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Students' cognitive engagement through *educard* in learning vocabulary

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Abstract - This study was investigating the students' cognitive engagement in learning vocabulary through Educard media. The objectives of this study were to find out the way Educard facilitates the students' cognitive engagement in learning vocabulary through Educard and students' responses. The participants of this research are five students of eighth grade in one of junior high school. This study used a qualitative approach. The data were collected through interviews with five students of eighth grade and documentation. The research result showed that the students are facilitated by using Educard as learning media to learn vocabulary and engage them cognitively. The students experience many kinds of cognitive engagement while using Educard to learn English vocabulary including self-regulated learning, resource management, recipients, and task focus. Moreover, Educard builds them cognitive activities in learning vocabulary.

Keywords: educard; students' cognitive engagement; vocabulary mastery; language learning

1. Introduction

Vocabulary plays an important role in learning any language as well as a foreign language. In order to communicate well in a foreign language, students should learn an adequate number of words and should know how to use them accurately (Huyen & Nga, 2003). Teaching English vocabulary in the English as a Foreign Language (EFL) context has several problems. In Indonesia the teacher gives the vocabulary, tells the learners to write it down in their notebooks, and then, for the next meeting, they have to memorize it. This traditional way is quite boring even makes English language lessons to the learners (Wulanjani, 2016). Moreover, students usually feel bored quickly as teachers often use conventional methods of teaching, such as teachers demonstrate by writing material on the board in front of the class, then the student listens the explanation is complete and then continues the exercise, with the reasoning that a teacher is only as an instructor (Zou et al., 2018). That's why, student engagement is also critical for teachers with the time-to-in-time input they need, determining how well their attempts to inspire and support students perform during the learning process. It means not only the teachers to be an instructor, but they also have to give feedback by motivating the students during the teaching and learning process so that they know how to improve students' ability (Sesmiyanti, 2016).

Engagement in learning is essential in maximizing the full learning potential of the students. Fredricks et al (2004) identified three types of engagement such as behavioral engagement, emotional engagement, and cognitive engagement. An earlier study conducted by Adlom (2019) conducted research about students' perceptions on using educard as a learning media to learn grammar tenses and he explained there are numerous studies related to media use in English learning. Furthermore, in order to learn vocabulary, this media is a pack of cards or flashcards. Based on Rismanti's (2017) study, there is a positive effect in teaching English vocabulary using flashcards for dyslexic students. Morover, Lilis (2019) attempts to find out how Educard can boost student SMP Shalahuddin Malang's grammar tense mastery. The result showed that Educard's learning media can help students learn grammar, and after using Educard they got significant improvement. Previous studies have contributed to the idea, information, and theory on using media for vocabulary learning. The other research about educard was conducted by Adlom (2019) that investigated the experience of students in learning grammar tenses using educard as learning tools, The

result showed that educard has positive responses to help students learn grammar easily. Therefore, the research focuses on the cognitive engagement of the students in learning vocabulary through Educard. It is hoped that the results of this research will be helpful to teachers and students as they provide a way to know the cognitive involvement of students in learning vocabulary through Educard.

2. Method

In order to answer the research questions of the study, the design of the qualitative research study was applied. Gay et al (2012) explained that the purpose of qualitative research is to understand the phenomenon of the participants involved in the research. In other words, this form of research design offers insight into a specific issue and promotes the creation of ideas, as well as the exploration of the propensity of thought, opinion, and even the deepening of the question. Creswell (2007/2014) describes that the descriptive qualitative purpose is to examine a comprehensive phenomenon in the field, such as participants, locations, and events in the sense of a qualitative approach.

Descriptive quality is research designed to represent respondents in an accurate and detailed manner. This type of method is all about describing and exploring the participants who are involved in the study. In addition, a summary and clarification of the views, opinions, and definitions in a particular sense may be given for this form of process (Wu & Volker, 2009). In addition, one characteristic of the data collection of this approach is to describe the opinion of the participants by appealing their opinion.

The research site of this study is Junior High School in Karawang The reason for choosing a junior high school is the students have a better memory than elementary school students and they are able to tolerate various forms of learning media very well. Participants are 5 out of 8-grade students. All participants will be chosen from the class that the teacher suggested and would like to learn English. The students will be asked to participate voluntarily in this study.

