

## THE EFFECT OF 'TIE-N-THROW ME' ON VOCABULARY SIZE: AN EXPERIMENTAL STUDY AT THE FIRST YEAR STUDENTS OF MAN 2 PRAYA IN ACADEMIC YEAR 2016/2017

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### Abstract

This research deals with a familiar problem faced by the first year students of MAN 2 Praya in academic year 2016/2017, namely the lack of English vocabulary size. This problem led the study to adapt a principle in memorizing a word as a game which was named Tie-N-Throw Me that could transfer the lexical items into Long Term Memory (LTM). A game is not only just to make students fun, but also useful in line with transformation into LTM. Therefore, this study had three research problems: (1) the effect of Tie-N-Throw Me on vocabulary size, (2) the reason of such a game effective, and (3) the difficulties faced by students in playing it. The methods used in this study were quantitative and qualitative. The samples in this study were 56 students that were homogenous for both vocabulary size and memory. Then, the sample were divided into two groups: experimental group was treated by Tie-N-Throw Me and control one was with drilling. The T- test was 3.935. It was higher than 2.021 for the df 56-2. Thus, Tie-N-Throw Me was effective on vocabulary size. On the other hand, qualitative data showed that the students built mental representation by imagining the association they made where having mental representation is to support to remember the words. Qualitative data discovered that students were difficult to make association and discover a word similar sound with Bahasa. As the conclusion, Tie-N-Throw Me was effective on vocabulary size. However, it was hard for students to make association and to find a similar lexical item sound.

**Kew words:** Vocabulary, Tie-N-Throw Me, and Long Term Memory

### Abstrak

Penelitian ini berkenaan dengan permasalahan yang tidak asing lagi bagi siswa kelas 1 MAN 2 Praya tahun akademik 2016/2017, yaitu kurangnya kosakata Bahasa Inggris. Masalah ini menuntun peneliti untuk mengadaptasi sebuah prinsip mengingat kosakata sebagai sebuah permainan yang dinamakan Tie-N-Throw Me yang bisa mengirimkan kosakata menuju ke memori jangka panjang. Sebuah permainan tidak hanya menjadikan siswa senang, namun juga berguna dalam hal pengiriman ke memori jangka panjang. Oleh karena itu, penelitian ini memiliki tiga permasalahan penelitian: (1) efek Tie-N-Throw Me pada kosakata, (2) alasan permainan tersebut efektif, dan (3) kesulitan-kesulitan yang dihadapi siswa ketika memainkannya. Metode yang digunakan pada penelitian ini adalah kuantitatif dan kualitatif. Sampel pada penelitian sebanyak 56 siswa yang relatif homogen pada taraf kosakata dan daya ingat. Selanjutnya, sampel tersebut dibagi menjadi dua kelompok: kelompok eksperimen yang diperlakukan dengan Tie-N-Throw Me dan kontrol dengan drilling. Nilai T-test adalah 3.935 dimana ini lebih besar dari 2.021 untuk derajat kebebasan 56-2. Jadi, Tie-N-Throw Me efektif sebagai permainan kosakata. Pada sisi lain, data kualitatif menunjukkan bahwa siswa tersebut membangun gambaran *mental* dengan membayangkan asosiasi yang mereka buat dimana dengan membangun gambaran *mental* akan mendukung dalam mengingat kata-kata tersebut. Data kualitatif yang lain adalah bahwa siswa kesulitan membuat asosiasi dan menemukan kata yang mirip bunyinya dengan Bahasa Indonesia. Sebagai kesimpulan, Tie-N-Throw Me efektif untuk permainan kosakata. Namun, siswa menemukan kesulitan saat membuat asosiasi dan menemukan kata dengan bunyi yang serupa.

**Kata Kunci:** Kosakata, Tie-N-Throw Me, dan Memori Jangka Panjang

## INTRODUCTION

A problem that is so familiar around students and teachers in English subject is about vocabulary mastery. Students who does not know a meaning of useful word for their level in a text is not new issue in educational area, especially English subject. Such problem leads them to assumption of theirs that English is a difficult subject. Therefore, most of them are bored in learning it.

