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Optimizing Online Learning Resource to Improve Students' Autonomous Learning and Vocabulary Mastery through Word Wall Activities

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ABSTRACT

The rapid development of the internet provides many opportunities for humans to develop, including in the field of education. This study explores the great benefits of the internet as an online learning resource combined with students' autonomous learning for vocabulary acquisition. This study used a quasi-experimental approach, the research subjects were two groups who received different treatments, the experimental group used reading materials on the internet that were selected easily based on student interests, students were asked to make simple notes on the worksheets and do word wall activities. Meanwhile, the control group used conventional methods for vocabulary mastery. Based on the results of the posttest, it is known that the experimental group has better vocabulary mastery than students in the control group, and students in the experimental group who have high autonomous learning get better vocabulary mastery than students with low autonomous learning. The conclusion of this study shows that reading short stories on the internet which are selected

based on student interest contributes to better vocabulary mastery for students. Students with high autonomous learning have a higher interest in exploring vocabulary mastery using short stories on the internet. The use of the internet is able to stimulate student interest in improving word mastery in word wall media activities. The use of the internet as a source of learning English online is able to solve classic problems in boring language classes.

1. Introduction

Computers and the internet are important tools for almost all aspects of human life, including in the learning process [1]. The rapid development of computers and cellular technology is an opportunity to improve the learning process including in ability tests and student self-evaluation [2]. The use of websites for learning and using mobile computers makes it very easy for teachers to improve the achievement of student learning outcomes [3], including in language learning.

The use of the internet since the 1990s has grown to become an essential tool for communication, business, education and many other services. The internet is a communication bridge and a rich source of information. The internet has become a miracle in the era of the 20th century that removes the boundaries of geographic space and helps individuals to interact. The increasing use of the internet among students should be directed at academic achievement, because there are many advantages and disadvantages of the internet that must be considered.[4]

The Internet and the World Wide Web have changed almost all aspects of human life, including the learning process. The internet has made online learning possible and many educators are using online learning to improve student learning outcomes while covering some resource limitations while increasing the demand for online learning from students. With the rapid growth of online education and its potential, it is important for educators to compare the effectiveness of online learning versus traditional learning [5]. education and development models have also undergone technical and structural innovations that are in line with developments in information technology as a result of the internet [6].

Like a knife blade, internet has both positive and negative impacts, the positive impact of the internet is makes it easy for people to access search engines and get the many sources of information they need, including the latest information updates, developing insights, bringing communication between people closer, increasing curiosity, and helping people complete other professional tasks [7].

However, many research results show the positive impact of the internet on student learning outcomes either through full online or hybrid learning when compared to conventional learning, including technical development of learning evaluation, increasing student involvement in the learning

process and teaching materials, increasing understanding of learning, improving a sense of closeness between students in the community, and minimize student learning failures. [5]

Learning has many meanings related to the point of view of a theory. However, a simple perspective about learning that more functional and can be verified and generalized states that learning is the process of changing one's behavior according to behavior change values, this view was developed and promoted by Skinner as in [8]

Learning process is about how to plan, implement, and finally self-learning or autonomous learning which refers to the process of student activity discussing planning and cognitive and affective processes involved in completing academic tasks. Learning activities require students to take an active role in obtaining maximum learning outcomes (Parsons, 2008) in [9]. Therefore, students need autonomous in learning methods that will improve their abilities, starting from the simple level (e.g. asking themselves and answering them) to planning and measuring their own learning outcomes [9], and language classes provide new insights to the development of student-based learning in these three decades [10].

Reading media develops along with the development of information and communication technology, so that the amount of material a person reads is not only from the number of books he buys or borrows from the library, but also from what he / she accesses on the internet and what he / she did with the information it got. The Internet can complement conventional reading media with the help of a search engine equipped with an information retrieval system. [7].

Education plays a big role in the development of society and civilization. One aspect of the development of social communication in the international world is the use of English as a world language which is widely used in various countries including Asia as a second language or the language of international communication [11].

In the last three decades, language classes offer a new perspective through a student-centered learning approach. New perspectives in language learning change the role of students from learning objects to learning subjects. In language class, students are expected to be able to take responsibility for their own learning process. The role of the teacher is slightly shifted by the existence of the responsibility to foster students' autonomous learning, so that students become more autonomous both inside and outside the classroom. [10]. The development of this learning paradigm creates the concept of "student autonomy" in the field of language, as cyted by benson in [10].

Many students difficult to show written or spoken English even with simple sentences [12] lack of confidence for fear of making mistakes, and feel learning vocabulary mastery is a boring activity [13], and learning vocabulary becomes a problem because teachers are not confident and do not know how to teach effectively [14].

In learning English which is often taught traditionally and is teacher-centered with the model of "imitating the teacher", does not provide maximum results and cannot function from the subjective side of students, this condition will get worse if students do not receive intensive guidance so that students are more likely to tired from learning burnout and caused students low self-convidence [15].

In Indonesia, the mastery of English skills of most students is still poor. They often do not like to read English texts and often get low achievements. This condition can be caused by teaching only in the classroom, and the absence of the learning activities outside the classroom because the lack of autonomous of learning in students and caused teachers to be frustrated [16].

