

Learning Style Profiles of EFL Students in a Private Boarding School

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ABSTRACT

The diversity of students' learning styles is an important aspect of English as a Foreign Language (EFL) instruction, particularly in boarding school contexts where learning tends to be more structured and intensive. However, studies examining the learning style profiles of EFL students in private boarding schools remain limited. This study aims to describe the distribution of students' learning styles based on the Visual, Auditory, and Kinesthetic (VAK) model and to identify the most dominant learning style. This study employed a quantitative approach with a descriptive survey method. Data were collected through a closed-ended questionnaire administered to 50 EFL students in a private boarding school and analyzed using descriptive statistics, including frequency, percentage, mean, median, and mode. The findings reveal that the kinesthetic learning style was the most dominant category, followed by auditory and visual styles. This suggests that most students respond better to active, practical, and physically engaging learning experiences. From a broader perspective, the findings indicate that learning preferences are contextual and should not be treated as universal categories applicable to all educational settings. In the boarding school context, where students follow structured daily routines and extended learning activities, EFL instruction needs to provide more opportunities for movement-based, collaborative, and practice-oriented learning. This study concludes that mapping students' learning styles can serve as an initial basis for designing more multimodal, flexible, and responsive EFL instruction. Therefore, teachers are encouraged to develop learning strategies that combine visual, auditory, and kinesthetic activities in a balanced manner.

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Introduction

English as a Foreign Language (EFL) learning requires teachers to understand the diverse ways in which students receive, process, and respond to instructional materials. In the Indonesian context, this need is important because exposure to English outside the classroom is relatively limited, making the effectiveness of learning strongly influenced by teaching strategies at school. In the context of private boarding schools, EFL learning has more distinctive characteristics because students' learning rhythms tend to be more structured, intensive, and situated within a collective learning environment. Therefore, mapping students' learning preferences can help teachers understand students' learning tendencies as an initial basis for designing more varied, active, and responsive instruction.

Recent studies show that EFL students' learning preferences are not always uniform across educational levels and contexts. Indrayani et al. (2024) found that EFL students in a critical reading course showed a greater preference for visual learning, followed by kinesthetic and auditory preferences, while some students demonstrated multimodal preferences such as visual-kinesthetic and visual-auditory. Wandah et al. (2024), in a study on listening instruction, showed that students with different learning preferences used different strategies; learning that combines visual aids, audio, and hands-on activities can create a more inclusive learning space. Meanwhile, the systematic review by Rahmanu and Molnár (2024) of 34 articles showed that multimodality in English language learning is associated with improvements in students' language skills and communicative competence. These findings indicate that understanding learning preferences remains relevant, particularly when used as a basis for developing multimodal learning, rather than as fixed labels that limit students.

Nevertheless, several clear research gaps remain. First, most recent studies on EFL learning styles have been conducted with university students, students in regular schools, or in the context of specific language skills, while studies on the learning styles of EFL students in private secondary-level boarding schools remain relatively limited. Second, several studies have focused more on the relationship between learning styles and specific skills or media use, rather than mapping the distribution of students' learning preferences within a specific school context. Third, recent discourse emphasizes that the concept of learning styles needs to be used carefully. Lyle et al. (2023) showed that experimental evidence does not strongly support the assumption that matching learning styles with instructional formats automatically optimizes learning outcomes. The meta-analysis by Clinton-Lisell and Litzinger (2024) also concluded that the benefits of matching instruction with learning styles are too small and too rare to serve as a basis for broad implementation, while multimodal learning is more worthy of consideration for addressing student diversity. Therefore, the research gap of this study lies in the need to map the learning style preferences of EFL students in private boarding schools more specifically and contextually, while also interpreting them critically as a pedagogical basis rather than as rigid instructional labels.

Based on this gap, this study is guided by three main questions. First, how are the learning styles of EFL students in a private boarding school distributed based on visual, auditory, and kinesthetic categories? Second, which learning style is the most dominant among EFL students in this context? Third, how can these learning preference tendencies be used as a basis for understanding the needs of English language learning in the classroom? These questions are designed not only to address the descriptive aspect of learning style types, but also to provide an interpretive basis for developing EFL learning strategies that are more appropriate to the boarding school context.