Vocabulary is really critical to learn. One of linguists, David Wilkins (in Thornbury, 2002:13), asserts that without grammar, very little can be said, meanwhile without words, nothing can be conveyed. He describes how important vocabulary learning is. Vygotsky (in Thornbury, 2002:1) stated “A word is a microcosm of human consciousness.” Both of those experts’ points of views are strong reasons to focus this study on vocabulary.

In vocabulary knowledge, at least, there are dimensions of vocabulary. They are vocabulary breadth (size) and depth (quality) (Qian 1998 in Choi, 2013). Choi (2013) states that vocabulary size refers to the number of words known by speakers (or listeners), while vocabulary depth is about how well they know the words. Qian (1998) also defines vocabulary size as “the number of words for which a student has at least some minimum knowledge of meaning”

and vocabulary depth as “one’s level of understanding various aspects of a word.”

The lack of vocabulary around students is not caused by the lack of sources that they can get. There are enough supporting sources that they can utilize to increase their vocabulary such as teachers, friends, text books, dictionary, social media (internet), television programs, and even a package of noodle (like *Mie Sedaap*, *Indomie*, etc.) that is completed with how to make it in English instruction. The critical point in this case is a way that a teacher uses in increasing vocabulary either the size or depth. However, this study will focus only on the size.

Due to the problems that are being faced by the students in building their vocabulary, the study paid attention to adapt a principle as a new game to increase the vocabulary size of students. The game was Tie-N-Throw Me (adapted from Putra, 2000: 239) that was played individually and competed one another.

Discussing about a game in helping students to learn English or another language, it should not be only ‘a game’. Thornbury (2002) states that a game is one of ways to put words into work. When words are put into work, they can be transferred to the LTM (Hereafter Long Term Memory). Thus, they can be recalled readily. However, he does not mention ‘a

game' in his statement, but 'useful game.' Though both the lexical items have the same 'head' namely, game, it does not mean that they represent the same semantically. There is a modifier 'useful' in the latter. It represents us that the game must be useful. In line with memory, the game should be able to make the lexical items stored in the LTM. Wright (2006: 1) also defines a game as "an activity which is entertaining and engaging..." a useful game should have contribution for transformation of lexical item stored in LTM. There are some activities (discussed in chapter 2) that can transfer lexical items from working memory to LTM. Qualitatively, the study found reason why Tie-N-Throw Me was effective. A reason of choosing the first year students of MAN 2 Praya was that they lacked of vocabulary size even in understanding and producing 'introduction' conversation. This fact led researcher to solve the problem.

Therefore, this study just measured how effective the game Tie-N-Throw Me on vocabulary size. This game is completed with activities that can transfer lexical item from STM (Hereafter Short Term Memory/working memory) to LTM. Then, the study discovered qualitatively reasons of this game effective.

## **METHODS**

Based on the title "The Effect of 'Tie-N-Throw Me' on Vocabulary Size", this study guided to a quantitative approach where it measured the effectiveness of this game on vocabulary size. This research also used qualitative approach to discover reasons based on activities attaching the game that could make lexical items transferred to LTM.

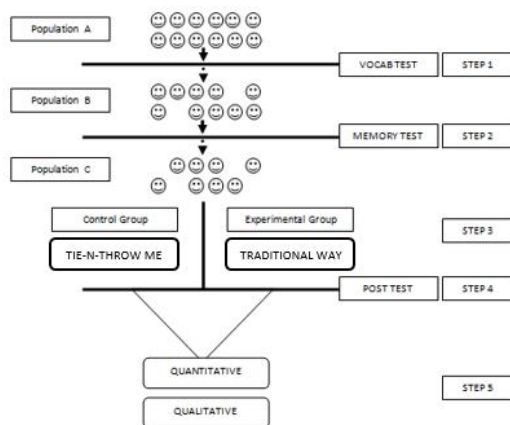
To measure the effectiveness, the study used an experimental method in this research. According to Miller (1984: 4), an experiment is a means of collecting evidence to show the effect of one variable upon another. There were two groups that become an experimental and control group. The former was treated by Tie-N-Throw Me, while the latter was treated by traditional way (drilling) where a teacher just listed vocabularies and their meanings on a board, then he asked students to memorize and asked them one by one the meaning of certain word after the meaning had been erased.

