemi, *Normality Test for Statistical Analysis: A guide for non Statistican, vol. 2, No.10*, 2012, 487.

[56]Muhammad Ado Rizqi Mardhaditya, "The Effectiveness of Jeopardy Game in Teaching Vocabulary in Seventh Grade Students at SMPN 1 Geger Academic Year 2017/2018," (Thesis, IAIN, Ponorogo, 2018), 43.

PONOROGO

analyzed the data by comparing between experimental class and control class of pre-test and post-test score. To comparing the data score, the researcher used SPSS 23 for windows.

CHAPTER IV

RESEARCH RESULT

A. Research Setting

1. Profile of SMA Muhammadiyah 1 Ponorogo

Table 4.1 SMA Muhammadiyah 1 Ponorogo Profile

1.	Name of School	: SMA MUHAMMADIYAH 1 PONOROGO
	NSS / NPSN	: 302051117002 / 20510139
	Status	: ~~Negeri~~/Swasta
	Acreditatation Status Acreditation Value	: Accreditation A : 91
2.	Address of School	
	Street District Sub-district City Province	: Batoro Katong Street : Nologaten : Ponorogo : Kabupaten Ponorogo : Jawa Timur
	Code Post	: 63411
	Phone	: (0352) 481521
	Fax	: (0352) 481521
	E-mail	: muh1po_first@yahoo.co.id
3.	Identity of Principal	
	Full Name	: Muh Kholil, M.Pd.I
	NIP Graduated	: - : S-2 (Pasca Sarjana)
	Department	: Pendidikan Agama Islam
	No HP/Tlp.Home	: 085235058215 / -

2. Historical Background of SMA Muhammadiyah 1 Ponorogo

SMA Muhammadiyah 1 Ponorogo was established on August 1, 1963. Among the names of founders of SMA Muhammadiyah 1 Ponorogo were, Mr. Muhadi Abdul Salam, Mr. Mahmud Sujuthi, Mr. Qomar Abdur Rojak, Mr. Slamet Syarif and Mr. Soemarsono. The location of SMA Muhammadiyah 1 Ponorogo is on an area of 500 m^2, precisely on Batoro Katong street No. 1 Ponorogo. In this location, SD, SMP and Religious Teacher Education (PGA) Muhammadiyah have also been established, so that the location is often referred to as the Muhammadiyah College Complex.

The first headmaster of SMA Muhammadiyah 1 Ponorogo was Mr. Soemarsono. Definitively through the SK of the Chairman of the Muhammadiyah region of East Java, Education and Culture Assembly Number: E.2/215-S.K./1997.Mr.Soemarsono led SMA Muhammadiyah 1 Ponorogo from August 1, 1963 to January 17, 1997.

The development of school shows an increase in the number of students. A considerable number of students had been achieved in the 1988-1989 school year as many as 1.092 students. To improve management, SMA Muhammadiyah 1 Ponorogo actively participates in the accreditation process of private high school level. In 1984, SMA Muhammadiyah 1 Ponorogo was ACKNOWLEDGED from 22 private high schools in Ponorogo. By this status, SMA Muhammadiyah 1 Ponorogo can have the right to conduct its own exams. Furthermore, in 1985 SMA Muhammadiyah 1 Ponorogo participated in the accreditation that organized by the Regional Office of the Ministry of Education and Culture of East Java with the results RECOGNIZED.

In 1994, SMA Muhammadiyah 1 Ponorogo was re-accredited by the Regional Office of the Ministry of Education and Culture with the results TAMED. National level achievements have been inscribed by students, such as in 1990 won 1st place in the Youth Scientific Writing Contest. In addition, regional level achievements were also achieved, including East Java Paskibraka in 1998, 1990, champion of football, volleyball

and walking. In every event that organized by the government, SMA Muhammadiyah 1 Ponorogo always actively participates in it, both academic and non-academic.

Subsequently the Principal Substitution was conducted for the 2016-2020 Period, and the selection of School Principals for the 2016-2020 period was carried out. From the results of the Selection Process carried out by Ponorogo Muhammadiyah Regional Leaders and proposed to the Basic and Secondary Education Board of Muhammadiyah Regional Leaders in East Java, Muh. Kholil, M.Pd.I as the new Principal based on the Decree of the Regional Leadership of Muhammadiyah East Java Number: 76 / KEP / II.0 / D / 2016.

