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MEDIATING MULTILINGUALISM IN ENGLISH LANGUAGE CLASSROOM: PROSPECTS AND CHALLENGES

The Effect of Using the Smart Finger Technique on Student Grammar Mastery in Passive Voice Lessons

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Abstract

The study aimed to investigate the significant effect of using the smart finger technique on the students' grammar mastery in a passive voice lesson at the eleventh grade of MAN 2 Pandeglang. The study approach used was quantitative approach and quasi experimental method with achievement test in collecting data. Achievement test included pre-test and post-test. The population was 130 students and the samples of this research was 50 students that consisted of 25 student of experimental class and 25 student of control class. The experimental class used smart finger technique and control class used grammar discovery technique. The data was analyzed by using statistical of program SPSS 22. Based on the result of data analysis, the result showed that mean of post-test both experimental and control class different are 68.52 and 68.40 and for the result of t-test obtained sign score 0.000 $\leq \alpha = 0.05$. The result indicated the alternative hypothesis was accepted and the null hypothesis was rejected. As the result there was significant effect of using the smart finger technique on students' grammar mastery in passive voice lesson at the eleventh grade of MAN 2 Pandeglang.

Keywords: Smart finger technique; Grammar mastery; Passive voice

Introduction

Language is a means of communication that every human being has for communicating with others, such to share information, idea, opinion, or feeling that is used by people. Novari (in Novari, *et al*: 2021) stated that language is symbolic, a rule-driven system of conventional signs that are purposed for communication, self-expression, thinking, explaining the world and reality, and transmission of knowledge.

There are many languages, one of which is English as an international language that has been accepted as a second language in several nations. It has significant roles in wide areas such as in the workplace, increasingly advanced technology, and education. Mastering English can help people to find a good career, comprehend and follow technical advancements (because all technology nowadays uses English), and continue their studies at a higher level. That is why English is regarded and used as an international language.

There are four basic skills that should be mastered in learning English. The four basic language skills are listening, speaking, reading, and writing skills. These abilities, including vocabulary, spelling, pronunciation, and grammar are important and necessary to learn for students to master English. Mastering English is difficult for Indonesian people because it is not their first language owned, but it can be changed if they desire to learn it. Such as practicing speaking English and making sentences in good grammar.

Being a high-level student does not mean that learning English will be easy. In fact, most students still find the difficulties to learn English, especially in the mastery of writing. Students in this grade learn a lot of material related to writing texts, which in writing these texts many grammatical rules are not mastered. As the result, this situation makes students feel no interest and enthusiasm in learning English, and also teaching techniques used in learning English, especially grammar is less varied.

Dealing with those problems, the authors teaching experience in the eleventh grade of MAN 2 Pandeglang also found the similarity on it. for instance, the students were still confused to make correct sentences grammatically, especially lacking competence in using English tenses either in the active voice or the passive voice sentence. Their lack of understanding of grammar is due to the perception that English is difficult, and in addition, the teacher is likely to use lecturing techniques in teaching grammar. Thus, the students are not interested and enthusiastic about English subjects, especially grammar.

Teaching grammar needs a technique that can improve grammar mastery and encourage the interest of the student in learning English, especially in grammar. There are many techniques for teaching grammar, and one of them is using the Smart Fingers technique. In this technique, the student is allowed to use the fingers to memorize the tenses. As a result, it may make it easier for students to learn passive sentences. Thus, in this study, the authors focused on student grammar mastery in passive voice.

a. Grammar

Grammar is a description of a language's structure and how the language arranges linguistic units, words, and phrases to produce sentences. It frequently includes involves the sentence's content and function. Thornbury (2002:1) stated that grammar is a description of the rules that govern how a language's sentences are formed.

b. Types of Grammar

Grammar mastery is very important, both in speaking and writing. There are various varieties of grammar, but the two common types are the prescriptive and descriptive grammar.

1. Prescriptive grammar

(Freeman & DeCarrico, 2020) stated that prescriptive grammars are those that have rules that distinguish between correct and incorrect forms.

2. Descriptive grammar

Decapua, (2008:13) stated that in contrast to prescriptive grammar...Using descriptive grammar means stating that everything is correct and nothing is incorrect. What we need to think about is the speaker's intent while utilizing language.

