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English Learning Styles of the Eleventh Grade Students in SMA Negeri 07 Kendari

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Abstract

This study aimed to find out the English learning styles of the eleventh-grade students in SMA Negeri 07 Kendari and the contribution of students learning styles to English achievement. Those learning styles were visual, auditory, read/write, and kinesthetics. This study applied a quantitative approach under the survey research design. The sample for this study was 84 students of grade 11 in SMA Negeri 07 Kendari, who were divided into 4 classes. A closed-ended questionnaire was used to collect the data. This study used descriptive statistics and simple linear regression to analyze the data. The results of this study showed that the majority of grade 11 students in SMA Negeri 07 Kendari used auditory learning as their major English learning style preference. Meanwhile, visual learning was their minor English learning style preference. Followed by read-write and kinesthetics learning styles. There was a significant relationship between the students' learning styles and their English achievement, with the significance value (Sig.) being 0.000 smaller than the probability of 0.05, and the contribution of the students' learning styles to the English achievement of the eleventh-grade students in SMA Negeri 07 Kendari was 30%. The R square value is 0.300. It means that learning style is not the main factor contributing to the students' academic achievement.

Keywords: *English learning styles, VARK, learning styles contribution.*

Gaya Belajar Bahasa Inggris Siswa Kelas XI SMA Negeri 07 Kendari

Abstrak

Penelitian ini bertujuan untuk mengetahui gaya belajar bahasa Inggris siswa kelas sebelas di SMA Negeri 07 Kendari dan kontribusi gaya belajar siswa terhadap prestasi bahasa Inggris. Gaya belajar tersebut adalah visual, auditori, baca/tulis, dan kinestetik. Penelitian ini menerapkan pendekatan kuantitatif dengan desain penelitian survei. Sampel penelitian ini adalah 84 siswa kelas 11 SMA Negeri 07 Kendari yang terbagi dalam 4 kelas. Kuesioner tertutup digunakan untuk mengumpulkan data. Penelitian ini menggunakan statistik deskriptif dan regresi linier sederhana dalam menganalisis data. Hasil penelitian ini menunjukkan bahwa mayoritas siswa kelas 11 SMA Negeri 07 Kendari menggunakan pembelajaran auditory sebagai preferensi gaya belajar bahasa Inggris utama mereka. Sementara itu, pembelajaran visual merupakan preferensi gaya belajar bahasa Inggris minor mereka. Dilanjutkan dengan gaya belajar baca/tulis dan kinestetik. Terdapat hubungan yang signifikan antara gaya belajar siswa dan prestasi bahasa Inggris mereka, dengan nilai signifikansi (Sig.) sebesar 0,000 lebih kecil dari probabilitas 0,05, dan kontribusi gaya belajar siswa terhadap prestasi bahasa Inggris siswa kelas sebelas di SMA Negeri 07 Kendari sebesar 30%. Nilai R Square sebesar 0,300. Artinya, gaya belajar bukanlah faktor utama yang berkontribusi terhadap prestasi akademik siswa.

Kata kunci: gaya belajar bahasa inggris, VARK, kontribusi gaya belajar.

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Introduction

In the process of learning a language, each individual thinks, processes, and observes various information in different ways. There are many factors that can affect a students' learning success, including motivation, attitude, aptitude, learning styles, time management, study habits, quality of instruction, and support. One of the most important of these factors is the students' learning style, learning style refers to the way in which a student best learns and retains information. Learning style is a combination of how people absorb information, organize and process the information. Learning style showed how an individual in information processing with the aim to learn and apply (Marzoan *et al*., 2016). Similarity (Wesonga and Aurah, 2019) stated that learning styles refer to the different ways in which individuals prefer to learn and process information, increasing learners' awareness of learning styles can be beneficial to reach and teach students with different learning needs and preferences. As for (Fardon, 2013) and (Moussa, 2014) state learning styles as techniques or individual ways to manage and develop its understanding of the information being studied in the learning situation. Thus, it can be said that learning style is an individual's comfortable way of managing internal information situation and learning environment to develop their understanding of learned information.