Some institutional achievements of SMA Muhammadiyah 1 Ponorogo that can be noted are:

1) As the 2013 Curriculum implementing school.
2) As the 2014 Adiwiyata school.
3) As the Muhammadiyah Superior School in East Java ranked 2.

3. Vision, Mission and Purpose of SMA Muhammadiyah 1 Ponorogo

a. Vision

The realization of Islamic School that excellence, grow up and cultured in the environment.

b. Mission

1) Providing educational services based on Islamic religious values.
2) Promoting superior learning through methods that are innovative, interactive, fun, challenging, and motivating students.
3) Instilling the value of progress through a culture of clean living and environmental preservation.
4) Maximizing school's resources through various activities to prevent environmental pollution and damage.

c. Purpose

1) Realizing graduates (students) who expert in the field of Islamic religion.
2) Creating creative and innovative teachers and students in academic and non-academic fields.
3) Creating a habit of clean, caring and love the environment.
4) Making school being a learning of park.

4. The Condition of Teachers and Students in SMA Muhammadiyah 1 Ponorogo

a. The Condition of Teachers

SMA Muhammadiyah 1 Ponorogo has 49 teachers including 22 male and 27 female. All the teachers at SMA Muhammadiyah 1 Ponorogo were at least bachelor graduated and some of them were under-graduated. The condition of teacher in SMA Muhammadiyah 1 Ponorogo can be seen in table below.

Table 4.2

Condition of Teacher in SMA Muhammadiyah 1 Ponorogo

No	Name	Graduated – Department	Subjects
1	Muh. Kholil, M.Pd.I	S–2, PAI	Al–Islam
2	Dra. Peni Sulistyaningsih	S–1, Mathematic	Mathematic
3	Yayuk Kristanti, S.Pd	S–1, BK	BP/BK
4	Drs. Ramli, MA	S–2, Islamic study	Arabic
5	Dra. Dian Aksanti, M.Pd	S–2, Indonesian	Indonesian
6	Drs. Bambang Suprijadi S, M.Pd	S–2, Geograph	Historical/Geograph
7	Dra. Susminingsih, M.A	S.2, Islamic Study	P A I

8	Drh.Moch. Sachrur Rochman	S–1, animal doctor	Biology
9	Wahyu Imam Rahmadi, S.Pd,MM	S–1, Accountant	Economic/PDK
10	Dra. Fien Fardiani, M.Si	S–2, Sosiology	Sosiology
11	Anik Yulaika, M.Pd	S–2, English	English
12	Joko Subagyo, S.Pd	S–1, Sport	Sport
13	H. Suyanto, S.Pd	S–1, English	English
14	Wijanarko Adi Susetyo, S.Si	S–1, Komputer	BKTI
15	Yuli Nurhadi Wibawa, S.E	S–1, Economic	Economic/Akt
16	Latiful Atfiyah, M.Pd	S–2, Chemic	Chemic
17	Srianing, S.Pd	S–1, Art	Art
18	Azis Widodo, S.Pd	S–1, Indonesian	Indonesian
19	Sugeng Riadi, M.Pd	S–2, Mathematic	Mathematic
20	Budi Santosa, S.Pd	S-1, English	English
21	Eka Andriani, M.Pd	S–2, Geograph	History/Geograph
22	Deny Nofita, S.Pd	S–1, History	History
23	Dyah Ayu Ambarsari, S.Sn	S–1, Dance art	Dance art
24	Agustin Indahwati, S.Pd	S–1, Indonesian	Indonesian
25	Dian Arihasta, S.Pd	S–1, English	English
26	Lia Suryaningtyas, M.Pd	S–2, Chemic	Chemic
27	Eny Triyo Handayani, S.Pd	S–1, Biology	Biology
28	Dwi Siluk Maharani, S.Psi	S–1, Psychology	BKP
29	Niken Sylvia Puspitasari, M.Pd	S–2, Physic	Physic
30	Yusma Ria Zulaicha,M.Pd	S-2, Mathematic	Matematika

