INVESTIGATING THE EFFECTIVENESS OF COMPUTER ASSISTED LANGUAGE LEARNING (CALL) USING DRILL IN ENHANCING VOCABULARY-A STUDY ON JUNIOR HIGH SCHOOL

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ABSTRACT

Vocabulary is one of English components which supports English skill. Teaching English vocabulary by using media has been interesting in research. This study tried to analyze the effect of CALL using drill and non-CALL using drill as media on teaching vocabulary to know whether it could increase students' vocabulary retention in Junior High School. Computer-Assisted Language Learning (CALL) has evolved through various stages in both technology as well as the pedagogical use of technology (Warshauer & Healay,1998) Studies show that the CALL trend has facilities students in their English language vocabulary with useful tools such as computer based activities and word processing. Students are able to produce higher quality essays in a student-centered nature and less-intimidating manner (Braine, 1997).In line with this research, it was used quantitative design. This study also purposes to find out to how the students' response towards using CALL. This study was investigated seventh grade students consist of 126 learn. There are A class consist of 30 persons, B class consist of 34 persons, C class consist of 32 persons and D class consist of 30 persons. English vocabulary with CALL using drill and non-CALL using drill. In conclusion, of students' response toward using CALL, the experimental group students are agree that CALL using drill is effective media for learning vocabulary retention, and have positive response rather than control group students. Therefore, teacher should be more creative to teach the students vocabulary skill because it can give the students impact for teaching and learning process.

Keywords: Computer-Assisted Language Learning (CALL)*, Vocabulary, investigating, drill*

INTRODUCTION

Students must be able to demonstrate this productive skill using correct grammar, punctuation, spelling, vocabulary and coherent ideas. This would enable them to communicate well in written language. Besides, students who sit for public exams are exposed to different types of texts such as descriptive, narrative, factual, and recount type essays as part of their assessment requirement. They are also expected to be able to differentiate the types of text taught, to arrange text using their own words and create new ones. In the process of CALL, language learners can use multimedia software, access foreign language documents on the World Wide Web, and communicate with their teachers, fellow classmates, and native speakers by electronic mail. And the development of computer-assisted language learning has created the need and opportunity for investigating the feasibility of multimedia on vocabulary acquisition. Additionally, Teachers have sought many ways to enhance students' teaching vocabulary and computer-assisted language learning (CALL) does have the potential to be used as a teaching/learning tool in improving language skills. As stated by Bush & Terry (1997); Warshauer &Healey (1998); Warshauer & Kern (2000), CALL offers an innovative and effective alternative for language educators. The computers allow students to progress at their own pace and work individually to solve problems. Computer-assisted vocabulary (CAV) is one of the CALL implicational methods that enhance vocabulary. It is devised as a complete system for vocabulary, checking, editing, and text completion. It can accelerate the remembering vocabulary process and the most commonly used software for this purpose is Drill technique. Due to the advancement in technology we are now in the era of Cloud and the main program in this zone is vocabulary software. One of the important components in CALL of drill is drill technique software which has many similarities to drill software. It has an interface like pull-down menus and a toolbar with buttons for common formatting functions. Students can easily invite teachers to view remember to vocabulary in real time to edit and at the same the teacher can view the revision history to check what and how students revised their vocabulary. Nevertheless, it is still questionable if this program will really enhance the students' teaching vocabulary.

The problem above becomes a reference they tend to use the same match words, same content, same sentence structure, and complete sentence, write definitions, and mechanics. Through our observation during vocabulary lessons, we identified that students have difficulties in remembering and developing vocabulary. Students often make mistakes in their choice of words due to limited vocabulary, spell some words incorrectly, and make grammatical errors (wrong sentence structure).

The aim of this research is to find out if Drills can improve vocabulary of students from four (4) class SMPN 2 Sidoarjo. It is also to discover students 'perceptions about using Drills to remember vocabulary and to identify if CALL of Drills is able to inspire students to remember.

