

THE EFFECT OF TENSES PERIODIC TABLE ON ELEVENTH GRADERS' SIMPLE PRESENT AND FUTURE TENSES AT SMK NEGERI 4 TARAKAN

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ABSTRACT

The study examined whether there was a significant difference between pupils taught using the tenses periodic table and those who were not. The pre-experimental design of the study included one group pre-testing and post-testing. Eleventh-grade Multimedia 2 students comprised the study's sample population. The paired sample t-test was utilized to investigate the data during analysis. The values for normality and homogeneity were 0.216 (>0.05) for normality and 0.383 (>0.05) for homogeneity. The study showed a 99% improvement between the pre-test and post-test results, with the pre-test mean score being 32.97 and the post-test mean score being 65.78. The results indicated that H_a is accepted and H_o is rejected. It indicates that the tenses periodic table is suitable for assisting eleventh-grade students of SMKN 4 Tarakan to enhance their ability to use straightforward present and future tenses.

Keywords: *Tenses Periodic Table, Tenses Ability*

INTRODUCTION

Nowadays, English is an essential element that influences international communication activities. Mastering English as an international language is crucial to accelerate national development, obtain and absorbing, and develop science and technology without neglecting cultural aspects. Indonesia is one of a country that uses English as a foreign language. However, English has become one of the compulsory subjects taught in grade schools in Indonesia. Non-native learners should master the English skills of reading, writing, listening, and speaking. Mastering the English language skills with grammar skills can make the students understand Field (Sadiku, 2015) easily. Non-native learners need to study grammar, the importance of grammar must be addressed, and they need to understand grammar.

Knowledge of English grammatical structures is helpful when learning the grammatical structures of another language or teaching them to others (Börjars & Burrige, 2019). Grammar is the study of words and how words work together, an invisible force that guides us as we put words into sentences. A detailed study of English grammar can reveal things about universal grammar. Grammar is vital to language mastery, particularly for Indonesian learners (Listia & Febriyanti, 2020). Since grammar is related to the construction of correct sentences, the learners must be able to express the sentences in the right form of tenses. Which correct tense should the learners use to show their language proficiency in the sentence?

One of the parts, tenses, was considered challenging to acquire. It is widely known that tenses are an essential part that needs to be mastered by non-native learners. Tenses are

essential elements of grammar, such as present tense, past tense, future tense, etc. They indicate the relation of time influencing the forms of verbs in English sentences. Besides the theory, learners must also be able to implement grammar into a correct sentence according to the rules. Other people do not understand a person's speaking and writing in English without using tenses correctly. The learners need to learn tenses since they have a great influence on forming the meaning of sentences. Tense is a verb-based method used to indicate the time, continuation, or completeness of an action or state concerning the time of speaking (Andarisa, 2018). When they learn the concept of tenses correctly, the learners can understand the meaning of using a sentence at a predetermined time.

Students need help mastering grammar, especially tense material (Rahman & Ali, 2015). These difficulties are that students still do not understand the patterns and uses of the tenses, students often make mistakes in preparing correct sentence patterns, and students are not interested in the learning process applied by the teacher in learning tenses material (Taslim, 2016) (Fakhrunnisa, 2019) (Wahyuningtyas & Bram, 2018). This condition can cause boredom among students and a disability of understanding. Most students need clarification about defining the tenses into a sentence that should be recognized, besides the complicated formulas that are almost the same that students should memorize and apply to their sentences. Technical terms include tenses, perfect, progressive, present, and hard to memorize. Based on an interview conducted on (13 January 2022) the teacher reported that the problem faced by the student was that when the class was about tenses, they needed clarification about composing sentences properly and correctly. The lack of tenses competence drives the students to fail category. Moreover, learning is a teacher-dominated process that makes students passive and dependent. This condition needs to follow up immediately to decrease the number of students learning English and motivate the learners to be active.