Holec (1981: 3) in [17] stating that autonomous learning is 'the ability to take over one's own learning', determining learning goals; learning materials, methods and assignments; and carry out study assignments; and self-evaluating independently [18] [19] and this will make students more likely to be enthusiastic about learning [20], while at the tertiary level, students must learn independently to achieve the targets set [21].

The "learner-centered learning" paradigm is seen as an encouraging student autonomy. (Benson 2004, quoted by [22], because knowledge is not only transmitted, but involves active construction by learners through social interaction, and it's built together [23]. Learning process will be better if involves students in planning ways and learning media [24].

Student autonomy and teacher autonomy are interrelated, teachers who want to foster greater student autonomy must "start with themselves" [25]. Teachers must support students' psychological and practically for student learning independence [26], and build the individual side of students to connect classroom learning with language use [27], and teacher still have control over their teaching assignments [28]. So far, many language teachers believe that students who learn with strategies will be more successful because they learn more efficiently [29].

The autonomous learning of student can be done with involved students in making decisions about the learning process, and that causes learning to be more directed, increasing motivation [30] [31] [25], improving learning outcomes [32] making students aware that they need language skills [33] and accustom students to act independently in various situations [23], and students must often communicate and practice in class to improve their communicative competence [34] and engages students in planning ways and learning media [24] and learning will more interesting if involves art elements in learning process [35]

Students' motivation to learn foreign languages is often a debate among educators, students understand that they need skills in using English for the future [33]. Involving students in making decisions about the learning process makes learning more focused, increases motivation [30] [31] [25], and leads to more effective learning. Benson [23] suggests that student

8250

autonomy helps students act independently as lifelong learners in various situations outside the classroom and become critically aware members of society.

Bandura (1997) and Zimmerman (1998) in [36] state that students who are able to self-regulate throughout the learning process are strategic learners, learners those are able to experience positive performance either from themselves or from others, through verbal persuasion or through positive physiological conditions so that in the end they are able to develop their own skills. according to their own abilities and talents and able to control their own learning process.

Knowledge of vocabulary is considered by first and second language researchers to be very important in language competence [37]. Since the importance of vocabulary, as a component of any language, in communication, reading and other aspects of language learning is recognized, estimating vocabulary size has been of great interest to researchers. Over the years there have been many studies of vocabulary sizes trying to find out something about the vocabulary size of foreign languages [37].

Learning vocabulary plays an important role in language teaching especially in a context where English is taught as a foreign language [38], Whereas for second language learners, knowledge of vocabulary is considered the most important aspect in terms of academic achievement [39].

Vocabulary learning is a core of foreign language learning [40][14] including in English when taught as a second language, [38] and influences academic achievement for second language learners [39] because vocabulary mastery influences language competence as a component of language, communication, reading and other aspects, and thus attracting the attention of researchers for years [37]. Learning vocabulary is a core part of learning a foreign language in acquire new words. Mastery of new words can be through several activities such as reading a book or through interaction in class, including activities in language teaching centers.[14]

The use of computers and internet as a learning resource gives students the opportunity to choose reading material that they are interested in and this supports student learning independence [41] Internet as learning resource provides many learning opportunities for free and easy, many forms of material able to be learning materials for students. Learning material using multimedia may in the several forms of presenting words and images that have relevance to the subject matter, quoted from Mayer in   [42]. In addition, words also may in narrative or in the text form. Learning material images may also as in statistical, maps, diagram illustrations form and so on [42]. in this study, the study materials mostly used by student were words texts in short stories which are widely available online.

Online learning containt three components, according to the Community of Inquiry (CoI) [43], they are: First, the existence of a process of developing teaching materials, setting the learning process, the existence of facilities for

discussion activities to Achieve learning outcomes. Second, there is interaction in the learning process, between students and teachers, students and students and other interactions in the learning process. Third, there is a function in online learning where people feel as " real" in social communication process.

2. Theoritical Review

Online Learning Resource

Multimedia in teaching has various forms including the presentation of words and images which aim to encourage learning (Mayer, 2009) cyted in [42]. Words can be in narrative or printed form, both digital and manual. In this lesson students read words in the form of short stories directly on the internet. Short stories that students choose freely but must get permission from the teacher. Students make an offer to the teacher and teacher chooses a story that they feel is appropriate and can contribute for students understanding. Short stories are considered able to stimulate students' interest in reading and have curiosity if there are new words that they don't understand yet.

Online learning is learning with the help of communication and information technology which mostly runs on web and internet platforms. Online learning is becoming more and more popular and some people make online learning as an alternative to the learning process which can cost a lot of money [44]. Changes in the way of learning as a result of the use of online learning have caused many changes in the last few decades, on the one hand it is able to improve higher-order thinking skills, problem-solving skills, and learning effectiveness. In general, in the teaching and learning process, many practitioners use the website as part of the learning process [45].

Learning activities are closely related to reading as part of literacy. Reading will stimulate a student to think and strive to achieve learning goals through the process of understanding text and involving language skills. Reading can be done through various platforms including books, and at this time reading can be done online by accessing websites that provide information and can be easily found through search engines [7].

Online learning resources in this study are short stories that are widely available on the internet. There are many reading materials that are easy for students to read and understand, including most students in grade 8 of junior high school. Students are directed to read and discuss appropriate short stories.

2.2 Autonomous Learning

Autonomous Learning is defined as "the ability of students to control their own learning" (Holec 1981) in the form of setting goals, defining material, choose learning methods and techniques, monitor acquisition procedures (rhythm, time, place, etc.) and evaluate what has been obtained [46].