In this study, the researchers obtained the data by means of a questionnaire, an interview, and documentation. The questionnaire is designed to find the student's response to the use of the educard in vocabulary learning and the cognitive involvement of students. The interview was used to learn about the cognitive participation of students who have encouraged their learning vocabulary by giving their opinion on the educard. Documentation was used to picture and to collect students' work when playing the educard and studying vocabulary.

The researcher needs a data processing technique before the data are ready to be used. Miles et al (2014) points out that the analysis activities consist of three parallel activity streams: Data Collection in which the data were collected by the researcher through a questionnaire, interview, and documentation related to cognitive engagement of students through educard in learning vocabulary. Data reduction is conducted by the researchers has been carefully selected on the basis of the researcher's needs. Then, researchers presented an analysis of students' cognitive involvement in learning vocabulary through the educard and their reactions to it. Furthermore, researchers did the verification of data and concluded on the basis of the procedures that were carried out through questionnaires, interviews, and documentation.

3. Results and Discussion

This segment addresses students' cognitive engagement to using Educard as a learning media in English vocabulary. The researcher used the questionnaire to identify and evaluate the cognitive involvement of students. The subject was taught to 8 students at SMPN 1 Tirtajaya. The researcher collected the response of the students to the questionnaire given to them. There are four aspects of students' cognitive engagement based on Corno & Mandinach's (1983) theory: Self regulated learning, Task focus, Resource management, Recipience.

Based on the data finding, the researchers concluded that the self-regulated learning dimension were 60% of students agree that they pay attention tutor when applying the learning media, and 40% very agree that they always pay attention to the learning by using educard. Then, 60% of students are very agree that they should read the educational guidelines step by step and 40% agree. Furthermore, 80 % of students agree that they can recognize what the tutor has conveyed with the knowledge they have gained from the teacher about vocabulary, and 20% very agree. The other data showed that 80% students agree that they can differentiate between what they need and what they don't need in terms of vocabulary, and 20% very agree. the students agree that they are searching for something they learned with the teacher and understand educard's vocabulary delivered by the tutor achieved 80%, and 20 percent agree very well. 60% of students agree that they are connecting their knowledge to new knowledge when learning vocabulary when using educard, 20% very agree, and 20% disagree. 100% of students agree that they can arrange what tasks they are going to do with the educard tutor. 60% of students agree that, having understood the guidelines for

playing flashcards, they were able to arrange what they had to do in order to win the game, 20% very agree and 20% disagree. 100% of students agree that they can prepare for the educard game before the vocabulary tutor performs the test. 80% of students agree to repeat the vocabulary they learned when flashcard was used, and 20% very agree. 40% of students very agree that they have continued to practice so that they understand and know the vocabulary in flashcards, 40% agree and 20% disagree. 80% of students agree that they always check if something goes wrong or if there is an error playing flashcard to learn vocabulary 20% disagree.

On the basis of the above result, the second aspect was the aspect of resource management, 60% of students agree to use more vocabulary learning strategies when educard is used both inside and outside the classroom, and 40% very agree. 60% of students agree that they are better able to overcome vocabulary learning difficulties when educards are used both inside and outside the classroom, and 40% per cent disagree. 80 percent of students agree to ask the teacher or other friends to get more information when the educard is used and 20% very agree. 80% of students agree to ask tutors or classmates when they do not understand or encounter vocabulary difficulties in the classroom when they learn vocabulary using flashcard, and 20% very agree.

Based on the results, the Recipient aspect got 60% of students agreed that they have short-circuited vocabulary because the tutor provided a variety of instructions and guidance on learning vocabulary, 20% very agree, and 20% disagree. 100% of students agreed to summarize or review what the tutor has said about the vocabulary that has been published both in the classroom and outside the classroom.60 % of students agree that they can arrange what they're going to do first by separating work one and putting it back together again. (Example: they can learn vocabulary about pronouns, and they want to learn more vocabulary about activities, then put them together again when they learn to compose sentences), and 20% agree very much. 60% of students agree that they can monitor the vocabulary learning tasks through educards, and 20% very agree.