Based on the phenomena above, the researcher believes it necessary to improve teaching quality and learn tenses skills by applying an appropriate strategy. One alternative strategy that can be applied is the tenses periodic table. Tenses periodic table was appropriate to the characteristic of students who are studying with playing, which succeeds not only in motivating but also in increasing student achievement (Hadi & Darmawan, 2021) (Sari & Wahyuni, 2015) (Pilak et al., 2020). It means the feasibility very well in formats, visuals, and functions. On the other hand, the tenses periodic table has been used in science and politics. Therefore, the researcher was trying to form the tenses periodic table used in English class, specifically tenses. This research was intended to stimulate the students' understanding of works tenses to determine the effect of the tenses periodic table on students' tenses achievement.

METHOD

The research was quantitative. Quantitative research tests objective theories by examining the relationship among variables (Creswell, 2009). specific methods exist in both survey and experimental research that relate to identifying a sample and population, specifying the type of design, collecting and analyzing data, presenting the results, making an interpretation, and writing the research consistent with a survey or experimental research. This research used experimental research. Pre-experimental designs are research schemes in which a subject or a group is observed after a treatment has been applied in order to test whether the treatment has the potential to cause change (Frey, 2018).

This type of research design was called a one-group pre-test and post-test design. One-group pre-test and post-test design measure scores before and after treatment, then compare the difference between pre-test and post-test scores (Privitera & Delzell, 2018). This design involved one group that was pre-test (01), exposed to treatment (X), and post-test (02). The

experimental design describes the researcher's procedures to test their research hypothesis to reach valid conclusions. The researchers gave the treatment by using the tenses periodic table to teach tenses skills in the experimental group. The research design is formulated as follows:

Table 1. One Group Pretest-Posttest Design

The Experimental Class		
O ₁	X	O ₂

Source: Creswell, 2017

This research was conducted on eleventh-grade students of SMK Negeri 4 Tarakan. Tenses skill is one of the skills in English lessons that must be taught to all students. Therefore, the main objective of English subjects helped students have better English Competence.

This design involved one group that was pre-test (O₁), exposed to treatment (X), and post-test (O₂). The experimental design describes the researcher's procedures to test the research hypothesis to reach valid conclusions. It aims to know whether there was a significant effect before and after using the periodic table in teaching tenses, specifically simple present and future tense. The student's tenses mastery was measured by pre-test before applying the tenses periodic table and post-test after using the tenses periodic table. The material was carried out by the expert following the rubric scoring. An expert assessed the written test, an English teacher at the SMK Negeri 4 Tarakan. The researchers used statistical analyses and paired sample t-tests to analyze the data.

1. Normality Test

The normality test is carried out as a prerequisite for conducting data analysis. The normality test was carried out to determine whether the data was good and feasible to prove whether the data was normally distributed. The normality test was seen from the pre-test and post-test results. The normality test of the pre-test and post-test data results was used Shapiro-Wilk using the Statistical Package for Social Sciences (SPSS) software for Windows.

2. Homogeneity Test

A homogeneity test was conducted to determine whether students in the class had homogeneous variance. Test the homogeneity of two variances on the pre-test and post-test data results using the Levene test with the Statistical Package for Social Sciences (SPSS) for Windows software.

3. Paired Sample T-Test

The basic experimental study is one independent variable (cause) manipulated to see its effect on one dependent variable (effect). According to (Bui, 2019), the paired-sample T-test was used to determine whether the difference in mean scores on the dependent variable between two sets of related scores was a real difference or one due to chance. To determine whether the H₀ was rejected or accepted, if the probability was equal to or less than $\alpha = .05$ ($p \leq .05$), it can reject the H₀ and conclude that there was a significant difference between the pre-test and post-test mean scores, and it was not due to chance. If the probability was greater than $.05$ ($p > .05$), retain the H₀ and conclude that there was no significant difference.