Students have the freedom to choose what, when and how to learn according to their own needs, interests and abilities [47].

Little (1994 p. 431) states that, "all learning that is truly successful is due to autonomous factors". Cited by [47], because autonomous has a correlated with student motivation level [24], Students must have a psychological capability to explore their own learning abilities and their language learning performance [48].

Student's automous is an attribute of the learner, not part of the learning process itself. Student's automous has two main things: (1) students are responsible for organizing the learning process from the selection of study materials to assessment and (2) have responsibility for their own learning [31]. Researchers agree that autonomous learners understand their learning goals, demonstrate responsibility, voluntarily engage in practice, implement appropriate learning strategies, review and evaluate their learning progress regularly [30] [31].

Word Wall Media

Word wall is a learning media in the form of a collection of words that are high-frequency used or found, and also based on classified or categories of words. The words placed on the classroom wall so that it is easily seen and learned (Brabham & Villaume, 2001) in [49]. The words printed in large size so that they are easily seen from any position in class [50]. There are 5 stages and there are about 110 to 120 words used in word wall media [51].

Through word wall media, Students can explaining, spelling words, improving spelling through written and oral [50], thus forming an understanding to connect the knowledge of one new word with old words that have been known before [52].

Referring to Harmon, et.al. (2009) the stages of using a word wall are, (a) choosing words, (b) introducing words, (c) connecting words, (d) using words in various ways, and (e) dividing the meaning of words [53]. Ideally, in elementary class, about five high frequency words are added each week to the word wall until there are between 110 and 120 words [51].

Wordwall is able to serve to teach word analysis and build vocabulary from subject matter. Overall, word wall focuses on the mastery of words with high frequency that are found in general reading cyted from Cooper & Kiger in [51]. Hall & Cunningham (1999) in [51] stated that wordwall activity can be an activity to play with words in several fun forms, and involve interesting visual elements and active words that have high frequency. This situation will affect students' Long-term memory to use words in an easy way. Word wall activities are also able to stimulate students to learn new vocabulary by explaining, spelling words, improving spelling through written and spoken words [50].

Vocabulary

Vocabulary is a core of language ta that connects the four skills of language; speaking, listening, reading and writing. According to Krashen (1989), mastery of vocabulary is important because vocabulary is important for

mastering a language, and a dictionary are more required rather than a grammar in language acquisition [54].

According to the nation [55], there are two basic requirements needed to learn vocabulary, namely: the number of repetitions (words) and good quality mental processing. There are other factors that also affect the vocabulary learning process, including the level of student learning motivation which varies widely, there are geatly differences in the difficulty level of words in students, however without an emphasis on the quantity and quality of mental processes, the learning process will never happen.

Acquisition of words in learners requires deepening of knowledge and awareness, interest, and motivation to learn new words [56] and to learn the needs learning, learning environment, learning strategies and language awareness [57]. The depth of knowledge of students correlated with students' obtained in lexical items (Qian, 2002) in [58] and the extent of knowledge of language refers to the number of words a person has [58].

3.   Methods

Research Design

This study is uses a quasi-experimental research design by determining the non-random sample group with the initial test and the final test with the control group "non-randomized pretest-posttest control group design [16].

The number of research subjects in this study were 110 students. They are 8th-grade students of a junior high school in East Java, Indonesia, who are studying English. The two subject groups of this study were: 58 students in the experimental group using wordwall media to learn and 62 students in the control group using conventional teaching methods.

Research subjects in this study were divided into two groups, namely the experimental group and the control group, selected randomly. All groups got a vocabulary mastery pre-test. Teacher assessment of students' Autonomous Learning through a questionnaire from Holec (1983) which has been adapted into English learning by [59], with three main components of autonomous, that are: Planning, Implementing, and Evaluating. After the learning process through the word wall, students were given a post-test to assess vocabulary mastery.

Research Procedure

At the initial stage, all subjects were given a vocabulary mastery pre-test. While the learning process, teacher fills out a questionnaire about students' autonomous. At the end, a post-test was conducted to identify the effect of wordwall on the level of vocabulary mastery of EFL students, including in terms of students' autonomous learning.
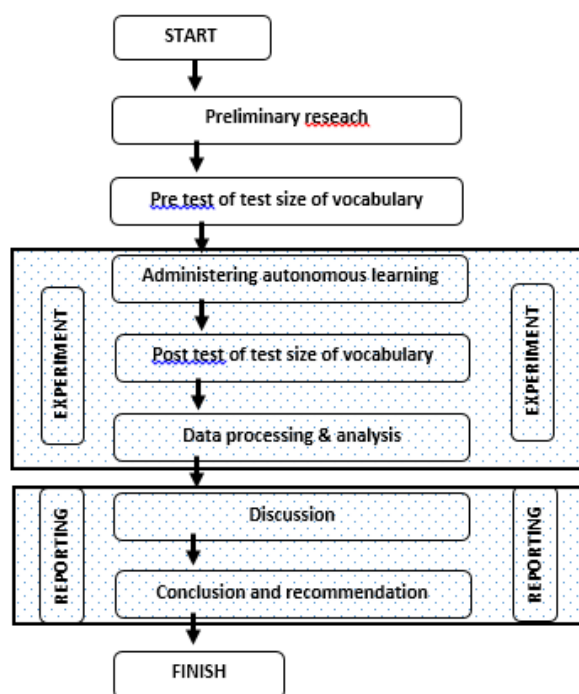
Instruments of Students' Autonomous Learning

