



## Students' Learning Styles (VRAK Model) in Learning English

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### Abstract

Many teachers still remain unaware of their students' learning styles, which hinders their ability to consider individual student preferences and optimize instructional methods. This research aims to investigate students' learning styles using VRAK (visual, read-write, audio, and kinesthetic) model by Fleming in English language learning. The study adopted a qualitative research design and utilized the case study method involving 27 students at Senior High School 1 Sungai Penuh, Jambi. Data were collected through interviews and observations. Qualitative thematic analysis was employed, involving three stages: data reduction, data display, and conclusion drawing or verification. The findings reveal that 56% of the students possess a kinesthetic learning style. The remaining 22%, 11%, and 11% of students have visual, auditory, and read-write learning styles, respectively. Understanding students' diverse learning styles in the context of English language learning has significant implications for instructional practices. It enables teachers to optimize their efforts in selecting and implementing differentiated teaching methods tailored to their students' individual needs.

**Keywords:** English learning, Learning styles, VRAK

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## **INTRODUCTION**

An effective learning process should be differentiated, catering to the diverse needs of each student (Gibbs & McKay, 2021). Differentiated learning has been implemented since the introduction of the independent curriculum in Indonesia (Mastuti et al., 2022; Sulistyosari et al., 2022). In such a classroom, there are various student characteristics, levels, and conditions. As a result, teachers are required to gain insights into students' learning styles to adapt their teaching methods and address individual needs during the instructional process. Understanding and implementing differentiated learning techniques enable educators to create a dynamic and inclusive learning environment that fosters optimal learning outcomes for all students (Tomlinson, 2014).

Understanding students' learning styles is crucial to help educators select appropriate pedagogy including teaching strategy (Spencer-Waterman, 2014), facilitating effective knowledge transmission (Cardino & Ortega-Dela Cruz, 2020). It allows personalized instruction that caters to individual needs, leading to improved learning outcomes and student engagement (Almasri, 2022). Additionally, accommodating diverse learning styles fosters inclusivity and acknowledges the uniqueness of each student. By aligning teaching methods with students' preferences, educators can enhance motivation and address learning challenges early on, optimizing resource allocation for an efficient learning experience. Identifying students' learning preferences can help teachers identify areas where students may need additional support. This awareness allows for targeted interventions to address specific language learning challenges. Encouraging students to reflect on their learning styles promotes self-awareness and metacognitive skills. Students can develop a deeper understanding of their learning processes, enabling them to become more independent and effective language learners. By knowing students' learning styles, teachers can make informed decisions about the selection and use of teaching materials, technology, and resources that align with individual preferences.

Learning style, also known as the different types or models of learning, is a crucial factor that demands consideration. It refers to how students uniquely respond to and acquire information through various preferences and stimuli encountered during the learning process (Pashler et al., 2008; Supit et al., 2023). Moreover, (Pramesti & Ratnadi, 2020), learning style is related to how he learns and influences material absorption. English learning is how to acquire knowledge, or skill in, something through studying and teaching in the process of learning. Individuals' process of developing insight is based on a variety of experiences. In summary, learning styles refer to the varied approaches through which individuals prefer to engage in the cognitive processes of processing, retaining, and comprehending information. The aforementioned concept acknowledges the existence of unique learning styles among students, and educators can optimize their teaching methods by understanding these preferences, resulting in improved learning outcomes (Cardino & Ortega-Dela Cruz, 2020). While comprehension of students' learning styles provides valuable insights into their optimal information processing (Rais & Aryani, 2017).

There are four learning style models, namely VARK (Visual, Auditory, Read and Write, Kinesthetic), which was extended from the original VARK model by Neil Fleming (Fleming, 2006) Learning style is defined as an individual's preferred ways of gathering, organizing, and processing information. VARK is a learning inventory grouped under instructional preference model (Balasubramaniam & K, 2016). Visual learners prefer learning through pictures, graphs, videos, and graphics but may struggle to take complete notes during presentations. Auditory learners, on the other hand, prefer learning through listening, such as by listening to spoken

explanations, music, discussions, and verbal instructions. Individuals with read and write learning style favor words and texts as their primary method of obtaining information. Kinesthetic learners, on the other hand, engage best with physical movement during their studies, preferring hands-on work, practical applications, projects, and real experiences (Chaudhry et al., 2020; Saran et al., 2015).