In line with these questions, this study aims to describe the learning style profiles of EFL students in a private boarding school based on the VAK model and to identify the most dominant learning style. This study does not begin from the assumption that matching teaching styles with learning styles in a single way will automatically improve learning outcomes. Instead, this study

positions the mapping of learning preferences as preliminary information for understanding student diversity and designing EFL instruction that is more multimodal, flexible, and participatory. Thus, this article is expected to provide an empirical contribution to the study of EFL learning in the context of private boarding schools and to offer practical guidance for teachers in developing learning strategies that are more responsive to students' characteristics.

Method

This study employed a quantitative approach with a descriptive survey method to map the learning style tendencies of EFL students based on the Visual, Auditory, and Kinesthetic (VAK) model. A quantitative approach is appropriate when a study aims to describe tendencies, distributions, and respondent characteristics based on numerical data obtained through a structured instrument (Creswell & Creswell, 2023). In this study, the descriptive survey method was used because the focus of the study was directed toward describing students' learning style profiles, rather than testing causal relationships or the effectiveness of a particular treatment.

The study was conducted at a private boarding school in Palangka Raya. The boarding school context was selected because its structured, intensive, and collective learning environment was considered to have the potential to shape distinctive learning preference patterns among EFL students. Therefore, the research site did not only function as the place for data collection but also as an interpretive context for the research findings, particularly in understanding the tendency toward the dominance of certain learning styles among students.

The subjects of this study were EFL students at the private boarding school. The research respondents consisted of 50 students from two classes who were selected using purposive sampling. This technique was used because the respondents were selected based on their suitability with the research objective, namely students who were in a private boarding school context and were learning English as a foreign language. Purposive sampling is appropriate when researchers need participants who are considered most relevant and informative to the research focus, although this technique has limitations in terms of generalization (Campbell et al., 2020). The total of 50 respondents served as the basis for all data analyses because this number corresponded to the complete data analyzed in the results section, including the calculation of frequency, percentage, mean, median, and mode.

Data were collected primarily through a closed-ended questionnaire, supported by interviews as supplementary data. The questionnaire was administered directly in printed form to the respondents, consisted of 30 items, and was completed after the researcher explained the purpose of the study and the confidentiality of the respondents' answers. A closed-ended questionnaire was selected because it enabled the researcher to obtain learning preference data uniformly from all respondents, allowing the results to be processed descriptively. In survey research, instrument quality needs to be considered through item clarity, indicator relevance, and validity and reliability testing so that the collected data truly reflect the construct being measured (Taherdoost, 2016). Interviews were used as supporting data to provide additional context for the learning style tendencies emerging from the quantitative data.

Data analysis was conducted descriptively by calculating the total score for each learning style category and presenting the results in the form of frequency, percentage, mean, median, and mode. Descriptive statistics were used to summarize and explain the main characteristics of the data without conducting inferential hypothesis testing (Field, 2024). Through this analysis, the researcher determined the distribution of visual, auditory, and kinesthetic learning styles and identified the most dominant learning style category among the respondents.

Regarding instrument quality, the source manuscript did not report validity and reliability testing in detail. Therefore, in this article, data validity is explained proportionally through the use of a uniform closed-ended questionnaire, the checking of response completeness, and the consistency of data processing across all respondents. However, the absence of statistical validity

and reliability reporting is still acknowledged as a methodological limitation because, in questionnaire-based research, validity and reliability are important aspects for assessing instrument quality (Taherdoost, 2016).

Operationally, the research procedure began with determining the research focus, namely identifying EFL students' learning styles and determining the most dominant learning style in the private boarding school context. After that, the researcher selected respondents from two classes using purposive sampling, developed a questionnaire based on VAK indicators, distributed the questionnaire directly to students, checked the completeness of the responses, calculated the scores for each category, and processed the data using descriptive statistics. The results of this analysis were then interpreted to determine the most dominant learning style category and to explain students' learning preference tendencies in the context of EFL learning.