Students' autonomous learning was measured to two groups that were given a pretest to find out the level of Autonomous Learning by using a questionnaire from Holec (1983) that had been adapted into English learning [59] by containing three main components of autonomous learning as follows :

Inisiative
a. Understanding English learning goals (what is being taught in the classroom)
b. Having personal goals in English learning instead of instructional objectives from schools
c. Planning for English learning
d. Having initiatives to look for other resources for English learning
e. Having initiatives to look for new opportunities in English learning

1. Monitoring
a. Identifying suitable strategies to learn English
b. Using suitable strategies to learn English
c. Selecting appropriate materials
d. Showing effort to progress in English learning
e. Implementing learning activities
f. Focusing on learning activities
g. Collaborating with others in English learning
h. Interacting with others in English learning

2. Evaluating
a. Evaluating learning strategies
b. Evaluating progress in English learning
c. Evaluating the outcomes of English learning

While carrying out activities using the word wall, researchers also provide increased student's autonomous learning as recommended in Holec (2008). The teacher has the task of assessing the three stages of student's autonomous learning through a questionnaire card.

Instruments of Vocabulary Level

The questionnaire of vocabulary mastery In this study, was adapted from the Vocabulary Size Test from Nation [60] with several words as in Chapter VII titled "MY UCLE IS ZOO KEEPER" entered according to the instructions for compiling the first 10,000 vocabulary mastery questions.

The question is 70, it is 50 questions (wods) from www.victoria.ac.nz/lals/staff/paul-nation.aspx and 20 questions (words) are from Chapter VII of the 8th grade English textbook. Test implemented in 45 minutes, students must answer questions without having to fully understand the contents of questions and answers, because students must guess the contents of questions and answers according to their knowledge of words. During the study, students still get learning according to schedule in eight meetings.

The treathment of vocabulary mastery through wordwall media

The experimental group received vocabulary mastery learning through wordwall media according to the chapters in the English subject books. Teacher gives an explanation about wordwall media. Teacher makes 10 (ten) core vocabulary words on the wordwall card, students are asked to write words that have relevance to the 10 words that are prepared on the card and stick them to the wall.

The following is a chapter in the 8th grade English textbook provided at school.

Tabel 1. *List of chapters of 8th grade English subjects even semester*

Pertemuan	BAB	MATERI
Meeting I	Chapter VIII	WHAT ARE YOU DOING?
Meeting II		(Present Continuous Tense/Progressive Tense)
Meeting III	Chapter IX	BIGGER IS NOT ALWAYS BETTER
Meeting IV		(Degrees of comparison)
Meeting V	Chapter X	WHEN I WAS A CHILD
Meeting VI		(Simple Past Tense)
Meeting VII	Chapter XI	YES, WE MADE IT!
Meeting VIII		(Recount Text)

Learning begins with the teacher asking students to learn the nature of learning in textbooks, then students are asked to read short stories in English on the internet, the sources and themes of the short stories according to students' interests. Some of the short stories available on the internet are http://www.english-for-students.com, http://yourstoryclub.com. https://storiestogrowby.org. and many more, especially stories about moral values. Two students sit in pairs and read short stories on the internet together and they discuss the content of the stories. The purpose of students sitting in pairs is to create social interaction as a learning process.

Students read on a computer for 20 minutes, then discuss about the content of short story and compose simple sentences within 10 minutes. Student pairs are students who have the same autonomous level, the aim of this is to finding a real difference between the two autonomous learning groups.

Students are asked to write short sentences and match the words on the wordwall, at least one sentence, but generally, students with high autonomous will make two or more short sentences, one short sentence is attached to the word wall, while other short sentences are composed and stored in student worksheet.

Students with high autonomy learning appear to be more enthusiastic about reading on the Internet and discussing reading results. The use of reading on the internet will give students the freedom to choose reading material according to their interests.

4.   Result

Conditions of student learning independence
The condition of student learning independence is known based on the results of the questionnaire conducted by the teacher during the provision of vocabulary mastery treatment through the word wall.

Tabel 2 Level of Students' Autonomous Learning

Class	N	Mean	Std. Deviation
Experiment	58	66.3103	2.23377
Control	62	62.5161	4.11212
Total	110		

Based on the table 2, the experimental class was 58 students, average score of autonomous was 66.31 and standard deviation score was 2.23. Whereas in the control group with 62 students, the average autonomous was 62.51 and standard deviation score is 4.11.

Tabel 3 *Data distribution level of Students' Autonomous Learning*

Class	Experiment	Control	Total
High AL	31	33	64
Low AL	27	29	56
Total	58	62	110

Based on table 3, the experimental group with a number of subjects was 58 students, there were 31 students with high Autonomous Learning and 27 students with low Autonomous Learning. In the control group with 62 students, there were 33 students with high Autonomous Learning and 29 students with low Autonomous Learning

Pre-test vocabulary mastery scores

A pre-test was conducted to determine the level of vocabulary mastery between the experimental and control groups. Data about the results of the pre-test on students' vocabulary mastery in the two groups is shown in table 5 below:

Tabel 4. *Descriptions of vocabulary mastery pre-test results*

Class	N	Mean	Std. Deviation
Experiment	58	46.086	2.873
Control	62	46.339	2.210

At the table 4. The distribution of pre-test mean scores for the reading ability of the two groups was not much different. The experimental group's vocabulary mastery level was 46.089 did not differ greatly from the control group's average score was 46.339. The table shows that the subjects in this study have a balanced ability so that research can be done to implement learning with wordwall media.