In short, prescriptive grammar is grammar that has rules that must be used both orally and in writing, usually prescriptive grammar is used in formal situations, such as in studying in school, e.tc. while, a descriptive grammar which is interpreted as a style of a language spoken every day is the most accurate way of meaning in which all meanings are correct as long as everyone understands the true meaning. Usually, this type is used in daily conversation.

c. Tenses

Basic understanding to help students make good phrases or sentences is studying tenses. Woolard, (1999:1) stated that tense is the way grammar expresses time through different verb forms. At least, that is what we normally think.

Thus, tense is a part of grammar whose categories focus on differences in verb usage and time. English tense has 16 different types of English tenses, each with its own set of rules and functions. Different times are used, followed by different tenses patterns. There are two types of sentences in each tense: verbal and nominal sentences.

d. Passive voice

Passive voice is a grammatical sound in which the action of a verb is changed to the subject of a transitive verb. While active voice refers to the verb-subject is the person acting rather than the person who gets it. The focus of a passive voice sentence is on the action or activity itself, instead of on another person doing the action, and it is typically used in formal text.

Step of forming passive voice

Sudirman (2012:38) stated that there are five-step of forming the passive voice sentence, the following is five-step of forming the passive voice, as follows:

- 1. In active sentences, "object" becomes "subject" in passive sentences.
- 2. In active sentences, the "verb" specifies the type of "To be" that is used in passive sentences.
- 3. When to be (I, II, III) is used, simply look at the type of subject to determine which type of To Be is appropriate for a subject pair.
- 4. Each verb in the active sentence is changed to verb 3. (past participle)
- 5. In the passive sentence, look for the object pronoun to place after "by" in the active sentence.

e. Smart Finger technique

The Smart Finger technique is a learning technique that uses fingers, between the right and left fingers to have their respective functions. The right finger is called the "center", while the left finger is called the "branch". This technique is created to make it easier to memorize tenses and how to arrange sentences that are correct in grammar easily. Sudirman (2018:20) stated that

The smart fingers technique is a technique for teaching English tenses by the use of fingers. This is a new technique will assist teachers in teaching tenses so that students may quickly comprehend and learn English tenses...In this technique, The right and left hands are denoted by two different names. The right hand is known to as the "central" and the left hand as the "branch". Additionally, based on the many types of Smart Fingers, each finger has a unique name.

f. Types of the Smart Finger Technique

The Smart Finger technique has five types of Smart Finger techniques, they are Smart Fingers "memorizing tenses", Smart Fingers "naming tenses", Smart Fingers "auxiliary verbs", Smart Fingers "verbs vs to be", and Smart Fingers "smart short tenses". Each Smart Fingers technique has its own set of functions. Thus, from five types of the smart finger technique, the authors used three types were Smart Finger "Memorizing Technique" to help students memorize the tenses, Smart Fingers "auxiliary verb" and Smart Fingers "verb vs to be" both types were related to passive voice that was conducted in this study.

a) Smart Finger "Memorizing Tense"

In this type, the center (C) and the branch (B) sections are combined.

The example: Present Tense

There are four present tenses that are created by combining the center (C) and the branch (B):

1. Simple Present Tense

It is created by combining the index finger (C) with the index finger (B).

2. Present Continuous Tense

It is created by combining the index finger (C) with the middle finger (B).

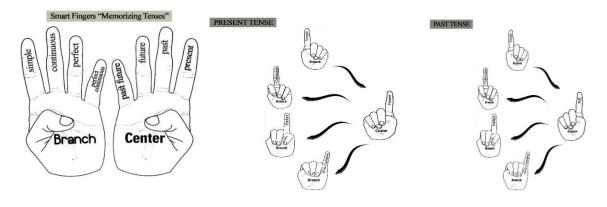
3. Present Perfect Tense

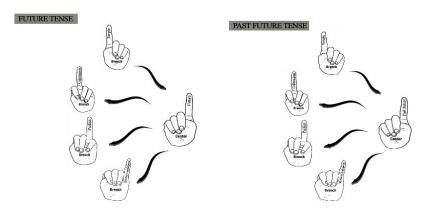
It is created by combining the index finger (C) with the ring finger (B).

4. Present Perfect Continuous Tense

It is created by combining the index finger (C) with the little finger (B).

Illustration.1 The Step of Smart Finger "Memorizing Tense"





b) Smart Fingers, "Auxiliary Verbs"

This type is very simple, that all you have to do is link the fingers on each hand that have the same name.

For example:

1) Present tense

Pairing the thumb finger (C) with the thumb finger (B)

2) Past tense

Pairing the index finger (C) with the index finger (B).

