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The Impact of Pictorial Words Mapping Techniques on Students' Vocabulary Size

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Abstract

The aim of this study is to identify the impact of Pictorial Words Mapping Techniques on Students' Vocabulary Size. The subject taken is 20 students of one state vocational school in Samarinda,East Kalimantan. This action research with pre-test and post-test administered. Instrument of the test is given a picture by identifying the words that containing on the view. The collection words that have been identified are noun, adjective and verb. Result of pre-test and post-test is significant correlated with 0.00>0.05 (24,61). The smallest percentage is verb (12.75%), the highest is noun (51.96%) and adjective (35.29%). And treatment of pre-test and post-test is also related significantly. From 20 students, only 3 students whom are able to write sentences and simple paragraph correctly. However, students still have difficult to identify the objects and mastery the words. Teaching English is facilitated by media is one of to develop of vocabulary building.

Keywords: Pictorial Word Mapping, Vocabulary Size

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INTRODUCTION

Since vocabulary is one of the English components which cannot be separated to those students who learn English as a foreign or a second language, vocabulary is widely recognized as one of the most important components of language proficiency, and it serves as the foundation upon which language skills are then developed and be effective in communication. How much essential as integrated part in learning a language, [1] confirms that, without grammar very little can be conveyed, but without vocabulary nothing can be conveyed. In more details, Taylor, [2], clarified that the development of a sufficient vocabulary is essential for successful foreign and second language learners because without an extensive vocabulary, they will be unable to use the structures and functions they may have learned for comprehensible communication. It is exactly stated that the development sufficient vocabulary of is to refer to the students' acquisition in learning a new language, or it is more shorter views to refer to how to mastery vocabulary in which they can use as skill for their communication.

Extensive learning vocabulary is also unexpectedly influencing how much exposure of the students had since learning vocabulary as a foundation, because [3] state that the term incidental vocabulary learning, stating that students can learn vocabulary through repeated exposure to those vocabulary items in various contexts, as is the case in native language acquisition. In relating to language acquiring, vocabulary learning will be driven to acknowledge to mastery of the words as well vocabulary size they learnt, because vocabulary mastery refers to the quality of the students comprehending a text or speech script that can be produced both as a receptive and productive skills. In other words, mastery vocabulary cannot work well without having adequate vocabulary size, because vocabulary is a foundation and as one of important component of language proficiency, so it's affected all the students' language skills of English Foreign language.

On writing skills [4], [5], [6], on reading comprehension skill, [7], [8], on speaking skills, [9], [10], and on listening skills [11], [12]. Then, [13] has argued that for 98% coverage of a text, 8,000 to 9,000 words are needed for understanding a written text and a vocabulary of 6,000 to 7,000 words for comprehension of spoken text. However, the amount of these words is for high adequate vocabulary and specifically for university students [8], On the contrary, for having medium adequate vocabulary, or is equal to senior high school students 'words, and it treats the leaners who required to be able to speak and write in 2000 words as research found by [14], however, this category was weak. Even, [15], claimed that learners need to have at least 1000 to 2000 words which enable them to speak and write normally. And to basic oral communication, words used is as stated by scholars like, [16], claimed that words at 3000 level and 5000 level are

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considered vital for basic comprehension in English as a foreign and second language. Moreover, [17], of the 2,000-3,000 most frequent word6 as soon is vital for the language learner to communicate orally and in written form in the foreign language. Because they are at the level of English at secondary school, the having acquired expectation words is based on Curriculum of Diknas which confirmed that middle-level readers (high school) must reach 1500-3000 family words. In line with this, several research has done, however the level of vocabulary size is not much significant result indicated. In other words, it is concisely which will be the based vocabulary level for EFL senior high students should have at least 1000-3000 words which can be used in daily communication, read a text book as well as write an essay in simple ways**.**

Some studies to language leaner' vocabulary size to mind mapping is found less in Indonesia, particularly focus on vocational high school language leaner' vocabulary size, [18] research results are contrasting that technical learning vocabulary size to mind mapping is not achieved maximally. To compare of the studies on acquiring of vocabulary size that has been done in many countries which also indicated medium to high result. *First,* [8] in China, the smallest vocabulary size among the students was 4000-word families and the largest vocabulary size was 12200 words families. *Second,* [14] found that the students could not reach the targeted 3000-word level which was the threshold level for this study. In fact, the average vocabulary size was below the 2000-word level. *Third*, [19] proved that research in China to the minimum scores were consistent across some the students' levels which obtained full scores at Level 1 (2000 level). Furthermore, [20] clarified that senior high school graduates the level is achieved at the 1st 3,000 words only. Averagely, in Indonesia, other researchers regarding to indication of vocabulary size' result found is neither satisfactory nor unsatisfactory ([21], [22], averagely is 1000-3000 words achieved. In other words, it is automatically impacted to the students unable to express their ideas orally and verbally. Furthermore, in terms of studies dealing with the use of mind mapping research in senior high school which focus on vocabulary mastery, there are many studies has been carried out and have positive significant increased, such as; [23], English words and which found that students who earned a perfect score increased to 70%, [24] investigate in overall survey of mind mapping technique from elementary to senior high school students of vocabulary mastery and shown very satisfactory result. Many studies that have been conducted previously which focus on multiple models and approach which aimed to increased student' vocabulary size, however, it's rarely found that the study which contribute to the pictorial mind mapping to vocabulary size and its vocabulary mastery. So, this study explores how the impact pictorial mind mapping techniques on students' vocabulary size and their vocabulary mastery.