31	Istanti Fatkhul Janah,S.Pd.	S-1, Javanese Education	Javanese
b. Th 32	Gayuh Risdian Saputro,M.Pd.	S-2, Javanese Education	Javanese
33	Anton Mukminin,M.Pd.I	S-2, Islamic Education	P A I
b 34.	Ina Nurhidayati,S.Si,S.Pd	S-1 Physic and Physic Education	Physic
35 Th	Heri Cahyono,S.Pd.	S-1 Historical Education	Historic
36 e	Estiqleli Ahmediahsanti,S.Pd.	S-1 Art Education	Cultural art
37	Gde Nugrah Pratama,S.Pd.	S-1 Sport Education	Penjasorkes
38 C	Via Arizona,S.Pd.	S-1 Sport Education	Penjasorkes
39 o	Sutran Nurwanto,M.Pd.	S-2 Physic Education	Physic
40 n	Anis Sarofah,S.Pd.I	S-1 Arabic Education	Arabic
41 d	Didik,S.Pd.	S-1 Civic Education	PKN
42 i	Fahrur Roji,S.Pd.I	S-1 PAI	PAI
43 i	Marsita Eka Yuliani,S.Pd.I	S-1 PAI	PAI
44 o	Yusuf Hamdhani Abdi,S.Psi	S-1 Psychology	BK
45 n	Candra Novita Sayekti,S.Pd.	S-1 Mathematic	Matematika
46	Riska Juwita Handayani,S.Pd.	S-1 Biology Education	Biology
47 o f	Iva Aulya Rachmi,S.Pd.	S-1 Economic Education	Economic
48	Vaola Ari Sandi,S.Pd.	S.1 Civic Education	Civic Education
49. S	Greatta Pujalarasati	S-1 BK	BK

b. The Condition of Students

SMA Muhammadiyah 1 Ponorogo in academic year 2019/2020 has 22 classes with 623 students. They are X grade consists of 199 students; XI grade consists of 196 students and XII grades consist of 228 students. The condition of students in SMA Muhammadiyah 1 Ponorogo can be seen in table below:

Table 4.3

Condition of students in SMA Muhammadiyah 1 Ponorogo

Grade	Number of Students	Number of Class	Number of Students Each Class
X IPA	114	4	28
X IPS	85	3	28
XI IPA	115	4	28
XI IPS	81	3	27
XII IPA	147	5	29
XII IPS	81	3	27
XII Bahasa	-	-	-
Jumlah	623	22	-

B. Data Description

In this research, the researcher used quasi experimental research as the research design. Quasi-experimental research design required to use two class as control class and experimental class. The researcher applied special treatment for experimental class that is using socrative application for formative assessment. While for control class, the researcher applied common treatment that it using paper-based evaluation for formative assessment. The treatment was applied between pre-test and post-test to find whether the different

treatment gave a significant effects for students. The eleventh science grade students of SMA Muhammadiyah 1 Ponorogo were choosen by the researcher as population. Then as sample the researcher took two classes from the eleventh science grade students of SMA Muhammadiyah 1 Ponorogo. They were XI IPA 3 as control class and XI IPA 4 as experimental class.

The process of doing research that has been the researcher done had several steps. The first step, the researcher gave pretest to the both of classes. The second step, the researcher applied treatment using socrative application for formative assessment to the experimental class and paper-based evaluation to the control class. And the last step, the researcher gave posttest to the both of classes. So in the end of this research, the researcher wanted to compare students' post test score between experimental class that applied special treatment using socrative application for formative assessment and control class that didn't use special treatment.

1. Schedule of the Research

In this research, the researcher took two classes for eleventh science grade students of SMA Muhammadiyah 1 Ponorogo. There were three meeting in this research. The first meeting, the researcher did pre-test for control class and experimental class. The second meeting, the researcher did special treatment and took post-test for experimental class. And the last meeting, the researcher did common treatment and took post-test for control class. The research schedule can be seen in the table below.

PONOROGO

Table 4.4

Schedule of the research

Date	Activities
March 28, 2020	Pre test Control and Experimental class
April 19, 2020	Experiment and Post test Experimental Class
April 22, 2020	Experiment and Post test Control Class

2. The Result of Students' Score of Experimental Class

In the experimental class, the researcher chose objective test for pretest and posttest. The researcher gave 30 questions for two types of test, 15 questions for multiple choices and 15 questions for true-false by using Socrative Application.