It is important to acknowledge that there is no one-size-fits-all approach to teaching (Gudnason, 2017). To enhance students' focus, concentration, and learning process, teachers should design and implement their lessons while considering diverse learning styles. The previous studies also highlighted the significance of incorporating multiple strategies to accommodate students' various learning styles, which positively impacts their achievement and satisfaction (Cheng & Chau, 2016; Nurmayani et al., 2017). Mismatches between students' preferred learning methods and teachers' teaching strategies may lead to boredom, inattentiveness, poor test performance, and discouragement about the curriculum.

The customization or differentiated learning based regarding students' varied learning styles can lead to more effective learning outcomes, increased student engagement, and a positive learning experience overall (Ayu Sri Wahyuni, 2022; Pablico et al., 2017). Regarding English language learning specifically, considering learners' diverse learning styles becomes even more crucial. As English language learners come from various cultural and linguistic backgrounds, their preferred learning styles might differ significantly. For instance, some students might prefer visual aids to understand new vocabulary, while others may learn better through listening and speaking activities. Not understanding students' learning styles can lead to a standardized approach to instruction, causing a mismatch between teaching methods and individual preferences. This can result in reduced engagement, unaddressed learning difficulties, and disengagement among students (Abdurrahman & Kibtiyah, 2021). Therefore, it is highly needed to understand students' learning style and explore specific alternative teaching strategies that align with those diverse learning styles (Xu, 2011).

Building upon the curriculum, teaching materials, and instructional approaches should be tailored to meet the diverse needs of learners, considering their physical abilities, cognitive levels, and social-emotional aspects (Deunk et al., 2015). However, the reality shows that many teachers still lack an understanding of their students' learning styles, leading to the neglect of student learning preferences (Dewantara et al., 2021). Preliminary observations at Senior High School 1 Sungai Penuh revealed that the teacher uses the same teaching strategies for all students in tenth grade IIS. For instance, the teacher relies heavily on PowerPoint presentations containing text displayed through a projector, which can make learning monotonous for some students. This issue arises due to the teacher's limited understanding of their students' learning preferences.

The issue about students' learning styles has been widely researched (Cheng & Chau, 2016; Nurmayani et al., 2017; Rais & Aryani, 2017; Sakti et al., 2019; Sundayana, 2016; Supit et al., 2023; Wahyuni, 2017; Wassahua, 2016). These researches examines the concept of learning styles, the influence of learning styles, and the identification of learning styles using the VAK model (visual, auditory, and kinesthetic). However, studies specifically focusing on identifying students' learning styles in the context of English language learning using the VARK model by Neil Fleming remain limited. Therefore, this study aims to identify and analyze students' learning styles in learning English using the VARK model by Fleming. The study seeks to shed light on the individual learning preferences of students and how they can be integrated into the English language learning process effectively.

## **METHOD**

### **Research Design**

This research utilized a qualitative design and employed a case study approach. The case study method was chosen as it involves a comprehensive analysis of an individual circumstance or event, either because it is representative, unique, problematic, or exemplary in nature.

### **Participants**

This research involved 27 students of 10th grade at Senior High School 1 Sungai Penuh located on Jl. Arif Rahman Hakim Kota Sungai Penuh, Jambi, Indonesia. The research was conducted from January 27, 2022, until February 28, 2022. The researcher employed purposive sampling, a method closely associated with qualitative research, to select participants and research sites that aligned with the phenomenon and research problem under study.

### **Instruments and Data Collection**

To collect the data, the researcher employed both interviews and observations. During the interviews, the researcher asked the students to describe their learning styles, and to supplement the interview findings, observations were also conducted. The researcher attended the classes and observed the students during their English language learning process. This observation aimed to provide a comprehensive description of the students' learning styles. Although the researcher took pictures and recorded behaviors, they remained a non-participant, solely observing the learning and teaching activities in the classroom. The researcher diligently noted their observations using field notes to accurately document the observed events and occurrences.

### **Data Analysis**

Data were qualitatively analyzed using a thematic analysis. Analysis is inductive, where the results of qualitative research emphasize meaning rather than generalization (Dewantara et al., 2023). The researcher analyzed the data by using data reduction, data display, conclusion drawing, or verification (Huberman & Miles, 2019). In data reduction, after interviewing the students, the data or the answers from student interviews, it reduced as needed of the researcher. In the data display, the researcher made a narration to present the data obtained by classified types of learning styles that are used by the students according to the types of learning styles by Fleming. After the researcher presenting the data, the researcher explained what the tenth grades students' learning styles were, by concluded the findings of the research.