3) Perfect tense

Pairings the middle finger (C) with the middle finger (B).

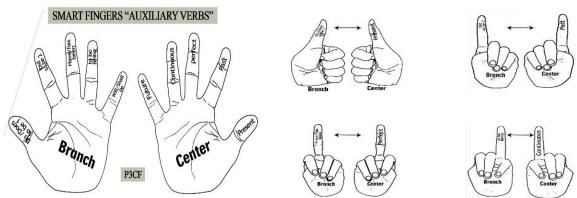
4) Continuous tense

Pairing the ring finger (C) with the ring finger (B).

5) Future tense

Pairings of the little finger (C) and little finger (B).

Illustration 2. The Step of Smart Fingers, "Auxiliary Verbs"



c) Smart Fingers, "Verb VS To Be"

This Smart Finger, "verb vs to be" helps switch from verbal to nominal tense forms. Students will be able to convert 16 tenses formulas into 32 tenses formulas after understanding this type. For verbal sentences, there are 16 tenses formulas, and for nominal sentences, there are 16 tenses formulas. Consequently, there are 32 formulas in all for English tenses.

This type is used in the same way as the previous one, which is to combine the fingers in each hand that has the same name.

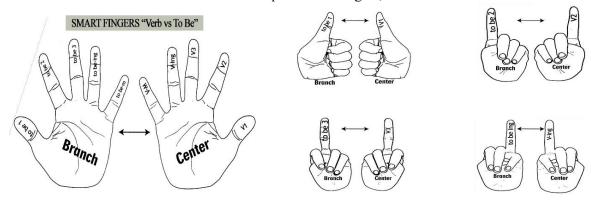
The example:

Pairings the middle finger (C) with the middle finger (B).

It means if there is a verb-3, the students can convert it to been.

Therefore, the tense's name doesn't change but the formula changes. This type is used in the same way as the preceding one, which is to combine the fingers in each hand that has the same names.

Illustration 3. The Step of Smart Fingers, "Verb vs To Be"



Research Methodology

This study used a quantitative approach, which used numeric data collection to investigate the effect of the techniques that used in this study. Specifically, the authors used a quasi-experimental design that had two variables in this approach were the experimental class and the control class. Ary *et al* (2014:339) stated that quasi-experimental is the modification of an independent variable, its designs are similar to randomized experimental designs, but the subjects are not randomly assigned to treatment groups.

Both experimental class and control class were given pre-test and post-test. A pre-test was given to know the students' ability and score before giving the treatment. While a post-test was given to measure the ability and the score after giving the treatment. The pre-test and post-tests assisted in identifying whether or not a difference exists. In this study, the authors taught the same material that was a passive voice but with a different technique. The Smart Finger technique was applied in the experimental class and the grammar discovery technique was applied in the control class.

This study was conducted at the eleventh grade of MAN 2 Pandeglang, that had the population 130 students, and the sample that used for this study was 50 student that consisted of 25 students for experimental class and 25 students for control class.

a. Instrument Test

Before test given to both student experimental and control classes, the instrument test was tested the validity and reliability. The validity test was to measure the feasibility of the instrument, while the reliability test was to determine the data's validity if it was examined repeatedly. Phakiti (2014:84) stated that validity is concerned with the precision, legitimacy, and correctness of tests and observations made during in the collection of data, as well as the validity of conclusions produced using the data. Ary *et al*, (2014:229) stated that reliability of a measure refers to its capacity to deliver consistent results each time it is used.

b. Data collecting technique

This study used an achievement test. According to Ary *et al*, (2014:672) an achievement test is a measurement of how well a person has learned certain facts or skills, usually as a result of specific education. Too, Phakiti (2014:119) "Achievement tests...that are conducted in a language classroom can use achievement tests as pre-tests and post-tests."

The test that used in this study was using error recognition test and the steps that the authors took in order to collect data were pre-test, treatment, and post-test. The pre-test which aimed to measure the comprehension of students' understanding of passive voice lesson before getting the treatment. This study was carried out by the authors in accordance with the lesson plan, in the treatment the authors used the Smart Finger technique in experimental class and Grammar discovery technique in control class. After both classes had received all necessary treatments, the authors completed the process by giving a post-test, in order to assess students' comprehension of the passive voice lesson after getting the treatment, the students were given the identical questions to complete in the most recent meeting.

c. Data analysis technique

The data's results analyzed by some tests, the first normality test to investigate the data that obtains from the experimental class and the control class either normal or not., homogeneity test, and hypothesis test. According to (Ilmi & Hudaib, 2018):

The normality test is used to examine data and identify whether it is normal or not. It was also used to ensure that the data was dispersed correctly. This is because the parametric technique requires that the data be normal.