The result of students' vocabulary score of pre-test and post-test for students who used socrative application for formative assessment are showed below:

Table 4.5

The score of Experimental Class

No.	Name	Score	
		Pre-test	Post-test
1.	Aan Prasetyo Widodo	55	82
2.	Alvia Kurniawati	70	97
3.	Amelia Puspita Wardani	88	100
4.	Anita Rahmawati	82	100
5.	Ardiansyah Rizky Assa S.	52	82
6.	Arya Fadila Nehayati	70	88

7.	Bima Setya Dimas P.	61	85
8.	Cindi Puspitasari	70	97
9.	Desita Maya Anggraini	64	88
10.	Devina Arnawati	70	94
11.	Dewinta Febrianti Zulaicha	73	97
12.	Ekhsan Nur Qolis	61	85
13.	Erlista Amilia Ananda	73	94
14.	Frendy Yoga Pratama	70	88
15.	Khoirun Nisa’	82	97
16.	Mas’ud Syarifudin Wahid	52	67
17.	Maulida Kholimaturrohmah	73	79
18.	M. Nasrul Pradana	52	82
19.	Mohammad Ridwan	70	82
20.	Nindi Putri Nurmalitasari	76	88
21.	Nur Ayu Qolifah	76	76
22.	Nur Hana	70	85
23.	Rasyid Fajar Nur Wachid	55	91
24.	Regita Cendikia Cahyani	73	94
25.	Resti Kholifah	79	88
26.	Rindany Boy Anggara	55	76
27.	Riris Indriani	85	97
28.	Tegar Aji Pasha	70	79
29.	Triana Puspitasari	76	82

PONOROGO

30.	Dinda Zahrotun Nada	67	91
Total		2070	2631
Mean		69	87,7

3. The result of Students' Score of Control Class

In the control class, the researcher chose objective test for pretest and posttest. The researcher gave 30 questions for two types of test, 15 questions for multiple choices and 15 questions for true-false.

The result of students' score of pre-test and post-test for students who used paper based assessment for formative assessment are showed below.

Table 4.6

The Score of Control Class

No.	Name	Score	
		Pre-test	Post-test
1.	Aisyah Nur Rahmawati	52	58
2.	Annis Septiana	55	67
3.	Ardy Wijaya	46	55
4.	Cantika Aprelia S.	85	97
5.	Dea Putri Wandayani	67	73
6.	Devina Hetya Anggraeni	70	70
7.	Dhea Mutiara Fernanda W.	61	64
8.	Diva Setya Damayanti	82	97
9.	Elzhar Musthofa Al Habib	94	97
10.	Eriana Awwalush S.	61	67

PONOROGO

11.	Firda Nurdiana	70	73
12.	Helfan Fernanda Aditya	46	52
13.	Indy Viorohma Asinta Z.	58	76
14.	Linda Tri Rahayu	70	82
15.	Mheyazuhra Shiva R.H.P	88	97
16.	Muhammad Fawwaz A.H	64	70
17.	Muhammad Firoos 'A.N	88	91
18.	Muh. Nailar Raza	94	97
19.	Moh. Irfan Nurhamdani	49	49
20.	Nathaniela Nastiti Nabila	70	79
21.	Nauval Zaki Fadlurohman	76	85
22.	Pranada Addin Nugraha S.	73	82
23.	Ranu Ricko Arya W.	58	61
24.	Riska Nur Aisya	79	88
25.	Ryan Kurniawan	70	79
26.	Sandi Prasetyo Ramadhan	55	58
27.	Satrio Nugroho	85	97
28.	Sheila Pradani	82	91
29.	Thalitha Anindya Fayza	79	88
30.	Walfi Prabuligiaro	73	88
31.	Yesika Putri Arga A.	70	82
Total		2170	2410
Mean		70	77,74

C. Data Analysis

Before testing the hypothesis, the data must fulfill the assumption in which the data must be normally and homogeneous distributed. Therefore, normality and homogeneity test will be provided.