The VARK model stands for Visual, Auditory, Read/Write, and Kinesthetics. It was developed by Neil D. Fleming in the late 1980s as a tool to help individuals understand their preferred learning styles. The model suggests that people have different preferences for how they learn and process information. According to VARK, there are four primary learning preferences:

1. Visual (V): People who learn best through visual aids such as diagrams, charts, graphs, and other visual representations.
2. Auditory (A): Individuals who learn best through auditory means, such as lectures, discussions, and listening to information.
3. Read/Write (R): Those who prefer learning through reading and writing, including textbooks, written instructions, and note-taking.
4. Kinesthetics (K): People who learn best by engaging in hands-on activities, physical experiences, and practical applications of concepts.

The idea that knowing a students' preferred learning style can contribute to academic success is a topic that has generated significant discussion and debate within the educational field. This concept is often associated with learning style theory, which proposes that individuals have different preferences for how well they learn, such as through visual, auditory, kinesthetic, or other modalities. However, it is important to note that the concept of learning styles and their implications for teaching and learning is still controversial among researchers and educators. While it seems intuitive that adapting teaching methods to suit students' preferred learning styles will lead to more effective learning outcomes, research has shown mixed results. Many rigorous studies fail to provide strong evidence that adapting teaching methods to learning styles significantly improves student achievement. One study (Osman, Süleyman and Erdil, 2019) suggested that knowing the preferred learning style of students enables academic success by providing more effective solutions to problems encountered in the teaching-learning process

By understanding preferred learning styles, teachers can make informed decisions about instructional strategies and adapt student learning styles to better suit students' learning needs. Identifying learning styles can help students become more self-aware learners. When students understand their own preferences and strengths as learners, they can take responsibility for their own learning and make informed choices about how they approach new material. The teachers would gain insights into ways of making academic information more accessible to diverse groups of learners and increased learners' awareness of learning styles that can help educators impart new information in a memorable way (Wesonga and Aurah, 2019). Building Positive Teacher-Student Relationships: When teachers demonstrate an understanding of their students' learning styles, it showed that they value and respect individual

differences. This understanding can foster positive teacher-student relationships and create a sense of trust and rapport in the classroom.

It is possible to identify that the learning style has a positive contribution to the academic achievement of students. It has been proven by (Aboe, 2018) who conducted a study that investigated the correlation between students learning styles and their learning achievement of the English education study program at the Faculty of Teacher Training and Education, Khairun University. She found that 16% students English achievement influenced by students learning styles. Similar with (Fang-Mei, 2013) who conducted a study to determine the relationship between learning style preference and academic achievement of the secondary school students in Kenya. He found that the significance value (Sig.) is 0.000 smaller than probability 0.05. It means there is a positive relationship between learning styles and academic achievement. Therefore, this article attempts to investigate learning styles of the eleventh grade students at SMA Negeri 07 Kendari and the contribution of students learning styles to English achievement.

Method

This study applied a quantitative approach. The quantitative approach allows researchers to collect data numerically through statistical analysis of the sample using the instrument established (Creswell and Creswell, 2018). The design of this study used a survey research design. The survey research design is a procedure of quantitative research conducted to obtain a description of attitudes, behaviours, and characteristics of the population obtained through deep sampling (Creswell and Creswell, 2018). The type of survey used was a cross-sectional survey design, namely a research design that collects data one time for the sample (Creswell and Creswell, 2018).

The population of this study was the eleventh-grade students at SMA Negeri 07 Kendari in the academic year 2022-2023. The total number of classes was 7, with 144 students. The sampling technique used in this study was purposive sampling. According to (Creswell and Creswell, 2018) in a purposive sampling technique, the sample is satisfactory for certain needs. The sample for this study was 4 classes (84 students) from 7 classes (144 students) in SMA Negeri 07 Kendari. The following table provides a description of the eleventh grade in Negeri 07 Kendari.