FINDINGS

Pre-test

The expert used the scoring rubric to evaluate students' scores. Every part of the scoring rubric had a different point with the same criteria. The criteria were very good, good, fair, poor, and poor. Based on the students' tenses skill scores in the pre-test, the researchers found the students' results in each aspect of the experiment. The number of the students' pre-test scores of each element from both classes was counted by using SPSS version 26.0, which was explained in the table below:

Table 2. The Students' Pre-Test Score

Classification	Range Score	Frequency	Percentage
Very good	86-100	0	0 %
Good	80-85	0	0 %
Fair	75-79	0	0 %
Poor	65-74	0	0 %
Very poor	65	32	100 %
Total		32	100 %

Table 4.2 shows the percentages of the student's scores from the pre-test. In the experimental class, the percentages showed that no students got in the classification score for very good, good, fair, and poor. Meanwhile, % of the students (100%) were poor.

Post-test

Based on the student's tenses skill scores in the post-test, the researchers found the students' results in each aspect of the experiment. The number of the students' post-test scores of each aspect from both classes was counted by using SPSS version 26.0, which is explained in the table below:

Table 3. The Students' Post-Test Score

Classification	Range Score	Frequency	Percentage
Very good	86-100	2	6,3 %
Good	80-85	1	3,1 %
Fair	75-79	4	12,5 %
Poor	65-74	14	43,8 %
Very poor	65	11	34,4 %
Total		32	100 %

Based on Table 4.3, the student's tenses skill scores in the experimental class showed that six students got a fair score with a percentage of 37,5 %%, and two students got poor scores with a percentage of 12,5 %. In addition, 50 % with very poor, which eight students achieved. Furthermore, students could have gotten better and better scores. Meanwhile, the

students speaking skill scores in the control class showed one student who got a poor score of 6,66% and one who got a fair score of 6,66%. Furthermore, 86,6% could have been a better score achieved by 13 students. Then, no students who got very good and good category. Overall the highest percentage for the experimental class was classified in the very poor category, 50 % (8 students), and the control class was classified in the very poor category at 86,6 % (13 students).

The significant difference in the pre-test and post-test of the experimental class was illustrated in the table as follows:

Table 4. Paired Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test	32.97	32	16.057	2.839
	Post-Test	65.78	32	11.152	1.971

Based on Table 4.9, The table presented an increase in mean score between the pre-test and post-test. The pre-test was 32,97 increased by 96% in the post-test. This increased result happened to cause the treatment that has been conducted on students.

Table 5. Paired Sample

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PreTest - PostTest	-32.81	19.59	3.463	-39.875	-25.750	-9.475	31	.000

From Table 4.10, the significance value of the paired sample t-test was 0.000 (< 0.05). All the aspects of the variable also significantly improved. From those findings, it can be stated that the null hypothesis (H0) was rejected and the alternative hypothesis (Ha) was accepted, which means there was a significant difference in students' tenses achievement before and after they were taught using the Tenses periodic table.

DISCUSSION

Media is a means of channeling messages or learning information to be conveyed by the message source to the target or recipient of the message (Nurpratiwiningsih & Setiyoko, 2018). Teachers in teaching and learning activities can use learning media. The characteristics of the instructional media are practical usage. Learning activities guided students to think critically and creatively, and exercises and real problems allowed students to think about alternative solutions to solve problems and provide variations in learning (Dwijayani, 2019). Being a source of motivation and primary expertise, the task of teachers covers building students' engagement, or the educational objectives cannot be accomplished (Eppendi & Vega, 2020). The tense and rigid classroom pattern presented subjectivity in the teacher students relationships, resulting in a declined enthusiasm and triggering bore students'; even the best outcome was hard to maintain. Teachers should perform educational practices creatively to obtain participants' desires, creating a better learning experience (Alsoud & Harasis, 2021).