1. Normality Test

Normality test is used to known whether the data in each variable that come from population have normal distribution. In this study, the researcher used SPSS 23 with Kolmogrov Smirnov to analyze normality test.

a. Normality test of Experimental Class

Table 4.7

Normality test of experimental class

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		30
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	6,56183905
Most Extreme Differences	Absolute	,162
	Positive	,083
	Negative	-,162
Test Statistic		,162
Asymp. Sig. (2-tailed)		,053[c]

a. Test distribution is Normal.

Based on the calculation above, the table showed that the significance value from normality test of Kolmogrov Smirnov is 0,053. The data can be said normally distributed if the sig > 0,05. This sig. value is 0,053 > 0,05. It means that the data from experimental class is normally distributed.

b. Normality test of Control Class

Table 4.8 Normality test of control class

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		31
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	4,47074860
Most Extreme Differences	Absolute	,115
	Positive	,115
	Negative	-,099
Test Statistic		,115
Asymp. Sig. (2-tailed)		,200[c,d]

a. Test distribution is Normal.

Based on the calculation above, the table showed that the significance value from normality test of Kolmogrov Smirnov is 0,200. The data can be said normally distributed if the sig > 0,05. This value is 0, 200 > 0,05. It means that the data from control class is normally distributed.

2. Homogeneity test

Homogeneity test is used to find whether the data was homogenous or not. In this research, the researcher used SPSS 23 to calculate the value of homogeneity test. The result of calculation is showed below:

PONOROGO

Table 4.9 homogeneity test

Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
2,829	1	59	,098

Based on the table above, the value of homogeneity test is 0,098. Therefore, the data can be said homogeneous if the sig > 0,05. This value is 0,098 > 0,05. It means that the data from experimental class and control class were homogeneous.

3. T-test

After conducting the normality test and homogeneity test, the next procedure was testing hypothesis. To analyze the data in this research, the researcher used T-test. It was used to compare the students' vocabulary mastery between two class which used socrative application for formative assessment and not.

Table 4.10

The Result of Mean Score of Experimental Class and Control Class

Group Statistics

	Class	N	Mean	Std. Deviation	Std. Error Mean
Result	Experiment	30	87,700	8,1247	1,4834
	Control	31	77,742	14,8951	2,6752

Based on the table above, the result of data analysis shows that the mean score posttest of experimental class (students who use socrative application) was 87,700 and the mean score posttest of control class (students who use paper based assessment) was 77,742. It means that there are any different mean between experimental and control classes score.

Table 4.11

The Result of T-Test Calculation and Independent Sample Test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Hasil	Equal variances assumed	14,016	,000	3,226	59	,002	9,9581	3,0867	3,7816	16,1345
	Equal variances not assumed			3,255	46,714	,002	9,9581	3,0590	3,8032	16,1129

Based on the result of t-test in the table above, the value of sig. (2-tailed) was 0,002. It means that sig. (2-tailed) < 0,05. So, it can be used to get the basis decision in independent sample t-test. Based on the basis of getting decision in independent sample t-test, if sig. (2-tailed) < 0,05 H_0 is rejected and H_1 is accepted. So, it can be concluded that there are any significant different score between students who use socrative application for formative assessment and student who didn't use socrative application for formative assessment.

Then, the table above also shows the Mean difference is 9,9581, it refers to average different of students score in experimental class and control class with the confidence

interval different is 3,7816 to 16,1345 (95% Confidence interval of the difference lower upper). T value is the result of t test = Degree of freedom (df)= n-2 (61-2= 59)

To interpret the data above, the researcher formulated hypothesis as below:

H_1 : There is any significant difference score in vocabulary mastery between students who used socrative application for formative assessment and who doesn't use socrative application for formative assessment.

H_0 : There is no any significant difference score in vocabulary mastery between students who used socrative application for formative assessment and who doesn't use socrative application for formative assessment.

The research result, t = 3,226, with df = 59 on level significance 5%. According to the value t_{table} = 1,671. It means that $t_{count} > t_{table}$ = 3,226 > 1,671.

D. Discussion and Interpretation

From the calculation above, it was shown that the difference coefficient of students who used socrative application for formative assessment and students who were not used socrative application for formative assessment is 3,226.

Hypothesis test (t_0) at 3,226 from the calculation above would be compared to the "t" index (t_t) with condition below:

1. If the $t_0 > t_t$, H_1 was accepted. It means that there was a significant difference between two variables.
2. If the $t_0 < t_t$, H_1 was refused. It means that there was no significant difference between two variables.