Table 1. Descriptions of Research Participants from SMA Negeri 07 Kendari.

No	**Class**	**Numbers of Students**
1	**XI. IPA 1**	**22**
2	**XI.IPA 2**	**21**
3	XI.IPA 3	20
4	**XI.IPS 1**	**20**
5	**XI.IPS 2**	**21**
6	XI.IPS 3	20
7	XI. IPS 4	20
Total	**4 / 7**	**84 / 144**

The VARK Questionnaire version 8.01 was used to determine an individual's learning style preference. This questionnaire contains 16 statements related to various daily events, and for each statement, respondents are presented with four choices of actions that correspond to the Visual, Auditory, Read/Write, or kinesthetics learning styles. Based on the choices made by respondents, the questionnaire aims to assess their predominant learning style preference. Moreover, (Fitkov-Norris and Yeghiazarian, 2015) have validated the VARK Questionnaire using Rasch analysis and the results show that this instrument has the potentials to predict students' learning orientation preferences. The data was analyzed with the following steps: Identify participant responses, classify them into types of learning styles, and classify them into strong and weak preferences using descriptive statistical analysis with the mean criteria; (30-40) major learning style preference, (19-29) minor learning style preference, (0-18) negligible. The researcher took the original score from the students' final examination document before the teacher added another aspect to give a score and compared it with the students learning styles to uncover the contribution of students learning styles to English achievement.

Results and Discussion

The findings are presented in two main sections. The first section describes the English learning styles of the eleventh-grade students in SMA Negeri 07 Kendari, and the second section describes the contribution of the students' learning styles to the English achievement of the

eleventh-grade students in SMA Negeri 07 Kendari.

After collecting questionnaire data, the researcher conducted a descriptive analysis to find out the English learning style preference in this grade. Here are the detailed results of the questionnaire analysis:

Table 2. Descriptive Analysis of Questionnaires Descriptive Statistics

Descriptive Statistics

	N	Mean	Std. Deviation
Auditory	84	33.12	5.208
Read/Write	84	28.21	3.790
Kinesthetics	84	27.45	3.448
Visual	84	26.40	2.556
Valid N (listwise)	84		

The table showed that the majority of the eleventh-grade students in SMA Negeri 07 Kendari had an auditory learning style (with a mean of 33.12) as their major English learning style preference. Meanwhile, the read/write learning style is the students minor learning style preference. Followed by the kinesthetics learning style and the visual learning style. However, these results do not indicate that the auditory learning style is better than the other learning styles. It is only indicative of the major English learning style preferences during the process of English learning. Furthermore, to see how many students choose group learning as their major English learning style preference, the researcher conducted a frequency analysis. Here are the results of the frequency analysis of Auditory learning style types in this grade:

Table 3. Frequency Analysis of Auditory Learning Style

Table 3 showed that the majority of the students in this grade used auditory learning as their major English learning style preference. It means that 66 out of 84 students, or 78.6% of the students, learn better through auditory means, such as lectures, discussions, and listening to information. Meanwhile, 17 students, or 20.2% of the students, used auditory learning as their minor English learning style preference. It means that they are still able to learn the material through the auditory learning style, but they did not perform as well as the major ones did. In addition, there are 1 or 1.2% of students categorized as negligible, which means only one of the students in this grade can learn through the auditory learning style.

Table 4. Frequency Analysis of Read/Write Learning Style

Classification	Frequency	Percent	Valid Percent	Cumulative Percent
Major	32	38.1	38.1	38.1
Minor	51	60.7	60.7	98.8
Negligible	1	1.2	1.2	100.0
Total	84	100.0	100.0	

Table 4 showed that the majority of the students in this grade used read/write learning as their minor English learning style preference. It means that 51 out of 84 students, or 60.7% of the students, are still able to learn through reading and writing, including textbooks, written instructions, and note-taking, but they did not perform as well as the major ones did. Meanwhile, 32 students, or 38.1% of the students, used read/write learning as their major English learning style preference. They are read/write learners who better understand the material through reading and writing, including textbooks, written instructions, and note-taking. Moreover, there are 1 or 1.2% of the students categorized as negligible, which means they cannot learn through the read/write learning style.