Post-test score on vocabulary mastery

Vocabulary mastery post test statistics show that the average vocabulary mastery of students in the experimental class is higher than the control class and also higher than the pre-test, with the mean value of the experimental group at 64.83 and the control group at 61.48.

Tabel 5. *Descriptions of vocabulary mastery post-test results*

Class	Criteria	N	Mean	Std. Deviation
Experiment	High AL	31	60.677	2.039
	Low AL	27	54.704	2.181
Control	High AL	33	47.579	2.372
	Low AL	29	46.966	2.044

Table 5 shows the results of the post-test mastery of the vocabulary of students who learn using wordwall media achieve higher results than students who study without a word wall. The average score of students with high Autonomous Learning in the experimental group was 60.677 with a standard deviation was 2.039, while students with low autonomous learning obtained an average score was 54.704 with a standard deviation of 2.181. In the control group; the average score achieved by students with high autonomous learning was 47.579 with a standard deviation of 2.372 and students with low Autonomous Learning get a score of only 46.966 with a standard deviation of 2.044

5. Discussion

This reseach generally is differences with other similar studies. The unique in this research is the learning of vocabulary mastery using wordwall media [51] actually only write one word [50], but in this study, there are several activities as like below : 1). students use the internet as reading material before students write one word on the wordwall, 2) based on reading material on the internet, students compose several simple sentences [61], and write at least new 5 nouns and 5 verbs in their workbook, and 3) students are asked to write at card one word and placed it on the word wall and write one simple sentence [61] with the meaning at the bottom of the sentence that student write. Write the meaning of a sentence at the bottom of a simple sentence in foreign languages, will give student opportunity easier to remember new word when the sentence has unique and interesting meanings [13] than remember one by one word.

The second uniqueness is the increase in students' autonomous learning in the vocabulary mastery process which is based on the concept of autonomous learning of Holec (2008). Questions number 1 through 5 are a reflection of students' autonomous learning which illustrates how students perceive the importance of learning as they will experience. Questions number 6 through number 13 describe the students' autonomous in the learning process. Questions number 14 through 16 are a description of how students evaluate their learning outcomes. In wordwall activities, students can measure the number of new words they have memorized based on simple sentences that have been written in each student's workbook, can be seen and memorized simply every day, and arrange new simple sentences based on the new vocabulary they have memorized.

The third uniqueness of this research is, students are asked to read short stories on the internet and are free to choose the stories they like, but still under the supervision of the teacher. Reading short stories on the internet is considered useful for stimulating students' vocabulary mastery. Reading short stories as student reading material aims to make students feel interested in continuing to read and have a sense of curiosity about the stories they read, this will attract high autonomous students in themselves to

continue reading and at the same time they try to understand the meaning of some new words which they don't yet understand.

The vocabulary mastery activity using short story in internet and wordwall activity makes it easy for students to gain experience in memorizing vocabulary especially with the added activity of making simple sentences. Thus, the wordwall media implemented with the autonomous learning approach becomes an interesting challenge. According to [27] autonomous learning has a significant effect on student understanding, because students are individuals who actively shape their learning experiences for self-development.

Research by Sholeh [16] concluded that students who have the ability to self-regulation or autonomous learning have a level of reading ability that is better than students who do not have the ability to self-regulation. The success of students' autonomous learning is greatly influenced by students' experience during the learning period [62]

In research of [12], it appears that the student learning outcomes in the experimental class are better than the control class. The world wall has several advantages in the learning process, including a colorful word wall design that can activate students' thinking processes and students will not be bored and passive in the classroom because it will interact with the word wall. The conclusion of this study shows that the word wall is effective in learning simple present tense. English teachers should look for more methods that can be used to teach the simple present tense. Research by [63], shows that there is a strong positive correlation between high levels of self-regulation and high vocabulary size.

In study of [64], this study compared students' self-skills between gifted students and students who were not gifted in the science learning subject. The research findings indicated that there were significant differences in the aspects of self-regulation skills of gifted and non-gifted students. The data show that the self-regulation skills of gifted students are higher than those of non-gifted students. Gifted students have autonomous individuals that have motivated themselves and managed their own learning using their self-regulated learning.

Writing new words in student workbooks has an impact on the mastery of the number of new words students get. This is in accordance with the results of research conducted by [39] who has conducted research on the impact of using notebooks on vocabulary mastery in students by providing support for learning autonomy in the learning process which was carried out for four weeks.

Research by Anindyajati [53] shows significantly increased vocabulary mastery in children with hearing impairment. The research of Sartika's [49] show that Word Wall media plays an important role to help students learn to write descriptive texts with positive responses of more than 50% on the use of Word Wall media.

The results of this study also correlate with the results of Yan's research [65] which shows that the use of the internet is able to provide great benefits for the English learning outcomes of middle and elementary school students in rural areas.