The calculation of (df)= n-2 (61-2=59) is 59. According to the table value "t_t" with df = 59 on level significance 5% is 1,671. Then the research result, t_0 = 3,226, so t0 > tt (3,226 > 1,671). It means that H_1 is accepted and H_0 is rejected. From the calculation above, it can be seen that the students who used socrative application for formative

assessment got better score than the students who were not used socrative application for formative assessment.

According to Terrion and Aceti, using Student Response System (Socrative application) and technology based systems can enhance students' engagement, where students can give an immediate feedback to the teacher questions.[57]

According to Ismail El Mahdi, Abdulghani Al-Hattami and Hala Fawzi, using technology based tools, such as Socrative application enhances formative assessment and consequently improves students' learning. The students' engagement is improved when the teacher uses socrative application for formative assessment which leads to creating effective teaching and learning environment.[58]

So, it can be concluded that there is any significant difference score in vocabulary mastery between students who used socartive application for formative assessment and who aren't use socrative application at the eleventh science grade students of SMA Muhammadiyah 1 Ponorogo.

PONOROGO

[57]J. L. Terrion & V. Aceti, " Perceptions of the Effects of Clickers Technology on Student Learning and Engagement: a Study of Freshmen Chemistry Students" *Research in LearningTechnology* 20, (2012), 16150.

[58]*Op.Cit.*, Ismail Ehmadi, Abdulghani Al-Hattami, Hala Fawzi, 187.

CHAPTER V

CLOSING

A. Conclusion

Based on data analysis, the researcher concluded that there was a significant different score on students' vocabulary mastery between students who used socrative application and paper based assessment for formative assessment in the eleventh grade students of SMA Muhammadiyah 1 Ponorogo. The students who are used socrative application for formative assessment got a better score than those who are not. The result of average score of post-test showed that experimental group or students who used socrative application for formative assessment (87,70) is higher than control group or students who didn't used socrative application for formative assessement (77,74).

It has been found that comparison between students' vocabulary score who used socrative application for formative assessment and who are not is 3,226. This score is higher than T_{table} which is 1,671 at the level significant 5% and db = 59. It means that H_1 is accepted and H_0 is rejected. In the other words, socrative application is effective for formative assessment in teaching vocabulary.

B. Recommendation

Based on the conclusion above, it can be delivered some recommendation that might be useful for English teacher, students and other researcher as follows:

1. English Teacher

   For English teacher, they should have variety of techniques and methods so that students are not easily bored when the process of teaching and learning. Besides a technique and method that is important thing to teaching and learning process, one of the other things is instructional media. An English teacher must consider with instructional media that can be used in teaching and learning process. By using media like

conventional media or digital media, it can attract students' motivation and interesting in teaching and learning process.

In addition, English teacher also can attract students' motivation and interesting in English teaching and learning process by doing mobile learning. They can take advantage from smart phones own students to doing formative assessment using mobile application. It hopes give new experience to students in English teaching and learning process.

2. Students

The researcher hoped that the students should pay more attention to the teacher when English teaching and learning process. They also are hoped to have a great motivation in learning, especially in English lesson. So, they have a desire to improve their English ability.

3. Readers

For the readers who have been read this research, the researcher hope that the result of this research can be useful as reference for a future research concerning with digital media and application that using for formative assessment.

PONOROGO

BIBLIOGRAPHY

Bachman. *Introduction to Language Classroom Assessment*. London:1999.

Brown, Douglas H. *Principles of Language Learning and Teaching Fifth Edition.* San Francisco: Pearson Education, 2007.

----------. *Principles of Language Learning and Teaching*. New Jersey: Prentice Hall, 1994.

Choudbury, Namita Rey. *Approach and Methods* in *English Language Teaching*. Cambridge: Himalaya Publishing House.

Coca, David Mendez and Josip Slisko. "Software Socrative and Smartphones as Tools for Implementation of Basic Processes of Active Physics Learning in Classroom: An Initial Feasibility Study with Prospective Teachers." *European Journal of Physics Education*, Vol 4. 2013.

Creswell, John W. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Boston: Peason Education Inc., 2012.