THEORY

Computer Assisted Language Learning (CALL)

In teacher-centered learning, students place all the focus on the teacher and the teacher becomes the only source of information. Constructivism is a psychological theory of knowledge which concludes that humans construct knowledge from their experiences (Bowers et al., 2010). Constructivist-based instruction often includes providing learners with skills or support such as modeling, coaching, scaffolding and the teacher's role is to aid the learner in this construction rather than simply providing the information to her or him (Bowers et al., 2010). CALL refers to the use of computer in the teaching and learning of a second or foreign language. CALL may "take advantage of diverse and rapidly expanding spectrum of computer technologies that assist the teaching and learning process." (Richards et al. 1998) Levy (1997) defines CALL more succinctly and more broadly as "the search for and study of applications of the computer in language teaching and learning". This definition is similar to that of Hu Zhuanglin's "CALL refers to the use about a computer in a language teaching and learning program." To sum up, the three definitions include the views help by the majority of modern CALL practitioners.

The field of CALL includes the use of a computer in the language process. CALL applications "include guided drill and practice exercises, computer visualization of complex objects, and computer-facilitated communication between students and teachers" (CAI. 1998). CALL programs aims to teach students in aspects of the language learning process via the medium of computers. Scholars believe that electronic media has become the paradigm to promote student-centered learning where teachers function as facilitators and guides. Many researchers have recently discovered the link between constructivism and technology used. Resnick (1998) argued that computers could become a dynamic part of a constructivist learning environment for learning new ideas and information. In other words, the students would be in control, so he or she can determine what he or she would learn. Murphy (1997) stated that in such teaching and learning environments, the student plays a central role in mediating and controlling learning and teachers serve as guides, monitors, coaches, tutors and facilitators. In order to be effective and current, teachers as facilitators should change their teaching strategies according to student's need and encourage them to read, analyze, interpret, predict and organize the information they get.

Drill

Drilling is a technique that has been used in the second language classroom for many years. It was a key feature of audio-lingual technique which emphasis on repeating structural pattern through oral drill. Matthews, Spratt, and Dangerfield (1991, 210) said that "A drill is a type of highly controlled oral practice in which the students respond to given cue. The response varies according to the type of drill. Drills are used usually at the controlled practice stage of language learning so that students have the opportunity to accurately try out what they have learned.

Here are series of drills which is designed to give beginning EFL students some practice with the structure.

- Backward build-up drill (expansion drill)
  This series of drill is to break down the troublesome sentence into smaller parts. The lecture starts with the end of the sentence and has the class repeated just the last two words.
- A Repetition Drill
  The tasks are to listen carefully and attempt to mimic the lecture's models as accurately as possible.
- Chain Drill
  To give the student on opportunity to say the lines individually and let the students use the expression in communication with someone else, even though the communication is very limited.
- Single-slot substitution Drill
  The series of drill requires more than simple repetition in which the students will repeat a sentence from the dialog and replace a word or phrase the lecture give them. This word or phrase is called the cue which can be a picture.
- Multi-Slot Substitution Drill
  The series of drill is essentially the same type of drill as the single-slot substitution drill. However students must recognize what part of speech the cue word is and where it fits into the sentence for the cues have tobe changed are the subject pronouns
- Transformation Drill
  The type of drill asks students to change one type of sentence into negative or active sentence into a passive.
- Question and answer Drill
  The series of drill sometimes providing the students with situation that require a negative answer and sometimes with situations that a positive one.

METHODS

For this research we have selected the mixed method research design. We used questionnaires as the main instrument for data collection to obtain information from the group of selected students especially on their perception and inspiration. We also collected pen and paper writing samples as well as learning vocabulary samples using Drills and marked them based on a rubric. We would then further analyze the positive and the negative results and make inferences supported by face-to-face interviews data.

The data collection method involved three parts. All the parts were targeted at a group of students to four different classes from the same school. The school is SMPN 2 Sidoarjo. There are A class consist of 30 persons, B class consist of 34 persons, C class consist of 32 persons and D class consist of 30 persons.