The second homogeneity test to investigate the data that obtains from the experimental class and the control class has the relative same variants or not. Ary *et al*, (2014:677) stated that homogeneity is a measure of a test's inter-item consistency. And the last was hypothesis test, the authors conducted the hypothesis test to decide whether the hypothesis was accepted or rejected, and the authors used T-test to do the hypotheses test. Ary *et al*, (2014:96) stated that

The most important characteristic of a "good" hypothesis is testability... A testable hypothesis enables the researcher to establish through observation and data collecting if deductively implied consequences actually take place.

Result and Discussion

- a. Result of the study
 - 1) Description of the data

This study was conducted at eleventh grade of MAN 2 Pandeglang. Throughout a roughly one-month period beginning on May 12 and ended on June 21, 2022. In order to carry out the pretest and post-test for this study, the authors started by giving class XI IPA 2 students a practice test consisting of 50 questions. From this test, the students were able to generate 30 valid questions, which were then collected and handed to the experimental and control students.

After the results of the validation test are obtained, the pre-test and post-test can be carried out to both experimental class and control class. The result of pre-test, that the mean of experimental class was lower than control class that was 60.56 and 60.8, and following the pre-test, the students begin to provide their respective treatments, which carried out for five meetings. Therefore, the last step that given was posttest to both classes and got the increased result that the mean of post-test experimental class was highest than control class that was 68.52 and 68.4.

Based on the result of pre-test and post-test that are collected above, the authors need to know the descriptive data statistics score containing the minimum, maximum score, mean and standard deviation. To find out them all, the authors used the computer-assisted program SPSS 22 version, and the result can be described below:

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Test Experiment	25	33	80	60,56	11,508
Post-Test Experiment	25	47	83	68,52	9,536
Pre-Test Control	25	43	80	60,80	9,857
Post-Test Control	25	47	83	68,40	8,515
Valid N (listwise)	25				

Table 1. The Data of Descriptive Statistics

Based on the result of the descriptive data statistic above, from 25 students (N) of pre-test experimental class, the minimum score that is 33, while maximum score is 80, the average or mean of this score is 60.56 and the standard deviation is 11.508. For the post-test of experimental class, the minimum score that is 47, while the maximum score is 83, so mean of post-test is 68.52 and the standard deviation is 9.536. Meanwhile, for control class from 25 students (N) the score of pre-tests gets the minimum score that is 43, and the maximum score that is 83, so mean of this test is 60.80 and the standard deviation is 9,857 and for the post-test of control class the minimum score is 47, maximum score is 83, so mean of this test is 68.40 and standard deviation is 8.515.

- 2) Analysis the data
- a. Normality test

In this study, the authors determine the pre- and post-test scores for the experimental and control classes by using SPSS 22 program. It is utilized to investigate normality of the data that will be examined to see whether both classes have a normal distribution. The following step the authors use the following formula to analyze the normality of the data:

If Significance > 0.05 = data is normal distribution

If Significance < 0.05 = data is not normal distribution

The result of the tests normality of pre-test and post-test by using the computer-assisted program SPSS 22 version could be seen as follows:

Table 2. Tests of Normality (SPSS)

Class		Kolmog	orov-Sn	nirnov ^a	Shapiro-Wilk			
		Statistic	Df	Sig.	Statistic	Df	Sig.	
Student	Pre-Test	,152	25	,139	,967	25	,579	
Results	Experiment	,132	23	,139	,907	23	,319	
	Post-Test	,137	25	,200*	,910	25	,030	
	Experiment							
	Pre-Test	,132	25	,200*	,957	25	256	
	Control	,132	23	,200	,937	23	,356	
	Post-Test	,152	25	140	055	25	220	
	Control	,132	23	,140	,955	23	,330	

^{*.} This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Based on the data above, it can be seen that the significance of data experimental and control class use Shapiro Wilk is higher than 5% (>0.05), where for pre-test experimental class is 0.579 > 0.05 and post-test is 0.30 > 0.05, while pre-test control class is 0.356 > 0.05 and post-test is 0.330 > 0.05. As the result, that the score of data each class is in normal distribution.

b. Homogeneity test

To investigate the data that obtains from the pre-test and post-test experimental class and the control class have the relative same variants or not, the authors analyze the data by using SPSS 22 version.