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LITERATURE REVIEW

Mind Mapping Technique

Mind mapping is introduced famously by British psychology author, Tony Buzan [25] states that mind mapping is an effective graphic thinking tool to express divergent thinking, it is simple and very effective, is a practical thinking tool. Meanwhile, [26] also confirms that it helps to students' output using a visual tool by combining ideas, words, and images into a single concept. Buzan in [26] which hypotheses that brain which has two parts and the left one is responsible for words, logic, sequences and analysis while the right side carries out tasks that are associated with colours, emotion, so processing productivity will be increased which translates into greater retention. In relation to mind mapping by assisting a picture, theory found by [27]s Dual Coding Theory (1974) is relevant to this study. He defined that vocabulary items are represented through both verbal and nonverbal codes. The written word provides a verbal representation, while the picture provides a visual representation. The integration of these representations may create additional associative connections that support learning and memory. the four target-array conditions should be picture-picture, word-picture, picture-word, and word-word, in this study is applied picture-word.

Vocabulary Size and Mastery

In learning language, we are live with words, [28] and how much important the words we learn, [28] which confirms that nothing is more important to language than words which carry the meaning and are permanently stored in a speaker's mental dictionary, or lexicon, they are the fundamental building blocks of communication. The journey process of the students' exposures the language learning will be proved by how much vocabulary size they use through verbal and nonverbal communication. Learning vocabulary proved they had been learnt before will go to how ability to use a varied vocabulary that is essential for communication, cognitive growth and academic achievement [29]. In related to the students' vocabulary development which will be related to the students' vocabulary knowledge. Referring to vocabulary knowledge, [30] explains that vocabulary knowledge is something connected to two dimension that is breadth and depth of vocabulary knowledge. Breadth vocabulary knowledge is regarded as vocabulary size, i.e., the quantity of words that a learner at a certain level knows [16], while depth of vocabulary knowledge vocabulary knowledge refers to the quality of knowing a word, which means learners should know more than a superficial understanding of a word's meaning. Considering the importance of vocabulary knowledge on the students' vocabulary development, finding ways to improve

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learners' vocabulary knowledge is worthwhile. In other words that vocabulary development contributes directly to the growth of vocabulary mastery, as what and how the students are exposed to new words through reading, listening, speaking, and writing activities, they gradually increase both the number of words they know (vocabulary breadth) and how well they understand and use those words (vocabulary depth).

Teaching Vocabulary in Senior High School In Indonesia Context

English language teaching in Vocational High Schools (SMKs) in Samarinda, Kalimantan Timur has shown continuous improvement toward more effective and refined instructional practices. Various teaching methods and techniques have been implemented to enhance students' language learning experiences. For example, students are encouraged to interact with their peers and teachers through short dialogue activities. They are required to perform these dialogues in front of the class, allowing them to practice their speaking skills in a communicative context. in taking exposure each of language skills, the students also engage in several language-learning activities, such as writing short stories, creating dialogues, and presenting in front of the class.in other words, the student 'language skills has been developed well by exposure many integrated materials obtained from English vocational module used of. Despite these improvements, several challenges remain in the implementation of English language teaching at vocational schools. These challenges include students' limited vocabulary knowledge, their dependence on teacher guidance when it presents dialogues, and their lack of confidence in engaging in free conversations or spontaneous speaking activities in front of the class. One of the primary factors contributing to these difficulties is the inadequate vocabulary size possessed by many students. Limited vocabulary knowledge negatively affects their overall English language proficiency and their ability to develop the four language skills. Vocabulary mastery or is mainly correct assumed to vocabulary knowledge, because it should be an essential component of language learning and must be acquired by students. As stated by [31], people's lives are greatly influenced by their vocabulary knowledge, which plays an important role in their future development and success. More specifically, in the context of learning English as a foreign language, [32] argued that students' vocabulary size is a crucial determinant of their English comprehension and significantly affects their proficiency in the four language skills: reading, listening, writing, and speaking.so, vocabulary size is absolutely related to vocabulary mastery.