## **FINDINGS AND DISCUSSION**

### **Findings**

This part is presented to answer the research questions. *“What are the students' learning styles in learning English at tenth-grade senior high school 1 Sungai Penuh?”*. The researcher presents the result of the data obtained through interviews and then analyses students' learning styles based on the Fleming VARK model. In answering the research question, based on the results of interviews between the researcher and students, the researcher found that there were variations in learning styles among students in the class.

Based on the identification and analysis of the data, the learning preferences and learning styles of students can be categorized into four groups as shown in the following distribution (Figure 1).

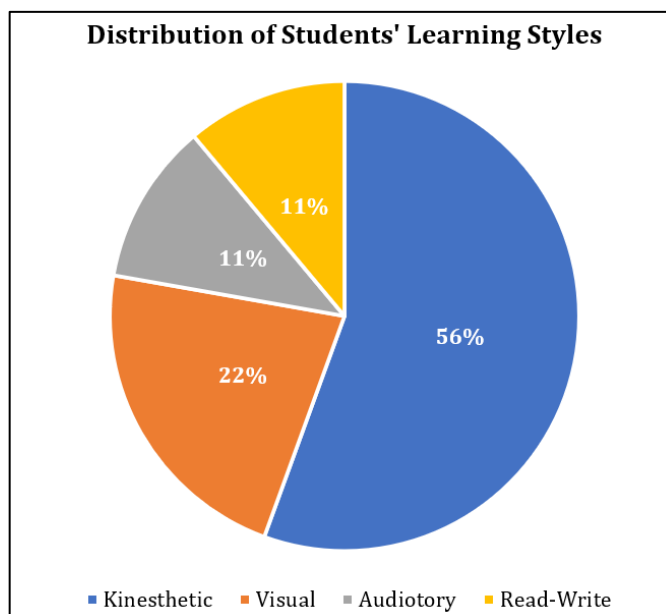


Figure 1. Character model development for early childhood learners

### Visual Learning Style

The interview results revealed that six students or 56 % (see Figure 1) highly appreciate the use of visual media in the learning process. Some students expressed their fondness for videos and PowerPoint presentations. Student S-5 enthusiastically stated, "Watching videos and PowerPoint presentations makes complex topics easier to understand, and it feels like I am part of an interactive experience." This finding was reinforced by student S-12, who mentioned, "PowerPoint presentations work wonders for me. The combination of visuals and concise information helps me retain the material better."

Furthermore, the students demonstrated a keen interest in the use of infocus and captivating images during lessons. Student S-4 passionately expressed, "I love how animations and infocus usage bring life to the lessons, making them more engaging and interesting." Similarly, Student S-21 shared, "Having infocus with captivating images during lessons is enjoyable, and it keeps me engaged throughout the class." Additionally, some students highlighted the importance of detailed explanations with visual support. Student S-16 stated, "I find PowerPoint presentations impressive and effective in organizing information, making it easier to follow along." Student S-11 added that visual aids like images and detailed explanations keep her attention intact and make she feel more connected to the subject matter.

Overall, the interview results emphasize the strong preference of several students for visual learning approaches, such as videos, PowerPoint, infocus, and captivating images. These visual aids not only facilitate better understanding of the subject matter but also create a dynamic and engaging learning environment. Some students prefer some visual activities such as looking at pictures, graphs, videos, and graphics which can enhance their interest and motivation in the learning process.

### **Audiotory Learning Style**

Interview data also reveals a significant preference for the auditory learning style among some students. Based on Figure 1, there was three students (11%) who have dominant audiotory learning styles. This findings based on the analysis of observation and interview result. Student S-7 stated, *"I prefer listening attentively to what the teacher conveys and paying close attention because I find it easier to understand the material through this method."* Similarly, Student S-8 enthusiastically shared, *"I enjoy learning through listening. Reading on my own can be challenging, but when I hear the explanations, it feels more accessible and easier to comprehend."* Moreover, another student (S-14) emphasized their direct learning approach, stating, *"I like to listen directly to the teacher's explanations because it's more comprehensible to me."* Student S-14 highlighted her preference for directly hearing the teacher's explanations, as they find it more comprehensible.