In general, research findings can be concluded that students have provided positive responses to students' cognitive engagement with Educard as a learning tool for learning English vocabulary in four areas: self-regulatory leaning, resource management, recepience and focus.They liked to use Educard as a learning media to learn vocabulary, they thought that Educard could manage their vocabulary skills, and they were interested in using Educard. Educard 's learning media have been beneficial and can encourage students to learn vocabulary. Lastly, they supported the idea of using Educard as a learning medium to learn English vocabulary.

This section presents the findings of the data and describes how the edu-card facilitated the cognitive engagement of students during the English vocabulary learning process. The data was obtained from an interview with five students who had joined and chosen. Interview questions covered all forms of cognitive interaction of students, including self-regulatory learning, source management, recepience and task focus, and all aspects of them.

Acquisition: Self-regulated learning is the highest form of cognitive participation, so that self-regulated learning takes a significant part of this study in addition to students engaged in cognitive vocabulary learning (Corno & Mandinach, 1983). According to Corno et al (1982) Self-regulated learning there are five components, such as alertness, selectivity, connecting, planning and monitoring (Corno & Mandinach, 1983). The table showed two general classes of information processing widely recognized in the acquisition (alertness and monitoring) and transformation (selectivity, connecting, and planing) of literature (Anderson & Bower, 2014).

Acquisition processes can be viewed asmetacognitive to the degree to which they regulate processes of transformation, such as the students took information concernly about educard from surroundings (can be tutor and friends). Besides, The transforming is where the processes also have both metacognitive processes and cognitive aspects in here the acquisition also takes a part to control the transformation processes of selectivity about the information of educard, connecting new information to that available in students' memory which they have had with the teacher in the school, and planning to use specific performance routine in learning vocabulary through educard (Brown, 1977).

Here is the sample interview of Alertness. According to Ravindran et al (2005) it can be inferred that attention explains that students' performance goals are based on learning vocabulary by paying attention to the tutor because self-regulation is described as a systematic way of achieving the goal of human beings and understanding Educard, even when other students are trying to confuse them but are doing well (Fredricks et al., 2004).

Sample of **Alertness***"**Yes, I can** but still couldn't speak fluently and don't understand a bit, the guide explains this game must be shuffled before playing like a card game in general. For example '**the cards are all shuffled"*** it described students can read the educard guidance even though they read little by

little and some of them still don't understand the meaning of the educard. It has been shown that they often have cognitive behaviors described by alertness as receiving incoming stimuli and tapping or collecting information by example by reading Educard's guidlines line by line (Corno & Mandinach, 1983). The data of **Selectivity***"Yes side by side. Yes,* ***open books that are studied at school with Miss Tia*** *and open books that have been learned* ***out of the school with Miss Herna****"* (Corno & Mandinach, 1983).

Selectivity is discriminating between the stimulation that also the process of controlling the transformation that is available in memory, of course the transformation process has cognitive and meta-cognitive aspects for the example that they see formed in the context of goal and content such as students can recognize the knowledge they have learned in the classroom with the teacher and they mentioned the name of the teacher, and they also portrayed the form of an Educard game that was given to the tutor so that they could play well. **Connecting** (Corno & Mandinach, 1983) links familiar knowledge with incoming information in order to get connected by new knowledge from the old news they have about educard like*"what has been learned is* ***reopened and then studied deeper*** *then remembered.* ***It's a little the same, miss****, for example, from the subject*meaning that she has linked the knowledge in learning vocabulary by means of Educard. There is also p**lanning (**Corno & Mandinach (1983) self-regulatory learning planning is about organizing a task approach sequence, ***words first then the colors*** shows that students can organize them.

Alertness Selectivity connecting planning monitoringwould do about the task of arranging the vocabulary of the educard to depend on what the tutor has given them. The last of self regulated learning is **Monitoring (**Corno & Mandinach, 1983) in self-regulated learning they also have to monitor their knowledge to their stimuli and transform their cognitive engagement *"I easily, just enough to* ***remember a formula*** *that has been learned (JH 12)"* so that the result shows that they can track what they remember while playing educard while learning vocabulary, which is why they can build their transformation, such as planning, selectivity and connectivity.