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RESEARCH METHOD

This study is applied action research which is aimed to analyse how applied pictorial words mapping techniques to students of vocational high school in Samarinda, Kalimantan Timur and its impact. The steps are; pre-test, treatment and post-test. those steps should be done accordingly before giving post-test. tool of analysis is based on [33]' Theory and [16]' Theory. First, the students give pre- test in order to know the student's vocabulary size by giving the pictures. The students are also assisted by giving cover-paper which is already designed by blank branches-mapping, it is aimed to help the students focus on the pictures given. The media as an instrument is a picture that with colourful and consisted of the character; people, animal, view and show an activity in certain circumstances. They are asked to fill the blank branches-mapping to what kind of word that can be identified. Then, the vocabulary size is counted. Second, it is then given treatment. Here, it explained what is the mind mapping related to pictures, and what she/he should do to the activity of the pictures. The students are also given how to connect one word to other words, before writing the sentences or a simple paragraph. The students are also introduced part of speech (noun, verb and adjective) found on the pictures. Third step is to give post-test.

RESULT AND DISCUSSION

This section is presenting research result of the impact mind mapping techniques on students' vocabulary size and vocabulary mastery. The following is Tabel 1, explained the result of pretest and post-test. Based on the Table 1 which indicates that mean score of Pre Test and Post test is 24,61, with SD 37.23 (N-19), however t-count is lass (-6.61) than sig-t (0.05). because SD is hinger than mean score and it is related significantly.

Tabel.1 Result of Pre-test and Post-test

Paired Samples Test									
			Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. D	Std. Error Mean	95% Con.Inter of the Diff				
					Lower	Upper			
Pair 1	PRETEST 1-	-24.60526	16.22890	3.72316	-32.42734	-16.78318	-6.609	18	.000

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	POSTTES T2								

In order to know how much correlated of those terms, that can be seen at Table.2 Correlation of Pre-test and Post-test

Table.2Paired Samples Correlations

N			Correlation	Sig.
Pair 1	PRETEST1 & POSTTEST2	19	.277	.252

From the result, the significant correlation is 0.277 which is more than significant value of 0.252. So, it is then concluded that vocabulary size' achievement of the students is significant correlated. Actually, at the Tabel.3, show the fair increased of the student's treatment result of vocabulary size test. Pre-test is 43.59 and post-test is 68.58. The result is indicated increased. Tabel 3 Result before and after Pre-test and Post-test

Table 3.Paired Samples Statistics

Mean			N	Std. D	Std. Error Mean
Pair 1	PRETEST1	43.9737	19	11.83741	2.71569
	POSTTEST2	68.5789	19	14.84762	3.40628

In order to see the percentage of total score of the vocabulary size (words) can be seen below at Tabel.4;

Tabel. 4. The Students' Vocabulary size

	Pre-test		Post-test	
Noun	154	57.46%	265	51.96%
Adjective	104	38.81%	180	35.29%
Verb	10	3.75%	65	12.75%

Actually, there is a challenge to count the students' size of vocabulary, this result is far from perfect somehow, instead the previous score which indicated increased. Based on the result

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analyzing, the impact of pictorial words mapping techniques on students' vocabulary size and its vocabulary mastery, several important findings can be drawn. *First*, actually, in analyzing students of vocabulary size which cannot be separated to how she/he is able master her/his vocabulary, it is then they are also to give highlight by asking them to write several sentences, the words are based on the identified-words list and for those who are able to write more than their lines sentences, she/he tried to elaborate to simple paragraphs. Among from 20 students, there is only 3 students who is able to write correct sentences. [19] research result (2020) indicated is significant impacted to vocabulary size and text length, however it is contradiction to this study 'results. *Second,* from pre-test and post-test result indicated that part of speech is known by the students are, noun, adjective and verbs, mostly is noun (51.96%), followed by adjective (35.29%), and verb (12.75%). The amount of word list of verbs is little finding. It is what. [34] argues that concrete nouns tend to have a more transparent relationship to the entities they refer to, whereas verb meanings are more linguistically and relationally structured. There are many interpretations meaning of verb indicated before they decided what classification of verb is. *Third,* result of pre-test and post-test is related significantly by having value difference is -16.78 with t count is (-6.61) less than 0.05 and result pre-test and post-test treatment is indicated significant corelated by the position of pre-test is 43.59 and post-test is 68.58. and the progress of the students identifies the word from the picture before and after indicated increased, as what [20] Nation and Beglar (2007) state that ideally in order to know how much vocabulary learners know and to compare vocabulary knowledge across the learners, pre-test and post-test is conducted to measure the students' vocabulary knowledge.

CONCLUSION

In conclusion, the first is result of pre-test and post-test is related significantly of the impact of vocabulary size of pictorial words mapping techniques to students of vocational high school in Samarinda, Kalimantan Timur, because t count is -6.61/0.00 less than 0.05, it is significant related. Second, verb is the smallest types of part of speech identified by the students (12.75%). Third, result pre-test and post-test treatment is indicated significant corelated by the position of pre-test is 43.59 and post-test is 68.58. However, vocabulary mastery' score is also far from significantly identified. And vocabulary size as what Nation' theory is also not achieved as well as Curriculum Diknas (2024). Students still have difficult to identify all the object from the pictures. The instructional objective in teaching learning, particularly in teaching English, teacher will give much more focus how to development of vocabulary building and as well as giving

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pictures which have consisted of many words and action. It gives much attention to practice English as much.

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