After getting the score of both groups, the study attempted to find reason of such game effective or not based on the activities contributing to LTM and the difficulties in playing such game.

The population of this research was the first year students of MAN 2 Praya in academic year 2016/2017 which consisted of six classes namely X Mia 1 with 23

students, X Mia 2 with 25 students, X Ibb with 32 students, X Iis 1 with 36 students, X Iis 2 with 34 students, and X Iis 3 with 33 students.

Then, the study took the homogenous sample randomly after doing test about vocabulary and memory (test designed by Hariono, 2000) to choose homogenous samples (presented in a flow chart below). The study took 56 students as the samples and divided them into two groups. It means that there were 28 students for experimental group and the other 28 for control group.



Flow Chat: Research Design

## DISCUSSION

### 1. Quantitative Data

Based on the title “The Effectiveness of ‘Tie-N-Throw Me’ on Vocabulary Size”, this study guided to a quantitative approach where it measured the effectiveness of this game on vocabulary size. The data were the scores of both groups.

Since the samples were divided into two groups, experimental and control, the study discovered the scores of both as follows:

#### a. The experimental group

No.	Scores	No.	Scores	No.	Scores
1	31,25	11	87,5	21	100
2	68,75	12	87,5	22	93,75
3	62,5	13	100	23	93,75
4	100	14	93,75	24	87,5
5	81,25	15	100	25	87,5
6	50	16	100	26	93,75
7	100	17	62,5	27	75
8	68,75	18	93,75	28	43,75
9	100	19	100		
10	100	20	35		
<b>TOTAL</b>					<b>2297,5</b>

#### b. The control group

No.	Scores	No.	Scores	No.	Scores
1	31,25	11	31,25	21	56,25
2	62,5	12	37,5	22	50
3	68,75	13	43,75	23	62,5
4	93,75	14	31,25	24	56,25
5	100	15	43,75	25	81,25
6	62,5	16	75	26	81,25
7	81,25	17	12,5	27	37,5
8	81,25	18	37,5	28	81,25
9	81,25	19	56,25		
10	75	20	50		
<b>TOTAL</b>					<b>1662,5</b>

The mean score of experimental group where Tie-N-Throw Me applied was 82.06 and the mean score of control group using drilling as a traditional method

applied by teachers in MAN 2 Praya was 59.38. It means that experimental group was more successful in using Tie-N-Throw Me on vocabulary size than the control group that using drilling on vocabulary size. Then, the study discovered the variances of both groups. The variance of experimental group was 433.24 and the variance of control group was 463.98.

Groups	Experimental	Control
Means	82.06	59.38
Variances	433.24	463.97

Getting the comparison score of experimental and control in which experimental was higher than control did not guarantee significance of the result. Therefore, the test was used to find the significance which was compared with the significance value of the t-table. The t value was 3.935. Then, this was compared with the significance value of 0.05 for degree of freedom 56-2. It was found 2.021. Since the t value is higher than the significance level of t table,  $H_0$  was rejected. It means that Tie-N-Throw Me was effective on vocabulary size.

Choi (2013) asserts that vocabulary size is the number of words known by speaker-hearers. It means that when one knows the meaning of the word or simply has the word in his mental lexicon, it refers to vocabulary size. This becomes very important among students who learn

English. Wilkins (in Thornbury, 2002) states that without grammar, very little can be conveyed. However, nothing can be conveyed without vocabulary. This statement is strongly right since no one can understand about a reading text or conversation and be capable to address something without vocabulary intake.