Table 5. Frequency Analysis of Kinesthetics Learning Style

Classification	Frequency	Percent	Valid Percent	Cumulative Percent
Major	66	78.6	78.6	78.6
Minor	17	20.2	20.2	98.8
Negligible	1	1.2	1.2	100.0
Total	84	100.0	100.0	

Classification	Frequency	Percent	Valid Percent	Cumulative Percent
Major	25	29.8	29.8	29.8
Minor	58	69.0	69.0	98.8
Negligible	1	1.2	1.2	100.0
Total	84	100.0	100.0	

Table 5 showed that the majority of the students in this grade used kinesthetics learning as their minor English learning style preference. It means that 58 out of 84 students, or 69% of the students, are still able to learn by engaging in hands-on activities, physical experiences, and practical applications of concepts, but they did not perform as well as the major ones did. Meanwhile, 25 students, or 29.8% of the students, used kinesthetics learning as their major English learning style preference. They are kinesthetics learners who better understand the material by engaging in hands-on activities, physical experiences, and practical applications of concepts. Moreover, there are 1 or 1.2% of the students categorized as negligible, which means they cannot learn through the kinesthetics learning style.

Table 6. Frequency Analysis of Visual Learning Style

Classification	Frequency	Percent	Valid Percent	Cumulative Percent
Major	12	14.3	14.3	14.3
Minor	72	85.7	85.7	100.0
Negligible	0	0	0	100.0
Total	84	100.0	100.0	

Table 6 showed that the majority of the students in this grade used visual learning as their minor English learning style preference. It means that 72 out of 84 students, or 85.7% of the students, are still able to learn through visual aids such as diagrams, charts, graphs, and other visual representations, but they did not perform as well as the major ones did. Meanwhile, 12 students, or 14.3% of the students, used visual learning as their major English learning style preference. They are visual learners who better understand the material through visual aids such as diagrams, charts, graphs, and other visual representations. Moreover, 0% of the students are categorized as negligible, which means they cannot learn through the visual learning style.

The second section described the contribution of the students' learning styles to the English achievement of the eleventh-grade students in SMA Negeri 07 Kendari. The researcher took the original score from the students' final examination document before the teacher added another aspect to give a score and compared it with the students learning styles to uncover the contribution of students learning styles to English achievement. Moreover, the researcher used simple linear regression to analyze the data.

Simple linear regression was used to measure the contribution of the independent variable to the dependent variable. Before carrying out a simple linear regression test, the normality test, linearity test, and heteroscedasticity test must be fulfilled first as eligibility requirements for a simple linear regression test. The simple linear regression steps are as follows:

Normality analysis

The Kolmogorov-Smirnov (KS) test is a statistical test used to assess whether a given sample comes from a particular distribution, often the normal distribution. It helps to determine if a dataset follows a specified theoretical distribution or if it significantly deviates from it. The basis of decision making in Kolmogorov-Smirnov normality analysis is as follows:

1. If the significance value (Sig.) is higher than probability 0.05, it means that the data are normally distributed.
2. If the significance value (Sig.) is smaller than probability 0.05, it means that the data are not normally distributed.

Table 7. Normality Analysis

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		84
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	11.54743620
Most Extreme Differences	Absolute	.119
	Positive	.119
	Negative	-.069
Test Statistic		.119
Asymp. Sig. (2-tailed)		.200[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

The table 7 showed that the significance value (Sig.) in Asymp. Sig (2-tailed) value was 0.200 higher than probability 0.05, it means that the data was normally distributed. It can be concluded that one of the three requirements for simple linear regression analysis has been

fulfilled, and then it can be continued to analyze the second requirement.