---------. *Research Design: Qualitative, Quantitative, and Mixed Methods Approach*. USA: SAGE Publications, 2009.

Crisp, Geoffrey. *Teacher's Handbook on e-Assessment*. San Francisco: Creative Common, 2001.

Decker, James Brandon. "A Second Look at Mobile Technology in the Classroom: Don't Ban it, Use it." *The CATESOL Journal*. Missouri State University. 2013.

Ehmadi, Ismail, Abdulghani Al-Hattami and Hala Fawzi. "Using Technology for Formative Assessment to Improve Students' Learning." *The Turkish Online Journal of Education Technology (TOJET)*. 2018.

PONOROGO

El-Hussein and Cronje. “Defining Mobile Learning in the Higher Education Landscape.” *Educational Technology & Society*. 2010.

Gangaiamaran, Ramya and Madumathi Pasupathi. “Review on Use of Mobile Apps for Language Learning.” *International Journal of Applied Engineering Research*. Tamil Nadu: Research India Publication, 2017.

Ghasemi, Asghar. *Normality Test for Statistical Analysis: A guide for non Statistican. Vol. 2, No.10*, 2012.

Harmer, Jeremy. *The Practice of English Language Teaching Third Edition*. London: Pearson Longman, 1997.

---------. *The Practice of English Language Teaching Fourth Edition*. London: Pearson Longman, 1997.

Hatch, Evelyn and Cheryl Brown. *Vocabulary, Semantics, and Language Education*. New York: Cambridge University Press, 1997.

Husssein, Hinda Jirdeh. “The Impact of Using Socrative based Formative Assessment to Enhance Student Achievement in a Nutrition Course: a Digital Forward Assessment.” *Journal for Researching Education Practice and Theory (JREPT)*. 2019.

Kaya, Ayhan & Nuri Balta. “Taking Advantages of Technologies: Using the Socrative in English Language Teaching Classes.” *International Journal of Social Sciences & Educational Studies*. 2016.

Kothari, C.R. *Research Methodology: Methods and Techniques (second revision edition*). New Delhi: New Age Publisher, 2004.

Latif, Mohammad Adnan. *Research Methods on Language Learning: An Introduction*. Malang: University of Malang Press, 2012.

Mardhaditya, Muhammad Ado Rizqi. "The Effectiveness of Jeopardy Game in Teaching Vocabulary in Seventh Grade Students at SMPN 1 Geger Academic Year 2017/2018." Ponorogo: Thesis Institut Agama Islam Negeri Ponorogo. 2018.

Maslawati, Mohammad. "Socrative in Teaching Tenses: Indonesian Students and Lecturers' Perception." *Creative Education*. 2019.

Montalvo, Maria. "Using Formative Assessment to Help English Language Learners." *ASCD Learn, Teach, Lead*. 2012.

Mujis, Daniel. *Doing Quantitative Research in Education with SPSS*. California: Sage Publication, 2004.

Richard, Jack C and Willy A Renandya. *Methodology in Language Teaching*. UK: Cambridge University Press, 2002.

Scheerens, Jaap Cees Glas and Sally M Thomas. *Educational Evaluation, Assessment, and Monitoring: A Systemic Approach.* Netherlands: Swets & Zeitlinger, 2003.

Seltman, Howard J. *Experimental Design and Analysis*. Carnegie: Carnegie Mellon University, 2018.

Terrion, J. L. & V. Aceti, " Perceptions of the Effects of Clickers Technology on Student Learning and Engagement: a Study of Freshmen Chemistry Students." *Research in LearningTechnology*. 2012.

Thornbury, Scott. *How to Teach Vocabulary*. Edinburg: Longman Pearson, 2007.

Tirlea, Laura *et al*. "The use of Socrative in Promoting Classroom Engagement: a Qualitative Investigation." *ICOTS*. 2018.

Trust, Torrey. *Online Tools for Teaching and Learning*. 2019. https://blogs.umass.edu/onlinetools/assessment-centere-tools/socrative/9 , accessed on 31 December 2019.

Wijaya, Antonius Agus. "The Role of Digital Learning Facilitation: Socrative app to Engage Students in Learning English." Yogyakarta: Thesis Sanata Dharma University. 2017.

PONOROGO

IAIN
PONOROGO