Facing a problem such as student boring in memorizing lexical items leads teachers to any games available for vocabulary. The analogy of this case is like a woman who goes to drug store for a medicine which can heal her stomach without selecting the best one for her. Same as this case, a game is like what Thornbury's definition (2002) that useful games are those that encourage students to recall word and what Wright (2006) also states about game that it is an activity that can entertain and engage the students. However, the game should not be just 'fun' for the players (in this case, students), but also 'useful' for them since the lexical items available in the game can be transferred into LTM. Once it is saved there, it might be for permanent file in LTM (Putra, 2008).

As the final solution, the researcher adapted principles in memorizing stranger words as a game (Putra, 2008) that is so-called Tie-N-Throw Me. The existence of such a game becomes 'enemy' of traditional

way being applied in MAN 2 Praya, that is drilling. Then, the post test was given.

In this research, the students of experimental group who used Tie-N-Throw Me were assisted to transfer the lexical items that had been memorized into the LTM. How was it effective as the game of vocabulary size?

## 2. Qualitative Data

After recovering the quantitative data, the study analyzed qualitative data based on two research goals: (1) To know the reasons of Tie-N-Throw Me effective or not in increasing vocabulary size and (2) To know the difficulties discovered by students in using this game.

To obtain both research goals above, the study interviewed the sample of experimental group as follows:

<i>Peneliti</i> (Researcher)	<i>Apakah Anda melakukan pembayangan terhadap asosiasinya ketika Anda menjawab soal?</i> Did you imagine the association while you were answering the test?
<i>Siswa</i> (Student)	<i>Iya. Saya melakukan pembayangan.</i> Yes. I did it.

<i>Peneliti</i> (Researcher)	<i>Apakah sulit dalam bermain game tersebut?</i> What was the difficulty of playing such game?
<i>Siswa</i> (Student)	<i>Sulit menemukan kata yang sama bunyinya.</i> It is hard to find the word that is similiar in sound.
	<i>Sulit membuat asosiasi.</i> It is difficult to make the association.

This second research question leads this research to discover the reasons of this game effective. Backing to the reason of this game applied just ‘fight’ against the traditional way used in MAN 2 Praya or other schools of ‘injecting’ vocabulary into students’ mental lexicon. The traditional way was drilling.

Drilling consists of repetition activity to move the lexical item from working memory into LTM. Iddon and Williams (in Arifuddin, 2010) states that repeating the information is not effective way of transferring the information into LTM. On the other hand, Tie-N-Throw Me consists of more effective activity that can transfer the information into LTM, namely building mental representation and

association which are considered as ‘whole practice’ which has deep process than just maintaining like repetition (Craik and Lockhar, 1972).

Mental representation is simply defined as mentally representation (Malmgren, 2006). If there is a mental representation of Lion Air, it means that someone mentally represents Lion Air, not Batik Air.



Picture 4.1. Mental Representation

Putra (2008) also asserts that mental representation is a coding that one needs to do not to forget the information. He also confirms that mental representation is internal reality, while The World is external one. In addition, Tie-N-Throw me consists of this activity when students must build the mental representation.

Another activity that is also more effective than repetition is association. Collins and Loftus (1975) states that information saved in memory in form of information network where the information relates to one another. The information which is not related to another information

can be forgotten. For example, the lexical item ‘green’ is not only about color reference. It might be about leaf, grass, or anything else.

Based on the two activities about transferring information into LTM, they can be the primary reason of Tie-N-Throw Me effective on vocabulary size. However, it is impossible to see directly someone’s mind while building the mental representation. The way the researcher used was to interview the students who became the sample of experimental group treated by Tie-N-Throw Me.

Since in the process of playing this game, the students were asked to imagine the word (concrete noun) and then associated it in a form of sentence before reimagining it, the researcher just asked the students whether or not s/he imagined again when s/he did the post test just right like in the game process.

In the interview, the researcher asked “*Apakah Anda melakukan pembayangan terhadap asosiasi yang Anda buat ketika menjawab soal untuk kata yang Anda lupa artinya?* (Did you imagine the association you had made when you answered the post test)” and all the samples of experimental group said “*Iya. Saya membayangkan kembali.* (Yes. I did it)” Referring to this interview, it was enough to discover about whether or not the mental

representation existed on their brains regardless of their honesty since the researcher could not control it.