Linearity analysis

Linearity analysis, often referred to as checking for linearity, is a process used in statistics and data analysis to assess whether there is a linear relationship between variables. It's particularly important in regression analysis, where the goal is to model the relationship between one or more independent variables (predictors) and a dependent variable (response) using a linear equation. The basis of decision-making in linearity analysis:

1. If the deviation from linearity significance value (Sig.) is higher than probability 0.05 it means there is a linear significant relationship between the independent variable and the dependent variable.
2. If the deviation from linearity significance value (Sig.) is smaller than probability 0.05 it means there is no linear significant relationship between the independent variable and the dependent variable.

Table 8. Linearity analysis

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Achievement * Learning Styles	Between Groups	(Combined)	6021.713	11	547.428	4.030	.000
		Linearity	4735.317	1	4735.317	34.857	.000
		Deviation from Linearity	1286.396	10	128.640	.947	.497
	Within Groups		9781.097	72	135.849		
	Total		15802.810	83			

Table 8 showed that the significance value (Sig.) in Deviation from Linearity value was 0.447 higher than the probability of 0.05, which means there is a linearly significant relationship between the students learning style and English achievement. It can be continued to analyze the third requirement.

Heteroscedasticity analysis

Heteroscedasticity analysis is a process used in statistics to assess whether the variability of errors (residuals) in a regression model is constant across all levels of the independent variables. In simpler terms, it checks whether the spread or dispersion of residuals is the same for all values of the predictors. Here is the basis of decision-making in heteroscedasticity analysis:

1. If the significance value (Sig.) is higher than probability 0.05, it means the heteroskedasticity indication does not occur in the regression model.
2. If the significance value (Sig.) is smaller than probability 0.05, it means the heteroskedasticity indication occurs in the regression model.

Table 9. Heteroscedasticity analysis

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	15.773	10.714		1.472	.145
	Learning Styles	-.097	.145	-.073	-.666	.507

a. Dependent Variable: Abs_RES

Table 9 showed that the significance value (Sig.) was 0.507 higher than the probability of 0.05, which means that the heteroskedasticity indication did not occur in this regression model. From this result, it can be concluded that all of the requirements for simple linear regression analysis have been fulfilled. The next step is to perform a simple linear regression analysis to measure the contribution of one independent variable to one dependent variable.

Simple linear regression analysis

The researcher conducted the hypothesis test to find out if there was a significant relationship between the students learning styles and their English achievement. The hypothesis proposed by the researcher was:

H0 = there is no significant relationship between the students' learning styles and their English achievement. Ha = there is a significant relationship between the students' learning styles and their English achievement. Here is the basis of decision-making in hypothesis analysis is:

1. If the significance value (Sig.) is higher than probability 0.05, it means there is no significant relationship between the students learning styles and the English achievement.
2. If the significance value (Sig.) is smaller than probability 0.05, it means there is a significant relationship between the students learning styles and the English achievement.

Table 10. Hypothesis Analysis

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	76.552	16.352		4.681	.000
	Learning Styles	1.313	.222	.547	5.923	.000

a. Dependent Variable: Achievement

Table 10 showed that the significance value (Sig.) was 0.000 smaller than the probability of 0.05, which means that there is a significant relationship between the students learning styles and their English achievement. The requirements to determine the contribution of the independent variable to the dependent variable have been fulfilled. The result of simple linear regression analysis refers to the value of R Square:

Table 11. Analysis of the Contribution Independent Variable to the Dependent Variable

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.547[a]	.300	.291	11.61763

a. Predictors: (Constant), Learning Styles

Table 11 showed that the R Square value was 0.300, so it can be concluded that the contribution of students learning styles to the English achievement of the eleventh-grade students in SMA Negeri 07 Kendari was 30%. Meanwhile, 70% of the English achievement was influenced by the other variables that were not examined in this study.