6. Conclusion

The internet provides great assistance for student outcomes who learning mastery vocabulary using wordwall media. Learning via the internet also increases students' Autonomous Learning. The internet is an easy and inexpensive learning resource and media. Students can be encouraged to learn a lot of new vocabulary through short stories that are available on the internet through several short story websites that are easy to find. The use of internet as a student learning resource of course with permit and direction of the supervisor or teacher who accompanies the students while surfing and looking for reading material.

Vocabulary mastery using word wall media and word wall activities in this study was proven to improve vocabulary mastery of 8th-grade students in junior high schools. Autonomous learning play as an attribute of learning and cause better results for English learner. Internet plays an important role in providing free learning materials for students with high autonomous learning.

Autonomous learning is an important aspec of improving student learning outcomes and even reaching the expectations of schools and teachers, this is because the learning process is not just a transmission from the teacher but more due to an active process by students. The teacher can use the student learning autonomus learning check list to find out and find solutions if there is a weak side to students in the learning process.

The use of the internet supports students' Autonomous Learning and be an important part to improve student learning outcomes and achieve the expectations of schools and teachers, this is because the learning process is not just a transmission from the teacher but more because of the active process by students. The teacher can use the checklist of students' autonomous learning to find out and find solutions if there is a weak side to students in the learning process.

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References

N. Dogruer, R. Eyyam, and I. Menevis, "The use of the internet for educational purposes," Procedia - Soc. Behav. Sci., vol. 28, no. October 2015, pp. 606–611, 2011, doi: 10.1016/j.sbspro.2011.11.115.

Y. Huang, Y. Lin, and S. Cheng, "Computers & Education An adaptive testing system for supporting versatile educational assessment," Comput. Educ., vol. 52, no. 1, pp. 53–67, 2009, doi: 10.1016/j.compedu.2008.06.007.

N. Solihati and H. Mulyono, "Designing and Evaluating the Use of Smartphones to Facilitate Online Testing in Second-Language Teacher Education (SLTE): An Auto-Ethnographic Study," IJET, vol. Vol. 13, N, pp. 124–137, 2018, doi: https://doi.org/10.3991/ijet.v13i01.7683.

N. Taak and N. Taak, "Impact of more Adaptation of Internet on Students :," Int. J. Res. Appl. Sci. Eng. Technol., no. April, 2020, doi: http://doi.org/10.22214/ijraset.2020.4263.

T. Nguyen, "The Effectiveness of Online Learning : Beyond No Significant Difference and Future Horizons," vol. 11, no. 2, pp. 309–319, 2015.

Z. Zhou, "An interaction theory-based new distance teaching model for cross talk," Int. J. Emerg. Technol. Learn., vol. 13, no. 6, pp. 190–202, 2018, doi: 10.3991/ijet.v13i06.8588.

N. Kurniasih et al., "Internet and learning resources: A case study of the Library and Information Science Students at Universitas Padjadjaran," J. Phys. Conf. Ser., vol. 1114, no. 1, 2018, doi: 10.1088/1742-6596/1114/1/012086.

A. B. Barron, E. A. Hebets, T. A. Cleland, C. L. Fitzpatrick, M. E. Hauber, and J. R. Stevens, "Embracing multiple definitions of learning," Trends Neurosci., vol. 38, no. 7, pp. 405–407, 2015, doi: 10.1016/j.tins.2015.04.008.

M. Tasnimi and P. Maftoon, "Application of Self-regulation in Reading Comprehension Application of Self-regulation in Reading Comprehension," J. Lang. Teach. Res., no. July 2014, 2016, doi: 10.4304/jltr.5.4.844-855.

Ö. Yıldırım, "Turkish EFL Learners' Readiness for Learner Autonomy," J. Lang. Linguist. Stud., vol. 4, no. 1, pp. 65–80, 2008.

N. I. B. Elas, F. B. A. Majid, and S. Al Narasuman, "Development of Technological Pedagogical Content Knowledge (TPACK) for English teachers: The validity and reliability," Int. J. Emerg. Technol. Learn., vol. 14, no. 20, pp. 18–33, 2019, doi: 10.3991/ijet.v14i20.11456.

R. Syam, "The Effectiveness of Using Word Wall in Teaching.," ETERNAL, vol. I, no. 02, 2015, [Online]. Available: http://journal.uin-alauddin.ac.id/index.php/Eternal.

I. Susana, "Enhancing for vocabulary mastery through mnemonics keyword method to the university students |," English Educ. J. English Teach. Res., no. May, pp. 1–8, 2017.

M. Alqahtani, "The Importance Of Vocabulary In Language Learning And How To Be Taught," Int. J. Teach. Educ., vol. III, no. 3, pp. 21–34, 2015, doi: 10.20472/TE.2015.3.3.002.

F. Yuan, "An English language multimedia teaching model based on Krashen's theory," Int. J. Emerg. Technol. Learn., vol. 13, no. 8, pp. 198–209, 2018, doi: 10.3991/ijet.v13i08.9051.

A. Sholeh, "Self-Regulated Learners in Voluntary Reading : The effects and Implications on EFL Reading Classes To cite this article :," J. Educ. Gift. Young, vol. 7, no. December, pp. 867–883, 2019, doi: http://dx.doi.org/10.17478/jegys.621021.

A. Ahmad and A. Razeq, "University EFL Learners ' Perceptions of Their Autonomous Learning Responsibilities and Abilities," 2014, doi: 10.1177/0033688214547035.