Results

General Distribution of EFL Students' Learning Styles in a Private Boarding School

The results of the questionnaire analysis show that the learning styles of EFL students in the private boarding school were not evenly distributed across the three VAK categories. Of the total 50 students, 33 students, or 66%, were categorized as kinesthetic learners, 10 students, or 20%, were categorized as auditory learners, and 7 students, or 14%, were categorized as visual learners. This pattern confirms that students' learning tendencies were more directed toward activities involving movement, hands-on practice, and physical engagement than toward information processing through visual displays or verbal explanations alone. Descriptively, this distribution shows a strong concentration in one dominant learning type, namely kinesthetic, with a considerable difference compared with the other two categories. This finding is important because it shows that the learning characteristics of students in the private boarding school context tend to require active, participatory, and experience-based learning strategies. Thus, the findings of this study not only map students' learning preferences but also show that variations in learning styles appear in unequal proportions.

When examined further, the dominance of the kinesthetic learning style is the most prominent finding in this study because it accounts for more than half of the respondents. Meanwhile, the auditory learning style ranks second, representing one-fifth of the respondents, while the visual learning style occupies the lowest position. This composition indicates that although all three learning styles are present in the classroom, students' learning needs cannot be assumed to be homogeneous or evenly distributed across modalities. From the perspective of presenting research findings, this result can be viewed as an important contribution because it provides empirical insight into the learning tendencies of EFL students in a boarding school environment, a context that has rarely been examined specifically. However, this finding should still be interpreted proportionally because the study only describes the distribution of learning preferences based on a questionnaire instrument and does not yet assess their direct relationship with students' academic achievement or English language performance.

To clarify the distribution of EFL students' learning styles, the results of the questionnaire analysis are presented in Table 1. The table shows that, of the 50 respondents, the kinesthetic learning style was the most dominant category, with 33 students, or 66%. Meanwhile, the auditory learning style was found among 10 students, or 20%, and the visual learning style among 7 students, or 14%.

Table 1. Distribution of EFL Students' Learning Styles Based on the VAK Model

No.	Learning Style	Frequency	Percentage
1	Visual	7	14%
2	Auditory	10	20%
3	Kinesthetic	33	66%

Based on Table 1, it can be seen that the majority of students tended to have a kinesthetic learning style. This finding indicates that most students respond more easily to learning that involves direct activities, practice, movement, simulations, educational games, and participatory learning experiences. Meanwhile, the presence of students with auditory and visual learning styles also shows that EFL instruction should not be directed toward only one modality, but needs to be designed multimodally to accommodate students' diverse learning preferences.

Statistical Characteristics of Each Learning Style Category

In addition to showing the distribution of dominant categories, this study also presents the statistical profile of each learning style. For the visual learning style, the total score obtained from 50 respondents was 443, with a mean of 8.86, a mode of 8.00, and a median of 8.00. For the auditory learning style, the total score reached 440, with a mean of 8.71, a mode of 9.00, and a median of 9.00. Meanwhile, the kinesthetic learning style showed the highest accumulated score compared with the other two categories, which is consistent with the dominance of the number of students in this category. These data indicate that, not only in terms of respondent frequency but also in score tendency, the kinesthetic learning style emerged as the strongest learning pattern among the participants. Thus, the findings do not stop at classifying students into three categories but also demonstrate the consistency of this tendency through basic descriptive measures.

This statistical pattern shows that the visual and auditory learning styles had relatively close mean scores, but both remained below the kinesthetic tendency as the dominant learning style. The median and mode of the auditory learning style, both at 9.00, indicate that auditory preference was relatively stable among some students, although the number of students was not as large as the kinesthetic group. In contrast, the visual learning style showed a slightly higher mean than the auditory style, but the proportion of students dominantly categorized as visual learners remained the lowest. This indicates that score intensity in one category is not always identical to the dominance of the number of students in that category. This finding adds value because it shows that students' learning style profiles need to be interpreted through two layers of data at once, namely the distribution of dominant categories and the score tendencies within each modality. Nevertheless, because the source document does not present inferential testing, these results are more appropriately interpreted as a descriptive overview of students' learning patterns, rather than as a basis for broader generalization.