These interviews demonstrate that several students exhibit a strong inclination towards the auditory learning style, showing a preference for processing information effectively through hearing and listening. In line with their learning preferences, educators can incorporate auditory-based approaches such as engaging lectures, interactive discussions, or the use of audio resources to enhance the learning experience for these students.

### **Read-Write Learning Style**

The interview data reveals that three other students or 11% (see Figure 1) prefer different methods to enhance their learning experience. Student S-1 prefers to take notes and write down the key points from the teacher's explanations. They find it beneficial in better understanding and clarity. On the other hand, Student S-13 learning preference involves reading and taking notes in a book, as they find it easier to comprehend the subjects through reading and writing. Additionally, Student S-22 highlights the simplicity of read-write approach and emphasizes the significance of writing as it aids in better retention of information.

These findings indicate that some students have varied learning preferences, with some relying on note-taking and writing to aid their understanding, while others favor reading and writing as their preferred learning style. These individual preferences highlight the importance of offering diverse learning strategies to accommodate the needs of different students in the classroom.

### **Kinesthetic Learning Style**

The interview data indicates a strong inclination towards the kinesthetic learning style among the students, with 15 individuals or more than 56% (see Figure 1) showing indications of having this preference. These students exhibit a keen interest in hands-on experiences and practical learning activities. Some students expressed their fondness for classroom exercises and practices. For example, one student (S-9) mentioned, *"I like having exercises or practice in the classroom because I enjoy it."* Similarly, another student (S-3) stated, *"I prefer learning through practice because I like moving around, and usually, we do the practice in groups."* These quotes emphasize their enjoyment and engagement in hands-on activities during the learning process.

Furthermore, there are students who find value in role-playing and being active participants in the learning environment. One student (S-10) enthusiastically shared, *"I like to play roles because I'm an active person, and when I appear like that, the lesson becomes easy."* Additionally, another student (S-15) expressed, *"I prefer being included, like taking a role*

*because I'm an active person.*" These students' preference for active involvement showcases their engagement and ease of understanding when they can interact with the subject matter.

Moreover, a common theme among the students is the emphasis on the combination of explanations and practical applications. One student (S-7) stated, *"I prefer explanations followed by practice because I find it easier to understand through practice."* Similarly, another student mentioned (S-2), *"I like it when explained slowly and accompanied by practice in front of the class because it's easier to understand."* These students believe that the integration of explanations with hands-on learning enhances their comprehension.

From the interviews, it is evident that students with a kinesthetic learning style preference thrive in an interactive and practical learning environment. Educators can leverage this learning preference by incorporating various hands-on activities, role-playing, and in-class practices to facilitate better understanding and retention of information. The research findings can be summarized and categorized based on themes as presented in the following Table 1.

**Table 1.** Student learning preferences

Tendency in Learning Process	Findings of Student Responses	Learning Styles
Learning by looking at pictures, graphs, videos, and graphics. Could not take complete notes during the presentation.	Some student preferences: <ul style="list-style-type: none"> <li>• Prefer the way of explaining by showing a video or ppt, because it is easier to understand.</li> <li>• Using animation or PPT by projector so it might be more interesting.</li> <li>• The pictures usage makes material delivery in learning more interesting.</li> </ul>	Visual
Receive learning by listening method, by speaking or from music, discussion, and explanation.	<ul style="list-style-type: none"> <li>• Students prefer to listen while reading by theirselves.</li> <li>• Some students can easily understand by paying attention and carefully hearing what the teacher says.</li> </ul>	Auditory
Prefer words and texts as an information-obtaining method. They like presentation style, by text or writing.	Some students' preferences: <ul style="list-style-type: none"> <li>• Usually write a note in book, making it is easier to remember the materials.</li> <li>• Some students always write down the important points from the teacher's explanation, so that they are easier to understand and clearer.</li> </ul>	Read-write
More likely to experience physical movement aspects while studying, such as touching, feeling, holding, performing, and moving something. They prefer hands-on work, practical, project, and real experience.	Some students' preferences and perceives: <ul style="list-style-type: none"> <li>• Practicing helps with easy lesson retention.</li> <li>• By explaining and practicing, understanding improves more quickly.</li> <li>• While practicing, explanations enhance comprehension.</li> <li>• Enjoying exercises or practices in the classroom.</li> <li>• Being an active person, role-playing facilitates learning.</li> <li>• Engaging in activities during studying is preferred to maintain interaction.</li> <li>• Finding joy in movements and often preferring group practice.</li> <li>• Coming on stage boosts confidence and aids in lesson memory.</li> <li>• Taking roles and being included suit active personalities.</li> <li>• Preferring practice sessions that are somewhat less serious.</li> <li>• Practicing in front of the class enhances understanding.</li> </ul>	Kinesthetic