Data were collected using three main instruments which are questionnaires, vocabulary test samples and structured interviews. The instrument for data collection to answer research questions 1 and 2 are questionnaires. The structured questionnaires were designed systematically using a Likert rating scale. The closed ended items placed on a four

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point Likert scale gives participants a choice, 1 representing "to strongly agree", 2 representing "agree, 3 representing "to disagree" and 4 "to strongly disagree". These responses were elicited to gain insights into the nature of the study. The participants in this questionnaire are a total of 126 students.

RESULTS AND DISCUSSION

The results are sorted into three sections; each section addresses one of the research questions. The first section answers the first research question: What are students' perceptions about using Drill to learn vocabulary? The second section covers the second research question which investigated if drill software inspires students to remember vocabulary. As for the third and final section, it answers the third research question: Does Drill really improves students' learning vocabulary?

For Part 1, (pre-to drill vocabulary questionnaires) a total of 126 completed structured questionnaires out of 126 questionnaires were obtained (yielding a response rate of 100%). This number is demed sufficient and complete for the use of the research. Participants were given a time limit of one lesson period (30 minutes) to return the completed questionnaires. All the 126 participants returned the completed questionnaires.

For Part 2, (post- to drill vocabulary questionnaires) a total of 126 structured questionnaires were distributed to the population (yielding a response rate of 100%). Participants were given a time limit of 30 minutes to return the completed questionnaires due to time constraint. All students present completed the questionnaires and returned the questionnaires within the given time.

Part 1 (Pre- to drill vocabulary Questionnaires for students)

The first part of the analysis (Part A) looks at students' perception on using drill in English vocabulary. The table below shows the percentage of respondents who selected each option from a total of 126 respondents.

TABLE 1. Students' perception on using drills and computer in learning vocabulary.

	Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
1	I enjoy using Drill during English Lesson.	33% (42)	48% (60)	16% (20)	3% (4)
2	I would like my teacher to use drill more often in our vocabulary classes.	35% (44)	50% (63)	12% (15)	3% (4)
3	I like to use the computer to learn English.	36% (45)	43% (55)	13% (16)	8 % (10)
4	I spend more time learning English when I use the computer than when I use books.	23% (29)	35% (44)	33% (41)	9% (12)

The results show that students have a very positive attitude towards the use of drills in English lessons especially vocabulary lessons as more than 81% of them agree that they enjoy using drill and would like their teachers to use Drills more in vocabulary classes. 79% students agree that they like to use computer to learn English will spend more time learning English when they use computer. Astoundingly, 21% of the students disagree that they like to use computer to learn English and 42% will not spend more time learning English when they use computer. They still prefer to use books to learn English.

TABLE. 2 Students' perception of using the features of Drills in learning vocabulary.

	Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
5	Using Drills in learning vocabulary can help me with my grammar	17% (22)	48% (61)	28% (36)	6% (7)
6	Using Drills in writing can help me with my spelling	29% (337)	48% (61)	17% (22)	5% (6)
7	Using Drills in learning vocabulary classes can help me brainstorm the topic I would be remember about.	17% (21)	56% (71)	24% (30)	3% (4)
8	Using Drills in vocabulary classes can help me research the topic I will be learning vocabulary about.	54% (68)	36% (45)	8% (10)	2% (3)
9	I don't like it when I don't know what to write when I am trying to learn vocabulary my remember using paper and pen.	23% (29)	44% (56)	24% (30)	9 % (11)

Survey Questions 5 to 8 focused on using Drills in learning vocabulary. The results showed that 65 % (83) of the students believe that the features in drills help them to improve their grammar. 77% believe that it can help them to improve their spelling. 90% of the students feel that drills helps them to research about the topic given to them. 67% of the students' state that they do not like it .when they don't know what to remember when they try using paper and pen. However, it was unexpected that 33 % students disagree with the statement. It shows that they do not mind going through the process of brainstorming and forcing themselves to think and remember rather than seeking help from drill software.