Learning Preference Tendencies and Their Implications for the EFL Learning Process

The next finding shows that each learning style has different forms of learning preference in the context of EFL instruction. Students with a visual learning style tend to understand material more easily through pictures, diagrams, written texts, concept maps, and the use of media such as LCD projectors, whiteboards, and visual presentations. Auditory learners prefer oral explanations, group discussions, listening to teacher explanations, and learning that involves sound or conversation. Kinesthetic learners, meanwhile, understand material more easily through hands-on practice, movement, object manipulation, simulations, and physical activities that actively involve them in the learning process. Based on the findings, the dominant kinesthetic tendency indicates that practical and direct learning experiences are more aligned with the needs of the majority of students in this research context. In other words, the data not only show which learning style is dominant, but also emphasize what forms of learning experience are most likely to support students' engagement in English language learning.

More analytically, these findings lead to the understanding that the EFL learning process in private boarding schools should not rely too heavily on a single mode of material delivery. The dominance of the kinesthetic learning style suggests the need for more active learning strategies, such as role play, educational games, simulations, projects, or task-based practice. At the same

time, the presence of auditory and visual learners indicates that classrooms still require varied approaches so that all students can access learning according to their preferences. The novelty of this study lies in its ability to capture the specific context of a private boarding school while also showing that this environment tends to include students with more active and practical learning preferences. However, it should be noted that the findings regarding the positive impact of learning styles on learning in the source document are presented mainly as descriptive interpretations and pedagogical implications, rather than as direct measurements of learning outcomes. Therefore, the findings of this study are most appropriately positioned as an empirical basis for designing learning strategies that are more responsive to EFL students' learning preferences.

Discussion

The findings show that the kinesthetic learning style was the most dominant preference among EFL students in the private boarding school, with 33 out of 50 students, or 66%, falling into this category. This dominance indicates that most students were more responsive to learning experiences involving movement, hands-on practice, simulations, language games, group work, and action-based activities. This finding is important because it shows that EFL instruction in the boarding school context cannot rely solely on verbal explanations or visual displays, but needs to provide greater space for participatory activities and direct experiences.

Analytically, the dominance of the kinesthetic learning style may not stand alone, but may be related to the characteristics of the boarding school environment. Students in boarding schools generally live within structured, collective routines and engage in many shared activities, both academic and non-academic. Martin et al. (2016), in their study of boarding schools, showed that students' motivation, engagement, and social climate can be understood through the layered structure of the boarding environment, from the individual, to the dormitory or house, and to the school. Thus, the kinesthetic tendency in this study may be interpreted as a possible result of the interaction between students' individual preferences and the boarding school learning culture, which emphasizes togetherness, order, practice, and scheduled activities. However, this interpretation remains contextual because this study did not directly examine the relationship between boarding school culture, daily physical activities, teachers' teaching methods, and the dominance of kinesthetic learning style.

This finding also emphasizes that students' learning preferences are contextual, not universal categories that apply equally across all educational levels and learning environments. Several recent studies have shown that learning preferences may differ according to learning contexts. Wandah et al. (2024), for example, found variations in learning styles in the context of listening skills, while other studies show that learning preferences cannot always be used as the sole basis for determining learning success. Therefore, the dominance of the kinesthetic learning style in this study should be understood as a profile of student tendencies in a particular private boarding school context, rather than as a general pattern for all EFL students.

Although the kinesthetic learning style appears dominant, this result should not be interpreted deterministically. The dominance of kinesthetic learning does not mean that all English language instruction should be directed only toward physical activities or hands-on practice. The meta-analysis by Clinton-Lisell and Litzinger (2024) shows that evidence regarding the benefits of matching learning styles with instructional formats remains limited and is not strong enough to serve as a basis for rigid, broad implementation. In addition, Lyle et al. (2023) even found that matching learning styles with certain instructional formats can be detrimental to learning under certain conditions. Thus, the findings of this study are more appropriately used as a basis for designing multimodal EFL instruction, rather than as justification for placing students into a single learning style label.

Pedagogically, the dominance of kinesthetic learning has important implications for EFL instruction in private boarding schools. Teachers can strengthen student engagement through practice-based learning, such as role play, simulations of everyday situations, vocabulary games, task-based learning, group projects, and activities that connect English with students' real experiences. However, these strategies still need to be combined with visual and auditory elements, such as pictures, concept maps, videos, dialogues, discussions, and listening exercises. A multimodal approach is more appropriate because English language learning involves text, sound, images, movement, interaction, and communicative practice simultaneously. Rahmanu and Molnár (2024), in their systematic review, showed that multimodality in English language learning can enrich learning experiences and support the mastery of language skills through the use of various learning modes.