N. Oruç, "Language Learner Autonomy : Is it Really Possible ?," Procedia - Soc. Behav. Sci., vol. 232, no. April, pp. 650–654, 2016, doi: 10.1016/j.sbspro.2016.10.089.

N. S. Lengkanawati, "Learner autonomy in the indonesian efl settings," Indones. J. English Lang. Teach., vol. 6, no. 2, pp. 222–231, 2017, doi: dx.doi.org/10.17509/ijal.v6i2.4847.

C. Balçıkanlı, "Learner Autonomy In Language Learning : Student Teachers ' Beliefs," vol. 35, no. 1, 2010.

R. Hamdi, "Developing Learner Autonomy in Vocabulary Learning in classroom : How and Why can it be Fostered ?," Procedia - Soc. Behav. Sci., vol. 232, no. April, pp. 784–791, 2016, doi: 10.1016/j.sbspro.2016.10.106.

L. Han, "Teacher ' s Role in Developing Learner Autonomy : A Literature Review," vol. 1, no. 2, pp. 21–27, 2014, doi: 10.5430/ijelt.v1n2p21.

P. Benson, "Teaching : Autonomy in language teaching and learning State-of-the-art article," no. January 2007, pp. 21–40, 2014, doi: 10.1017/S0261444806003958.

I. Fatawi, I. N. S. Degeng, P. Setyosari, S. Ulfa, and T. Hirashima, "Effect of Online-based Concept map on Student Engagement and Learning Outcome," Int. J. Distance Educ. Technol., vol. 18, no. 3, 2019.

D. Little, "Learner autonomy , teacher autonomy and the European Language Portolio," no. March, pp. 1–3, 2004.

R. Smith, "Learner autonomy," vol. 62, no. April, pp. 395–397, 2018, doi: 10.1093/elt/ccn038.

H. Reinders, "Towards a Classroom Pedagogy for Learner Autonomy : A Framework of Independent Language Learning Skills," vol. 35, no. 5, 2010.

N. S. Masouleh and R. B. Jooneghani, "Autonomous learning : A teacher-less learning !," vol. 55, pp. 835–842, 2012, doi: 10.1016/j.sbspro.2012.09.570.

A. Sholeh, P. Setyosari, B. Y. Cahyono, and Sulthoni, "Effects of Scaffolded Voluntary Reading on EFL Students ' Reading Comprehension," Int. J. Instr., vol. 12, no. 4, pp. 297–312, 2019, [Online]. Available: www.e-iji.net.

S. Cotterall, "Developing a course strategy for learner autonomy," vol. 49, no. May, 1995.

L. Dickinson, "Autonomy And Motivation A Literature Review," Pergamon, vol. 23, no. 2, pp. 165–174, 1995.

E. A. M. Abadi, "The Relationship between Learner Autonomy and Vocabulary Learning Strategies in Iranian EFL Learners with Different Language Proficiency Level," Int. J. Appl. Linguist. English Lit., vol. 2, no. 3, 2013, doi: 10.7575/aiac.ijalel.v.2n.3p.176.

S. Hubackova, "Geocaching as a motivation to foreign language teaching," vol. 232, pp. 321–325, 2016, doi: 10.1016/j.sbspro.2016.10.029.

Sylvia, G. H. Sulistyo, and S. Arsyad, "Willingness to Communicate in a Foreign Language : The Factors Affecting Students with a High English Ability in the Higher Education Classroom," vol. 11, no. 10, pp. 37–52, 2020.

Z. Zakaria and P. Setyosari, "The Effect of Art-Based Learning to Improve Teaching Effectiveness in Pre-Service Teachers," J. Educ. Gift. Young, vol. 7, no. September, pp. 531–545, 2019, doi: DOI: http://dx.doi.org/10.17478/jegys.606963.

E. ÜSTÜNLÜOĞLU, "Temperature and Sludge Recycle Control of the High-Rate Activated Sludge Process.," Journal of Theory and Practice in Education, vol. 1. pp. 198–213, 1977.

R. Waring and P. Nation, "Second Language Reading and Incidental Vocabulary Learning," Angl. ENGLISH-SPEAKING WORLD, vol. 4, no. January 2004, 2019, [Online]. Available: https://www.researchgate.net/publication/285872812%0ASecond.

R. Saengpakdeejit, "Strategies for Dealing with Vocabulary Learning Problems by Thai University Students," vol. 14, no. 1, pp. 147–167, 2014.

V. Vela and J. Rushidi, "The Effect of Keeping Vocabulary Notebooks on Vocabulary Acquisition and Learner Autonomy," Procedia - Soc. Behav. Sci., vol. 232, no. April, pp. 201–208, 2016, doi: 10.1016/j.sbspro.2016.10.046.

X. Shi, "Application of Multimedia Technology in Vocabulary Learning for Engineering Students," vol. 12, no. 1, pp. 21–31.

E. Language and W. Budiyani, "THE IMPACT OF INTERNET APPLICATION AS RESOURCE OF LEARNING ON STUDENTS ' INDEPENDENCE," vol. 3, pp. 7–12, 2019.

R. E. Mayer, "Using multimedia for e-learning," J. Comput. Assist. Learn., vol. 33, no. 5, pp. 403–423, 2017, doi: 10.1111/jcal.12197.