Meanwhile, the association they made can be analysed from the document of worksheet of Tie-N-Throw Me. Putra (2008) asserts that the brain gives more attention to information that is considered unique from others. It means that the more unique or funny the information, the longer the memory saves it.

On the worksheet, one of students wrote the association in form of sentence about a lexical item 'flute' (with 'belut' as the equivalent sound of word) that means 'seruling' by saying "*Orang-orang pergi ke sawah mencari belut tanpa pancing tetapi menggunakan seruling agar belutnya keluar dan menari...*(people go to rice field to hunt eels not by using fishing rod but a flute to make the eels go out and dance...)" This sentence as the association is unique since it is beyond the normal fact. Since it is unique, the memory can give it more attention than the others.

However, not all of the students made unique sentences as the association. Another student just wrote "*Saat paman saya ingin mengajarkan saya bermain seruling, ibu saya memasak belut* (When my uncle wanted to teach me how to play a flute, mom was cooking an eel)" This sentence is not unique and beyond the fact.

Though this is not unique, the student writing this sentence could answer the post test for this item correctly. So, the mental representation played the role in this case since the student confirmed that she imagined it.

As the students involved in Tie-N-Throw Me that provides mental representation and association activities, this game is effective on vocabulary size after the interval between the treatment and post test was around 7 minutes. Referring to STM, it can save the information around 18 seconds (Peterson and Peterson, 1956). Then, were there any difficulties of this game?

Based on the interview, all of the students involved in Tie-N-Throw Me confirmed that they imagined (forming Mental Representation) the association while answering the post-test that they had made. Putra (2008) asserts that a person having a mental representation about something can remember it readily. Since in the process of Tie-N-Throw Me the students had to make a mental representation, it could cause such game was effective when the students were in a situation to recall the words again for the test.

Another data found in this study was about the difficulty of such game. A game is a product of human. If there is a proverb



“No body’s perfect”, the result of human’s creation can have the error as well. Thus, in this game, Tie-N-Throw Me- also has shortages in the application. The students that the researcher interviewed said:

*“Saya mendapatkan kesulitan saat mencari kata dalam Bahasa Indonesia yang memiliki pelafalan yang mirip dengan kata dalam Bahasa Inggris tersebut.”*

“I got the difficulty in searching words of Indonesian language which has a similiar pronunciation with words of English” (Dian Islami, student)

Another student also said another difficulty he found while playing this game:

*“Saya sulit untuk membuat asosiasi dalam bentuk kalimat.”*

“I got the difficulty to make association in form of a sentence”

(Lalu Hadi Prawiranto, student)

Based on the interview, there were two kinds of difficulty in Tie-N-Throw Me since this games required students to find a word in Indonesian language having similar sound and constituted a concrete noun with a word in English that is being memorized. After achieving the equivalent sound of word which was a concrete noun in Indonesian language, the students had to make an association with between the Indonesian word and the meaning in form of a sentence. Based on this rule, they found

difficulty (1) to find a word having similar sound which was a concrete noun and (2) they are also hard to make a sentence as the association. The reasons of the two difficulties occuring in students as Tie-N-Throw Me players are as follows:

(1) It is hard to discover a word in Indonesian language having similiar sound in English

The difficulty undergone by students to discover a word in Indonesian language that has similiar pronunciation with English lexical items leads this finding to a theory of how word knowledge is organised in mental lexicon. Thornburry (2002) states that words are stored in mind not like a dictionary, but a web. Words with similiar sound structure are interconnected one another.