## **Discussion**

Regarding the data obtained from the interviews and observations above, the researcher found that there were four learning styles used by the students, such as visual, auditory, read-write, and kinesthetic. Based on that, the researcher can mention that students have different learning styles among each other. It is also stated by Pramesti & Ratnadi (2020) that learning style is related to how he learns and influences material absorption. Out of the four types of learning styles, the research results indicate a majority of students exhibiting a kinesthetic learning style preference. Fifteen students mentioned their fondness for hands-on experiences and active learning. They expressed enthusiasm for classroom exercises, role-playing, and practical applications of the learned material. These students find that being actively involved in the learning process enhances their comprehension and memory retention. The integration of explanations and practical applications was particularly emphasized by some participants as an effective approach to their learning. To accommodate kinesthetic learners, educators should incorporate interactive activities, experiments, and group-based projects into their teaching methods. Providing opportunities for students to engage in hands-on learning and physical movement can create a dynamic and engaging learning environment that caters to the needs of kinesthetic learners.

These findings is also in line with the previous research that EFL students of Samudra University preferred to learn English with a kinesthetic learning style (Isda et al., 2019). The other studies also reveal that most of students have kinesthetic learning style (Fendrik et al., 2022; Ibrahim & Hussein, 2016). Kinesthetic learners prefer to learn by experience and practice. it can be seen from the students who like to do a lot of movements when learning takes place, they take part in the learning process by making movements while learning, moving actively, appearing in front of the class, and cannot just stay on the seat, this made them comfortable and understand the subject matter being delivered by the teacher. In this modality, to remember or understand something is better by touching it (De Porter & Hernacki, 2000). Individuals who have a kinesthetic learning style tendency, when it comes to learning to be physically involved in hands-on activities, can learn better. Kinesthetic learners respond to physical rewards such as touching people to get their attention, stand close when talking to someone, are physically oriented and move a lot, learn by manipulating and doing, memorize by walking and looking, use fingers as a pointer when reading a lot of movements, can't sit still for long periods of time, cannot remember geography unless they've been there using action words.

The next learning style is visual. The research findings indicate that only 22% of students have a tendency towards visual learning. This result is slightly different from previous studies that showed visual learning as the most commonly possessed learning style by students (Chaudhry et al., 2020; Ibrahim & Hussein, 2016). Students with a visual learning style respond strongly to visual resources, such as charts, pictures, diagrams, maps, flow charts, and highlighted text. This is evident from the students who expressed their fondness for interesting animated videos, pictures, and PowerPoint presentations during the interviews. Visual learners find these visual representations to be engaging and helpful in understanding complex topics.

Moreover, the research also revealed that students with a visual learning style tend to learn by looking at pictures, graphs, videos, and graphics. They may struggle to take complete notes during presentations as they focus on processing visual information. This further confirms the significance of using visual aids in the classroom to cater to the needs of visual learners. By incorporating more visual elements in their teaching methods, educators can

create an enriching learning experience for visual learners, providing them with the opportunity to comprehend and retain information effectively.

The next learning style is auditory learning. Only 11% students in this study have this learning style. This result is slightly different from previous study that showed auditory learning as the most commonly possessed learning style by students (Wahyuni, 2017). According to De Porter & Hernacki (2000), auditory learners enjoy listening to what other people have to say and tend to better understand tasks when explanations are given orally. This is evident from the students who expressed their enjoyment in listening to the teacher's explanations during the interviews.

Moreover, the research also reveals that students with an auditory learning style learn better and understand information faster by listening. They tend to receive learning through listening methods, such as lectures, discussions, and oral explanations. The students' inclination towards auditory engagement further emphasizes the significance of incorporating auditory-based approaches in the classroom. The use of audio resources, group discussions, and interactive lectures can enhance the learning experience for auditory learners. By providing opportunities for students to engage in active listening and oral interactions, educators can cater to the unique needs of auditory learners and foster their understanding of the subject matter.