Thus, the main contribution of this study is not to prove that the kinesthetic learning style is superior to visual or auditory styles, but to show that the learning preference profiles of EFL students in a private boarding school have distinctive tendencies and need to be understood contextually. The findings reinforce the need for flexible, active, and multimodal EFL learning designs. Future studies need to examine more directly whether the dominance of kinesthetic learning is related to boarding school culture, teachers' teaching methods, students' daily activities, or English learning outcomes. Further studies may also compare boarding and non-boarding school students to determine whether kinesthetic tendencies are a distinctive characteristic of the boarding school context or only appear in the particular school examined in this study.

Conclusion

This study shows that the learning styles of EFL students in the private boarding school were not evenly distributed. The kinesthetic learning style was the most dominant category, followed by auditory and visual styles. This finding indicates that most students were more responsive to active, practical, participatory learning experiences that involved direct physical engagement in English language learning. However, the dominance of the kinesthetic learning style should not be understood as a basis for applying one learning strategy rigidly, but rather as initial information for designing EFL instruction that is more multimodal, flexible, and responsive to variations in students' learning preferences.

The main contribution of this study is that it provides an empirical picture of EFL students' learning style profiles in the private boarding school context, which has still been examined relatively rarely in a specific manner. The findings emphasize that learning preferences are contextual and may be influenced by the educational environment, learning activity patterns, and students' characteristics. Practically, these findings can serve as a basis for teachers to combine visual, auditory, and kinesthetic strategies in English language learning, such as the use of visual media, discussions, listening exercises, role play, simulations, language games, and task-based projects.

Nevertheless, this study has limitations. The data were obtained from only one private boarding school with a limited number of respondents, so the findings cannot be widely generalized. In addition, this study relied on questionnaires and did not examine the direct relationship between learning preferences and learning outcomes, student engagement, or English language performance. Therefore, future research is recommended to involve more diverse school contexts, use a mixed-methods approach, and include classroom observations, interviews, and learning outcome data so that the relationship among learning preferences, teaching strategies, and the effectiveness of EFL instruction can be understood more comprehensively.

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Research Ethics Statement

This study was conducted in accordance with the ethical principles of educational research. Data were collected through a closed-ended questionnaire and supporting interviews for academic purposes related to the learning style profiles of EFL students in a private boarding school. The participants were informed about the purpose of the study, and their participation was voluntary. The confidentiality of participants' identities and responses was maintained throughout the research and reporting process. Since this study was limited to a descriptive survey and did not involve clinical intervention, experimental treatment, or procedures that posed physical or psychological risk, formal ethical approval was not required. Nevertheless, the research process was carried out responsibly by maintaining confidentiality, accuracy, voluntary participation, and respect for the dignity and rights of all participants involved.

Author Contributions

Siti Zainab: conceptualization, questionnaire preparation, data collection, descriptive data analysis, interpretation of findings, and writing of the original draft.

Sabarun: research methodology, supervision of data collection, review of quantitative analysis, manuscript editing, and corresponding author responsibilities.

Zaitun Qamariah: academic supervision, theoretical framework development, critical review of the findings and discussion, final revision, and approval of the final version.

All authors have read and approved the final version of the manuscript.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the research, authorship, and publication of this article.

Artificial Intelligence Use Statement

The authors declare that artificial intelligence, if used, was employed only as a technical support tool for language editing, grammar checking, translation assistance, and improving manuscript readability. All research processes, including research design, questionnaire administration, data analysis, interpretation of findings, arguments, and conclusions, remain the full responsibility of the authors.

Data Availability Statement

The data supporting the findings of this study consist of questionnaire responses, descriptive statistical summaries, supporting interview notes, and analytical interpretations related to the learning style profiles of EFL students in a private boarding school. The data are not publicly available to protect the confidentiality of the participating students and school. Additional

information regarding the data and analysis process may be obtained from the corresponding author upon reasonable request.

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