The criteria of homogeneous are as follows:

If Significance > 0.05: homogeneous

If Significance < 0.05: not homogeneous

Table 3. Tests Homogeneity of Post-Test Experimental Class and Control Class

Levene Statistic	df1	df2	Sig.
,104	1	48	,748

In addition, the data of post-test is called homogeneous if the significance is higher than level significance 5% ($> \alpha$ =0.05). Based on the test homogeneity above it is proven that the score of significance is higher than level significance, where 0.748 > 0.05. As a result, it is determined that the data are homogeneous, which means that post-test both the experimental class and the control class have the identical variants as well.

c. Hypotheses Test

Hypotheses test is needed to decide whether the hypothesis is accepted or rejected. The authors use paired samples T-test by SPSS 22 version to do analyze the hypotheses test. The results of the paired sample t-test are needed to determine whether or not there is a significant effect of hypothesis, and the statistical hypothesis are:

- H₀: There is no significant effect of using the Smart Finger technique on students' grammar mastery in passive voice lessons at the eleventh grade of MAN 2 Pandeglang.
- H_a: There is a significant effect of using the Smart Finger technique on students' grammar mastery in passive voice lessons at the eleventh grade of MAN 2 Pandeglang.

Sansoto (in Raharjo, S. 2021) stated that the criteria of paired samples T-test are:

If significance (2 tailed) < 0.05, it means H_0 is rejected and H_a is accepted.

If significance (2 tailed) > 0.05, it means H_0 is accepted and H_a is rejected

The following are the result of paired sample T-test as follows:

Table 4. Paired Samples Test

		Paired Differences							
					95% Confidence				
			Std.	Std.	Interval of the				Sig.
			Deviati	Error	Difference				(2-
		Mean	on	Mean	Lower	Upper	T	df	tailed)
Pair 1	Pre-Test Experiment - Post-Test Experiment	-7,960	5,458	1,092	-10,213	-5,707	-7,292	24	,000
Pair 2	Pre-Test Control - Post-Test Control	-7,600	6,212	1,242	-10,164	-5,036	-6,118	24	,000

According to the table's paired samples t-test, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted due to the fact that level significance is lower than the results of the significance (2 tailed) test 5% $(0.000 < \alpha = 0.05)$ for both the experimental class and the control class.

Therefore, the result can be inferred that there is a difference in the average or mean of the pre-test and post-test results, which means that there is a significant effect of each technique that is used in the both experimental class and control class.

Furthermore, based on the results of mean obtained from the two different techniques used by each class, a more significant difference in the mean pre-test and post-test results is obtained by the experimental class using the Smart Finger technique.

To sum up that using the Smart Finger technique can provide a more significant effect on students' grammar mastery in passive voice lessons at the eleventh grade of MAN 2 Pandeglang.

Conclusion

Based on the result and discussion, the conclusion can be concluded that teaching English in the eleventh grade of MAN 2 Pandeglang using the Smart Finger technique is effective, especially on students' grammar mastery in passive voice lesson. It can be seen in the data of descriptive statistic, comparing the result of post-test both experimental class and control class, after getting the treatment the result of experimental class is 68.52 and control class is 68.40, it means the result of experimental class is higher than control class.

In addition, based on the paired samples t-test with the level significance 5% (α =0.05), it found that the null hypothesis (H₀) is rejected and the alternative hypothesis (H_a) is accepted because the significance (2 tailed) results for the experimental class is lower than level significance 5% (0.000 < α =0.05).

In short, based on the result that the Smart Finger technique is an effective teaching technique for teaching and learning grammar in passive voice lesson at the eleventh grade of MAN 2 Pandeglang. By using this technique, the students are more active and motivated to study grammar especially in passive voice and tenses. As a result, it is possible to greatly enhance students' comprehension of passive voice and tenses

Suggestions

After conducting the study at the eleventh grade of MAN 2 Pandeglang, the authors found the positive effect in learning English especially on grammar mastery in passive lesson. There is some the important thing that can be suggested especially for the teacher that the teacher must have alternative technique in teaching grammar for enhancing student's mastery in grammar, for the students that they have to modify their perspective of learning grammar is not always difficult, and for the other authors this study can be used as another reference for those who will conduct similar research with different variables.

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