The student needed to gain an understanding grammatical. It could be seen from their ability to make grammatical mistakes. Rules in grammar and explanation tasks were the most

difficult for them. The major factor of their weakness was the complexity of the tenses rules. The principle of writing in English or Indonesian was similar. However, the rules of grammar structures used in the English language are different from the rules of grammar structures in Indonesian. Examples of these differences were no specific grammatical forms to express time (Asni & Susanti, 2018). Tenses were one of the biggest problems found by the students. The difficulties encountered by the students in learning tenses come from the students' perceptions. Most students think that the tenses are difficult with their form; they find it difficult to distinguish the changes in verb₁ to verb₂ or verb₃, also when using regular and irregular verbs. External factors influence most students' difficulties in learning English, especially in tenses lessons. It was supported by (Handayani et al., 2022) state that many senior high school students have some difficulties in learning English, especially in learning tenses. They are confused because they should master many forms of tenses. The tenses periodic table was one of the new media created to improve the ability of students' tenses. The use of tenses periodic table in teaching and learning activities can generate new interests and desires, generate motivation and stimulate learning activities, and even psychologically influence the learner.

Based on the finding, the tenses periodic table was applied to increase the student's tenses achievement. From the research results, the researcher found that using tenses periodic table given to students could improve their tenses. This was evidenced by the students reporting that they learned tenses using the tenses periodic table to make it easier for students to understand the material. This was because usually, tenses lessons have long explanations, with the tense periodic table making it simple, only one page able to explain two materials. Besides that, they feel bored if teaching and learning activities do not use learning media. Therefore, the tenses periodic table made them more enthusiastic about learning tenses because it was very practical to use, and the display was very interesting. Learning media can help teachers and students to achieve effective and efficient learning goals (Mujiono & Sarah, 2021). Interesting learning media and direct involvement students can make learning fun, training cooperation, improve students' understanding of interest in learning, accelerate information, and solve problems (Hoerunnisa et al., 2019). Students were better motivated to learn and accomplish more creatively using tenses periodic table.

Nevertheless, many students still needed to gain tenses knowledge. Several factors influence these problems. Vocabulary is important for English learners, especially in tenses lessons (Aditya & Chairuddin, 2021). Unfortunately, this was not supported by the student's ability to understand vocabulary, and they still need more vocabulary. They can only mention the same vocabulary when asked to make a sentence. They cannot develop a sentence due to a lack of memorizing vocabulary. Besides that, they lack example sentences in the periodic table tenses, so they cannot be creative in making a sentence.

CONCLUSION

Several conclusions can be drawn based on the findings in the previous chapter. The implementation of the tenses periodic table was effective in increasing students' tenses. The students' results increased after being treated with the Tenses periodic table. Tenses periodic table can be used in the learning process. A significant increase in student achievement was related to tenses achievement after receiving treatment using the Tenses periodic table. This was shown in the calculation using the t-test. From the analysis above, the researcher concluded that there was a significant effect after teaching tenses the periodic table. In other words, using the Tenses periodic table in teaching tenses can improve students' tenses. Using this media to improve tenses achievement has a positive impact on students. Some factors influence success in increasing tenses achievement, but it depends on how the researcher or teacher handles it so that students do not get bored with language learning. The media used in

class was a very effective and supportive activity in improving students' tenses achievement and proficiency. Unfortunately, due to limited time and curriculum, this media was difficult to apply in the classroom. However, the tenses periodic table was very useful and can be used to develop student tenses achievement. Therefore, it was suggested that teachers try some material, including the tenses periodic table, which might be useful for their students to improve students skills and help them achieve their goals, and at least try new things in teaching. The tenses periodic table can be an effective way to learn or develop students' tenses achievement.

Last, the result of this research showed that there was a significant effect after teaching the Tenses periodic table. It can be seen from the computation of the independent t-test. It can be seen from the hypothesis test indicated that there was a lower level of significance of 0,05. It meant that H_a was accepted while H_o was rejected. The tenses periodic table effectively increased teaching tenses for students in SMK Negeri 4 Tarakan.

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