Ü. Çakıroğlu and S. Kılıç, "Understanding community in synchronous online learning: do perceptions match behaviours?," Open Learn., vol. 35, no. 2, pp. 105–121, 2020, doi: 10.1080/02680513.2018.1500888.

A. F. Zulfikara et al., "ScienceDirect ScienceDirect ScienceDirect The Effectiveness of Online Learning with Facilitation Method The Effectiveness of Online Learning with Facilitation Method," Procedia Comput. Sci., vol. 161, pp. 32–40, 2019, doi: 10.1016/j.procs.2019.11.096.

S. J. R. Martínez, X. G. O. Camacho, F. D. Guillén-Gamez, and J. B. Agapito, "Attitudes Toward Technology Among Distance Education Students : Validation of an Explanatory Model," Online Learn. J., vol. 24, no. 2, pp. 59–75, 2020, doi: https://doi.org/10.24059/olj.v24i2.2028.

J. Xu, "A Survey Study of Autonomous Learning by Chinese Non-English Major," no. 1967, pp. 25–32, 2009.

K. Szőcs and E. J. College, "Teachers ' and learners ' beliefs about language learning autonomy and its implications in the classroom : A mixed method study," vol. 11, pp. 125–145, 2017.

E. Boyadzhieva, "Learner-centered Teaching and Learner Autonomy," Procedia - Soc. Behav. Sci., vol. 232, no. April, pp. 35–40, 2016, doi: 10.1016/j.sbspro.2016.10.008.

R. Sartika, "Implementing Word Wall Strategy In Teaching Writing Descriptive Text For Junior High School," vol. 5, no. 2, pp. 179–186, 2017.

J. Cronsberry, Word Wall; a support for literacy in secondary school clasaroom. https://www.readingrockets.org/, 2004.

J. Jasmine and P. Schiesl, "The Effects of Word Walls and Word Wall Activities on the Reading Fluency of First Grade Students," vol. 49, no. 4, 2009.

Suhartono, I. N. S. Degeng, I. Suyitno, and Sulton, "A Comparison Study : Effects Of The Group Investigation Model And The Direct Instruction Model Toward Science Concept Understanding.," J. Pendidik. IPA Indones., vol. 8, no. 2, pp. 185–192, 2019, doi: 10.15294/jpii.v8i2.18135.

Y. R. Anindyajati and A. S. Choiri, "The Effectiveness Of Using Word Wall Media To Increase Science-Based Vocabulary Of Students With Hearing Impairment," Eur. J. Spec. Educ. Res., vol. 2, no. 2, pp. 14–23, 2017, doi: 10.5281/zenodo.237060.

L. T. Tuan, "An Empirical Research on Self-learning Vocabulary," vol. 1, no. 12, pp. 1688–1695, 2011, doi: 10.4304/tpls.1.12.1688-1695.

P. Nation, "How vocabulary is learned Quantity of meetings (Repetition)," Indones. J. English Lang. Teach., vol. 12, no. May, pp. 1–14, 2017.

K. D. Wood and W. B. Hedrick, "Interactive Word Walls : More Than Just Reading the Writing on the Walls," no. February 2009, 2014, doi: 10.1598/JA.

A. Asgari, "The Type of Vocabulary Learning Strategies Used by ESL Students in University Putra Malaysia," vol. 4, no. 2, pp. 84–90, 2011, doi: 10.5539/elt.v4n2p84.

Ö. Özönder, "Student EFL Teachers ' Receptive Vocabulary Size," Procedia - Soc. Behav. Sci., vol. 232, no. April, pp. 444–450, 2016, doi: 10.1016/j.sbspro.2016.10.061.

K. Khotimah, U. Widiati, M. Mustofa, and M. F. Ubaidillah, "Autonomous English learning : Teachers ' and students ' perceptions," vol. 9, no. 2, pp. 371–381, 2019, doi: 10.17509/ijal.v9i2.20234.

P. Nation, The Vocabulary Size Test, no. October. victoria.ac.nz, 2012.

S. S. Sukandi and Y. Merina, "Types o f Sentences In EFL Students ' Paragraph Assignments : A Quantitative Study on Teaching and Learning Writing At Higher Education Level," vol. 1, pp. 137–146, 2017.

A. Fawait, P. Setyosari, Sulthoni, and S. Ulfa, "Identification of Factors Affecting of Character Education Program on High School Students ' Self-Regulation Skills," jegys, vol. 8, no. March, pp. 435–450, 2020, doi: DOI: http://dx.doi.org/10.17478/jegys.683155 1.

B. Ùentürk, "Self-Regulation Strategies and Vocabulary Size of EFL Turkish University Students," Int. Conf. Teach. Learn. English as an Addit. Lang., vol. 232, no. April, pp. 90–97, 2016, doi: 10.1016/j.sbspro.2016.10.023.

H. S. Tortop, "A Comparison of Gifted and Non-Gifted Students ` Self-regulation Skills for A Comparison of Gifted and Non-gifted Students ' Self-regulation Skills for Science Learning To cite this article :," no. August, 2015, doi: 10.17478/JEGYS.2015112017.

Y. Gong, "Innovative English classroom teaching based on online computer technology in rural middle and primary schools," Int. J. Emerg. Technol. Learn., vol. 13, no. 10, pp. 4–14, 2018, doi: 10.3991/ijet.v13i10.9449.