Furthermore, the research findings indicate a slight preference for read-write learning among the students. According to Fleming (2006), students with a read-write learning style learn best by reading and writing on their notes or books. They feel more comfortable with written resources, such as textbooks and lecture notes. Students with a read-write learning style prefer obtaining information through words and texts. They enjoy learning through written presentations, such as texts or writing. The use of written materials, note-taking, and reading helps them process information effectively and aids in their comprehension. To support read-write learners, educators can provide well-structured written materials and encourage note-taking during lectures. Offering a variety of written resources, such as textbooks and handouts, can create a conducive learning environment for read-write learners. Additionally, facilitating discussions that involve written expression can further enhance their understanding and retention of information.

The findings regarding the different learning styles (Visual, Auditory, Read-Write, and Kinesthetic) have significant implications for understanding students' learning preferences in the context of English language learning. These insights can inform instructional practices and interventions in several ways: (1) Personalized learning: Recognizing that students have diverse learning styles allows educators to tailor their teaching approaches to better match individual preferences (Hall & Moseley, 2005). By catering to students' preferred learning styles, teachers can create a more engaging and effective learning experience, which can lead to improved retention and understanding of English language concepts, (2) Enhanced engagement: Understanding that some students are visual learners, who respond well to visual aids like charts, diagrams, and multimedia presentations, allows teachers to incorporate more visually stimulating materials into their lessons (Almasri, 2022). This can enhance student engagement and foster a deeper connection with the subject matter. (3) Effective communication: for auditory learners, who learn best through listening and oral explanations, teachers can focus on providing clear and comprehensive verbal instructions. Group discussions and audio resources can be utilized to facilitate effective communication and comprehension. (4) Hands-on learning: kinesthetic learners prefer experiential and practical learning methods. Incorporating hands-on activities, interactive exercises, role-playing, and

real-life experiences can appeal to these students, making the language learning process more enjoyable and effective for them.

(5) Adapting assessment methods: different learning styles may require adjustments in assessment methods. For instance, read-write learners might excel in written assessments, while Kinesthetic learners might perform better in practical, performance-based assessments. By diversifying assessment approaches, teachers can better gauge students' understanding and progress. (6) Creating an inclusive learning environment: acknowledging and accommodating various learning styles fosters a more inclusive learning environment (Tomlinson, 2014). Students who feel that their preferred learning style is valued are more likely to actively participate and feel motivated to learn. (7) Identifying students' struggles: by understanding students' learning preferences, teachers can identify learners who may be struggling due to a mismatch between their learning style and instructional methods (Abdurrahman & Kibtiyah, 2021). Early identification of these issues allows for targeted interventions to support struggling students, and (8) Flexibility in teaching strategies: emphasizing a variety of instructional methods benefits all students, regardless of their primary learning style. Offering a mix of visual, auditory, read-write, and kinesthetic approaches ensures that all students have the opportunity to engage with the material in ways that suit them best.

## **CONCLUSION**

Referring to the result and discussion, the researcher could conclude that the students at senior high school 1 Sungai Penuh used four learning styles, such as Visual, Auditory, Read-Write, and Kinesthetic (VARK). The findings reveal that 56% of the students possess a kinesthetic learning style. The remaining 22%, 11%, and 11% of students have visual, auditory, and read-write learning styles, respectively. Kinesthetic learning style is the preferred learning style of students at senior high school 1 Sungai Penuh. Understanding students' diverse learning styles in the context of English language learning has significant implications for instructional practices. Tailoring teaching approaches to cater to individual preferences enables a more engaging and effective learning experience, leading to improved retention and comprehension. Visual learners benefit from visual aids, Auditory learners thrive with clear verbal instructions and discussions, Read-Write learners excel with written materials, and Kinesthetic learners prefer hands-on activities. Adapting assessment methods, creating an inclusive environment, identifying struggling students, and employing flexible teaching strategies further enhance the overall learning process and support student success. Based on the conclusion above, the researcher highly recommends both teachers and students know about students' learning styles, so that the students can easily understand the lesson and enjoy the learning process, and teachers, they can fit their teaching style with students' learning styles. Furthermore, the next research recommendation is to explore more about the media of learning that can be used by the teacher to support the students' learning styles in the class.

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