TABLE 3. Students' perception of using Drills and computer to edit and to remember their vocabulary.

	Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
10	Using drills software can give me cconfidence to remember my vocabulary bank.	21% (27)	44% (55)	29% (37)	6% (7)
11	Using drills in the English class can help me become an independent learner	60% (76)	15% (19)	21% (27)	3% (4)
12	Using drills can help me to better remember my vocabulary	40% (51)	46% (58)	13% (17)	0% (0)
13	Using drills can help me better revise my brain	15% (19)	48% (61)	33% (42)	3% (4)

Survey questions 10 to 13 looks at students' perception of using drills to edit and publish their work. Results of the analysis in this part clearly showed that 95 students (75%) have a high level of confidence that drills can help them to become an independent learner. More than 80% of the students consider it easier to edit and only 63% consider it helpful to revise using Drills compared to pen and paper. However, there were still a small number of students (36%) who still prefer pen and paper. This is quite surprising in this 21st century where all youngsters should be comfortable and feel at ease with technologies.

TABLE 4. Students' perception of the reliability of Drills.

	Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
14	tend to think more when I am remembering on drills	24% (30)	45% (57)	25% (32)	6% (7)
15	I tend to be more relaxed when I am learning vocabulary on drills	30% (38)	48% (61)	18% (23)	3% (4)
16	Drills cannot be relied on	8% (10)	33% (42)	43% (54)	16% (20)
17	Using Drills in the learning vocabulary class can distract me from staying on task.	15% (19)	52% (66)	25% (32)	7% (9)

This final part of the analysis looks at the reliability of drills. Interestingly, 99 students (78%) stated that they would be more relaxed when they are learning vocabulary on drills while 21% didn't feel the same. The results indicate that 87 students tend to write more when they use

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drills meanwhile 85 students stated that using drill distracts them from staying on the task. From the survey, we can see that 52 out of 126 students feel that drill is unreliable.

Part 2 (Post- to drill vocabulary Questionnaires for students). A post questionnaire was administered after the students completed their pen and paper writing and a learning vocabulary using Drills. This questionnaire aimed to find out if Drills inspired them to remember after getting the experience of learning vocabulary using both methods.

The first part of the analysis (Part A) looks at students' perceptions of the target language which is English to determine students' attitudes towards the learning of English as a second language. The table below shows the percentage of respondents from a total of 126 respondents who selected each option.

TABLE 5. Students' perception on the use of computer and Drills in a vocabulary class.

	Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
1	Using the computer in learning vocabulary class is interesting	44% (55)	45% (57)	11% (14)	0% (0)
2	I feel I've learned more about vocabulary in English from this class than I have from other English classes in which the computer (drills) was not used.	31% (39)	54% (68)	21% (27)	0% (0)
3	feel I get more individual attention from the teacher in the computer vocabulary class than I do in other, non-computer vocabulary classes.	20% (25)	53% (67)	21% (27)	6% (7)
4	I like to use drills better than other ways to remember.	30% (38)	58 % (73)	12% (15)	0% (0)

The result clearly shows that 112 students (89%) feel very positive towards the learning of vocabulary using computer and feel that using computer in learning vocabulary class is interesting and very inspiring. The remaining 14 students didn't like using the computer in vocabulary class. 107 students (89%) think that they have learned a lot more in this vocabulary class compared to what they learned in a normal classroom. Furthermore 92 out of students feel that they are getting more individual attention from the teacher than in non-computer vocabulary classes. 88% students (111 students) like to use CALL of drill better than other ways to write. Only 15 students do not like to use drill for remember.

TABLE 6. Students' perceptions on the reliability of CALL of drill.

	Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
5	I can think of more ideas for my remembering when I use CALL of drill	40% (50)	49% (62)	10% (13)	1% (1)
6	When I use CALL of drill I pay more attention to what I'm remembering vocabulary about.	36% (45)	48% (61)	15% (19)	1% (1)
7	Using CALL of drill makes me less worried about remember vocabulary because I know I can make changes easily.	43% (54)	51% (64)	6% (7)	1% (1)
8	The tools in CALL of drill helped me a lot in remembering vocabulary.	30% (49)	53% (67)	8% (10)	0% (0)

However, surprisingly the 112 students claimed that they can think of more ideas to remember when they CALL of drill but 14 students did not agree to this. 118 students (94%) said that they are less worried about remember vocabulary because they know they can make changes easily if they make any mistakes. Additionally, 84% of the students feel that they can pay more attention to what they are learning vocabulary about when they use Drills. 116 students used the tools in Drills when they remember their vocabulary and feel that these tools had helped them in learning vocabulary remember.

TABLE7. Students' perceptions on the features (apps) in Drills.

	Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
9	When I use drills to match words to definitions, I am more careful about grammar.	35% (44)	48% (60)	17% (22)	0% (0)
10	I pay more attention in choosing the right word when I use Drills.	40% (51)	48% (61)	10% (13)	1% (1)
11	I pay more attention to spelling when I use the computer.	37% (47)	49% (62)	13% (16)	1% (1)
12	I pay more attention to mechanics when I use the computer.	31% (39)	59% (74)	10% (12)	1% (1)
13	I remember to vocabulary longer drills.	26% (33)	52% (65)	20% (25)	2% (3)

The result from the survey questions 9 to 13 shows the majority of students were careful with the grammar, word choice, spelling and the mechanics when they wrote using Drills. Additionally, 83% (104 students) said they would be more careful with the grammar they use and more than 88 % said that they pay attention in choosing the right words. 86% of the students stated that they pay more attention to spellings when using the computer. In fact, 98 students (78%) were able to remember longer drills while 118 students (94%) paid attention to the mechanic of the vocabulary.

TABLE 8. Student's perception on using Drills in future.

	Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
14	Using drills has helped me to become better at vocabulary in English.	35% (44)	53% (67)	12% (15)	0% (0)
15	I would recommend that other students learn to use drills to remember their vocabulary in English.	39% (49)	44% (55)	17% (22)	0% (0)
16	I plan to continue using drills to remember vocabulary after this class is finished.	37% (47)	44% (56)	18% (23)	0% (0)
17	I would like to do another remember if I could use drills.	27% (34)	53% (67)	17% (22)	2% (3)

The Survey questions 14 to 17 show the majority of students will use drills in future to do their remember vocabulary. Furthermore, 83% would recommend drill to other students and encourage them to use it to remember. 104 students plan to continue to use drills to write their essays and 101 students would do another essay if they could use drills. 88% students (111) stated that Google Documents has helped them to become a better writer. However, 22 students stated that they would not recommend using drills to other students to remember their vocabulary in English.

CONCLUSION

The findings revealed the majority of the participating students favor computer technology in their learning vocabulary class specifically using drills. It is clear that CALLS of drill plays an important role in student learning. It is the tool that supports students in learning without being confined to a particular time and place. Students can increase their knowledge by comparing two types of a data thus, increasing understandings of how sentences should be corrected. This was evident in the questionnaires answered by the students. There was even a vast difference in the way they perceived the usefulness of the Drills as compared to doing learning vocabulary in class. Also, there was a significant improvement in the computer based learning vocabulary task as compared to the in-class.

The research can be conducted on the effectiveness of classroom English and collaborative vocabulary via CALL using Drill in motivating students. Since the majority of the students in this study felt that learning through technology has improved their quality of English, then getting them to work together beyond the classroom environment would be much easier, time-saving and facilitate students' learning. Other educational technologies can also be used to compare with CALL using drill to investigate students' motivation level. Students can acquire lots of support when technology is used more in language classrooms. However, teachers must also remember that students still prefer a balance between the use of technology and classroom teaching so blended learning would be another teaching method that can be explored further to enhance language teaching and learning vocabulary.

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