Based on the document of worksheet, one of students of experimental group could not find a similiar sound of word ‘dipper’ in Indonesian language while another student could. Relating to the theory about mental lexicon above, the diagram can be like the following:

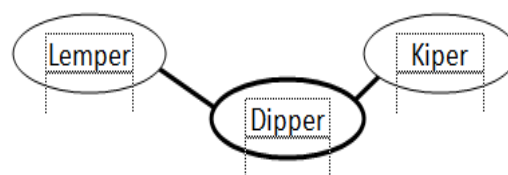


Diagram 4.1. How words are organised

Based on the diagram above, student A could not find a word in Indonesian language that is similar in sound with English and she left the column blank, but the student B could do that. It can mean that student A did not have *lemper* and *kiper* in her mental lexicon, but it is too impossible to say so since she is an Indonesian. Another reason that caused it was that student A forgot the word while she was playing Tie-N-Throw Me.

How someone codes a word can cause an omission of the word or the person forgets it (Putra, 2008). Coding is like a library. If the books are arranged well with certain codes, it is easier to discover it. However if it is not arranged well with codes, it is difficult to search. That is the analogy of why one forgets the information.

- (2) It is hard to make a sentence as the association

Solahudin (2009) states that a writer should think how the available ideas can be combined to form a logic result in form of text. He also says that to do so is not easy. A writer needs an effort to use the ideas. Based on his view, it can be the reason of students hard to make a sentence when they could not combine the ideas after

having the keywords, namely the meaning of English word and its similar-sound word in Indonesian language. This reason is supported by the worksheet of Tie-N-Throw Me where there were students who did not fill the sentence box.

There were two kinds of difficulty in Tie-N-Throw Me since this game required students to find a word in *Bahasa* having similar sound and constituted a concrete noun with a word in English that is being memorized. After achieving the equivalent sound of word which was a concrete noun in *Bahasa*, the students had to make an association with between the Indonesian word and the meaning in form of a sentence. Based on this rule, they found difficulty to find a word having similar sound which was a concrete noun and they are also hard to make a sentence as the association.

## CONCLUSION

This study was focus on a method adapted from principles of memorizing a word that was written in Putra's book (2008) where the researcher attempted to make it as a game by adding some features such as box for rewriting a word and scoring system. This game was named Tie-N-Throw Me.

Then, this was tested into a homogenous group of students as an experimental group and the other group was control one that was treated by drilling (a traditional method being used in MAN 2 Praya). The test showed that Tie-N-Throw Me was effective on vocabulary size.

The study also discovered the qualitative data relating to the reason of this game effective and the difficulty experienced by students in playing this game. The reason of this game effective was that the students made mental representation when they had to recall the words to make the information more optimal transferred into LTM.

The students also found the difficulty in playing such game. They were that they were hard to find a similar word in sound which was a concrete noun and that they were difficult to form a sentence as the association.

## **BIBLIOGRAPHY**

- Arifuddin. 2010. *Neuropsikolinguistik*. Jakarta: Rajagrafindo Persada.
- Collins and Loftus. 1975. *A Spreading Activation Theory of Semantic Memory*. *Psychological Review*, 82, 407-428.
- Craik, F.I.M. & Lockhart, R.S. 1972. *Levels of Processing: A Framework for Memory Research*. *Journal of Verbal Learning and Verbal Behavior*, 11, 671-684.
- Hariono, F., Nirwasita, U. & Nurhayati, S. 2000. *Panduan Resmi Psikotes*. Jakarta Selatan: Kawah Media.
- Malmgren, H. 2006. *Representations, Representations and Learning*. *Journal of Department of Philosophy, Goterborg University, Sweden*. No. 35.
- Miller, S. 1984. *Experimental Design and Statistics*. London: Routledge.
- Putra, Y.V. 2008. *Memori dan Pembelajaran Efektif*. Bandung: Yrama Widya.
- Qian, D.D. 1998. *Depth of Vocabulary Knowledge: Assessing Its Role In Adults' Reading Comprehension In English As A Second Language*. Unpublished PhD Thesis. University of Toronto.
- Solahudin, M. 2009. *Kiat-Kiat Cepat Belajar Writing*. Jogjakarta: Diva Press.
- Thornburry, S. 2002. *How to Teach Vocabulary*. Pearson Longman.
- Wright, A., Betteridge, D. & Buckby, M. 2006. *Games for Language Learning*. New York: Cambridge University Press.