Based on the finding, it was found that the most dominant learning style among students was the Auditory Learning Style. The researcher concluded that the success rate of students in the learning process is highly influenced by their learning style and how they process information in the classroom. These descriptions align with the general understanding of how auditory learners prefer to engage with language learning, focusing on listening to spoken language,

participating in conversations, and using their verbal skills to understand and communicate effectively in English.

The implication of this finding is that educators should consider tailoring their teaching approaches to accommodate different learning styles, with a particular focus on auditory learners. This might involve using methods such as interactive discussions, audio resources, oral presentations, and group activities that encourage active participation through listening and speaking. The students who have a strong preference for auditory learning are more likely to achieve better outcomes in their learning endeavors. Since they excel in processing information through listening and speaking, incorporating teaching methods that align with their learning style can contribute to their success.

Furthermore, understanding and acknowledging the diversity of learning styles within a classroom can lead to a more inclusive and effective educational environment. However, it's also important to note that while learning styles can play a role in student success, they are just one aspect of a complex set of factors influencing learning outcomes. Teaching methods should also consider other factors such as the subject matter, instructional techniques, and individual strengths and weaknesses of students. Evidence also abounds that matching teaching strategies and learning styles has a positive impact on the academic achievement and learning outcomes and that the match of teaching and learning styles in tertiary learners' second language acquisition can effectively improve students achievement (Liu and He, 2014). Similarity (Brady, 2013) stated that by understanding different learning styles, the teachers would gain insights into ways of making academic information more accessible to diverse groups of learners and increased learners' awareness of learning styles that can help educators impart new information in a memorable way.

The other finding in this study showed there was a significant relationship between the students learning styles and their English achievement, with the significance value (Sig.) being 0.000 smaller than the probability of 0.05 and the contribution of the students' learning styles to the English achievement of the eleventh-grade students in SMA Negeri 07 Kendari being 30%. The R Square value is 0.300.

In other words, the study suggested that there was a connection between how students prefer to learn (their learning styles) and their success in learning English. This implied that when educators consider and accommodate students' preferred learning styles while teaching English, it can potentially lead to improved academic outcomes. For instance, if a student is a visual learner, they might benefit from using visual aids like diagrams or videos to enhance their understanding of English concepts. Similarly, an auditory learner might benefit from discussions and listening exercises.

According to (Hidayah *et al.*, 2022) who conducted study involved 33 students of English Education Study Program, Tadulako University Batch 2018, Academic Year 2021–2022. The result showed that there is positive correlation between learning styles and academic achievement of students of English Education Study Program, Tadulako University Batch 2018. However, the level of correlation is moderate. It means that learning style is not the main factor contributing to the students' academic achievement. There are other factors contributing to the academic achievement. Moreover, (Sartika, Hatim and Rosmiyati, 2023) who conducted study to investigate the English learning styles students at Nurul Huda Senior High School and their correlation with English achievement. The result founded that the significant value (sig.2-tailed) was 0,002 it is less than 0,05 (0,002<0,05). It has meaning that Ho is rejected and Ha is accepted or there is significant correlation between the students Learning Style and their English achievement of SMA Nurul Huda.

Conclusion

There are two points that can be drawn from this study. The first point is that the majority of the students (66 out of 84 students) at the eleventh SMA Negeri 07 Kendari used auditory learning as their major English learning style preference. It means that the auditory learning style is the most preferred learning style by students in the English teaching and learning process. Meanwhile, the majority of the students (72 out of 84) at the eleventh SMA Negeri 07 Kendari used visual learning as their minor English learning style preference. It means that the visual learning style is the least preferred learning style by students in the English teaching and learning process.

The second point, there was a significant relationship between the students' learning styles and their English achievement, with the significance value (Sig.) being 0.000 smaller than the probability of 0.05 and the contribution of the students' learning styles to the English achievement of the eleventh-grade students in SMA Negeri 07 Kendari being 30%, the R Square value being 0.300. It means that learning style is not the main factor contributing to the students' academic achievement.

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