Unusual use of information acquisition and meta-level planning during vocabulary learning tasks allows students to perform the remaining processes such as selecting the card with the related vocabulary until they finish correctly arranging the card by obtaining help from other sources. This is a highly functional learning technique that helps students to improve perceptivity and meta-cognitive finesse in the Educard game (Corno & Mandinach, 1983). Besides the students always have intention to organize then may be completed with assistance from other (asking for help) and they try to figur out the complex problem in educard' task (solving problem) (Baker, 1998).

Problem solving is an important one in learning vocabulary to get the learning goal such as to win the game or to finish the task in educard' game which is focus to their performance while playing the educard (Niedelman, 1991). Problems solving are commonly considered the most critical cognitive activity on a regular basis and the professional context (Jonassen, 2000). *"The strategy is to* ***get rid of what is not needed*** *and if something is needed is not discarded. The way to win is to try not to give up (JH 14)"* We also know that learning activity is always a problem, the problem comes because we want to figure out and understand the content. Students find problems while they want to learn vocabulary in an educard, as part of a class of words, and more so they need to overcome them by searching for an external and an internal source *"When I have difficulty playing vocabulary through educard I* ***will ask my tutor or friend*** *(IM 15)"* (Corno & Mandinach, 1983).

Recepience is in which students react passively with a little mental investment, often to instruction that has short-circuited their self-regulation cognitive process(Corno & Mandinach, 1983). recepience is part of cognitive engagement, defined as the short-circuited learning process *"Yes,* ***heed the instructions****. Arrange verb 1, verb 2, continue to compile the words especially the formula (CN 19)"* which tells us that short-circuited intructions that have been given to students because the intruction leaves an implicit message that classroom learning is rote or associational;rather than being closer to problem-solving and mental elaboration, that's why, when learning vocabulary through an educard, they have to remember some instruction, and the tutor repeatedly gives them a way to manage the formula card and much more (Corno & Mandinach, 1983).

The final form of cognitive engagement to be examined is the focus of the taskwhere students use task-specific planning and self-monitoring, for tasks where transformation of information is required rather than acquisition (Corno & Mandinach, 1983). According to Corno & Mandinach (1983) the focus of the task is where the process of selectivity, linking new information to existing knowledge, and task-specific planning are featured, then here the task-specific planning in the interview reslut above shows how students manage their tasksand plan it such as *"Manage it, the formula will be* ***remembered and read at home*** *learned at home and wherever later when playing I can play I can win the game. I* ***combined the learned***

vocabulary *with the word class and then* ***arranged it*** *when playing educard according to the formula (JH 21)".*

Actually Monitor has been included in self-regulatory learning, but what keeps the researcher focused, including on task monitoring, because the monitoring of the task focus is not really an ineffective environment that can be said to reflect alertness and monitoring, but the focus of the task can be promoted by instruction, so that the student may be less likely to hesitate and over-monitor their performance on complex issues, which again could lead to increased self-efficacy, which is why the theoretical self-efficacy points to self-regulatory learning processes such as selectivity, goal setting, and self monitoring (Corno & Mandinach, 1983). *"I always* ***monitor my work*** *and* ***make sure my vocabulary*** *is correct by looking at the notes learned and then reviewing what will be learned (IM 20)".*

CONCLUSION

Cognitive engagement is valued by the community of education and is widely held to facilitate learning, in addition to facilitating the learning vocabulary of students through Educard. The present study attempted to contribute to our understanding of this construct by locating empirical evidence of its occurrence within the learning media Educard and exploring the relationship between forms of cognitive engagement and learning English vocabulary activities. Based on the previos chapter, findings of the research result, it shows students are facilitated by using Educard as learning mdia to learn vocabulary and engage them cognitively. They agree that they have a different learning startegy while learning using Educard and they have various startegy which included cognitive activities.

To conclude, the stuents give positive response on using Educard in learning vocabulary. The student of eight grade of SMPN 1 Tirtajaya support this idea and agreed that Educard has been engaged them cognitively in learning vocabulary. Using Educard can support the students engaged in their leaning on English vocabulary. There are many kind of cognitive engagement has been engaged in their learning while using Educard to learn English vocabulary such as self- regulated learning, resource management, recepience and taks focus. Moreover, Educard build them cognitive activities in learning vocabulary. Lastly, students can finding the best strategy to find the best way to increas their vocabulary mastery by using Educard and make their learning enjoyable and playful.

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