

RETHINKING VARK'S IMPACT ON ENGLISH PERFORMANCE IN MALAYSIAN SCHOOLS

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Abstract. English proficiency is a critical component of the Malaysian education system, yet many students continue to struggle with the subject, as evidenced by increasing failure rates in the Malaysia Certificate of Education (MCE) examination. This study provides a preliminary investigation into the relationship between learning styles and English performance among MCE preparatory students by employing the VARK (Visual, Auditory, Read/Write, Kinaesthetic) learning styles model. A quantitative survey involving 386 students was conducted using a validated VARK questionnaire alongside students' English examination results. Data analysis included descriptive statistics, independent t-tests, Pearson correlation, and multiple regression to identify dominant learning styles, gender-based differences, and the predictive strength of learning styles on English performance. Findings revealed that kinaesthetic and auditory styles were the most preferred learning styles, while the read/write style was the least common. However, results showed no significant correlation between preferred learning styles and English performance. Gender-based differences in performance were also not statistically significant. These findings challenge the widely held assumption that aligning instruction with learning styles significantly enhances academic achievement. Instead, the study highlights the importance of cognitive, motivational, and instructional factors in language learning. It recommends a more holistic and flexible approach to English education and suggests further research to explore other influential variables in second-language acquisition.

Keywords: *VARK learning styles, English performance, secondary education, language learning*

Introduction

English is a core subject in the Malaysian education system, yet students continue to struggle with achieving satisfactory results in the Malaysia Certificate of Education (MCE) examination. Recent statistics from the Malaysian Ministry of Education (MOE) indicate a worrying trend: failure rates in MCE English increased from 13.9% in 2021 to 14.3% in 2022, with 42% of students obtaining grades classified as unsatisfactory (KPM, 2023). Given the role of English in higher education and the workforce, understanding the factors influencing students' performance is crucial. The decline in English proficiency among Malaysian students has raised concerns among educators, policymakers, and researchers alike, necessitating evidence-based interventions to address the issue effectively. Language acquisition is a complex process influenced by various cognitive, social, and instructional factors. Over the years, researchers have explored multiple determinants of academic success, with a particular emphasis on student motivation, teacher effectiveness, socioeconomic background, and classroom environment (Roslan and Chen, 2023; Ellangovan and Jamaludin, 2022). While these factors have been well-documented, one area that remains relatively underexplored is the role of learning styles in academic achievement, particularly in second-language acquisition. The idea that students learn best when instructional methods align with their preferred learning styles has gained traction in educational research, leading to the

development of various learning style models, with VARK being one of the most prominent.

The VARK model, introduced by Fleming (1995), classifies learners into four primary categories: Visual, Auditory, Read/Write, and Kinaesthetic. Visual learners prefer graphical representations such as charts, diagrams, and mind maps, while auditory learners benefit from verbal instructions, discussions, and lectures. Read/Write learners excel when information is presented in written form, such as textbooks, notes, and written exercises. Kinaesthetic learners, on the other hand, learn best through hands-on experiences, physical activities, and practical demonstrations. Advocates of the VARK model argue that recognizing students' learning preferences and adapting teaching methods accordingly can enhance comprehension and retention, ultimately improving academic performance (Wahyudin and Wahyuni, 2022; Agustin et al., 2021). However, the effectiveness of learning styles in predicting academic success remains a topic of debate. Some researchers have challenged the validity of the VARK model, arguing that there is insufficient empirical evidence to support the claim that learning styles significantly impact academic performance (Bin Ismail and Haniff, 2020; Pashler et al., 2009). Critics contend that other factors, such as motivation, instructional quality, cognitive ability, and prior knowledge, may play a more substantial role in determining learning outcomes. Additionally, some studies suggest that adopting a multi-modal approach, where students engage with various learning styles rather than relying solely on one, may be more beneficial in fostering academic success (Coffield et al., 2004).

Despite the increasing discourse on the importance of learning styles, there remains a gap in research focusing specifically on their impact on English proficiency among Malaysian secondary school students. Given the complexity of second-language acquisition, it is essential to examine whether students' preferred learning styles influence their ability to master English effectively. While previous studies have explored the role of learning styles in science, mathematics, and medical education (Subagja and Rubini, 2023; Fahim et al., 2021), limited research has investigated their relationship with English performance in the Malaysian context. Furthermore, the Malaysian education system has undergone various reforms aimed at enhancing English proficiency, including the introduction of the Common European Framework of Reference for Languages (CEFR) and the Dual Language Programme (DLP). Despite these efforts, many students continue to struggle with English, particularly in writing and comprehension skills. This raises questions about whether traditional instructional approaches are aligned with students' learning preferences and whether alternative pedagogical strategies could yield better outcomes. In addition to learning styles, gender differences in language acquisition have also been widely discussed. Several studies have indicated that female students tend to outperform male students in language-related subjects due to higher levels of motivation, engagement, and study habits (Bai et al., 2022; Rianto, 2021). However, other researchers argue that gender alone is not a determining factor, and that cognitive and environmental influences play a more significant role (Hanham et al., 2021; Muñoz, 2020). Given the mixed findings in existing literature, further research is needed to explore whether gender-based differences exist in the context of English performance among MCE students.

Given the debate surrounding the effectiveness of learning styles, this study aims to contribute to this debate by providing a preliminary investigation into the relationship between VARK learning styles and English performance among MCE preparatory students in Malaysia. Specifically, this research seeks to: (1) Identify the most dominant

learning styles among MCE preparatory students, (2) Examine differences in learning styles based on academic performance and gender, and (3) Determine whether learning styles significantly predict English performance. By framing this research as a preliminary study, the findings will serve as a foundational step for more extensive investigations that incorporate additional cognitive and pedagogical variables. The findings will provide valuable insights for educators and policymakers in designing more effective instructional approaches to enhance English proficiency among Malaysian secondary students. Furthermore, the study's implications extend beyond Malaysia, offering a broader understanding of how learning preferences influence second-language acquisition in diverse educational settings.

Research framework

Figure 1 presents the conceptual framework, illustrating how VARK learning styles interact with students' academic performance in English. The model hypothesizes that learning styles may influence English proficiency, with gender and performance level as potential moderating variables. The research framework is based on the assumption that students with different learning styles may exhibit varying levels of English performance, and these differences may be further influenced by gender and academic performance categories. In Malaysian upper secondary schools, the grading system consists of 10 distinct grades: A+, A, A-, B+, B, C+, C, D, E, and G. For the purposes of this research, students' grades were categorized into three performance levels: high (A+, A, A-), moderate (B+, B, C+, C), and low (D, E, G). This classification allows for a structured analysis of performance trends across different learning styles and gender groups. The study aims to analyse the learning styles of MCE preparatory students to determine the most dominant style among them, including variations across different performance levels-high, moderate, and low. Additionally, it examines the dominant learning styles based on gender. The study also explores whether there are significant differences in English performance based on gender and academic performance. Furthermore, it investigates the correlation between learning styles and English performance and assesses whether learning styles can be considered predictors of English performance among MCE preparatory students.

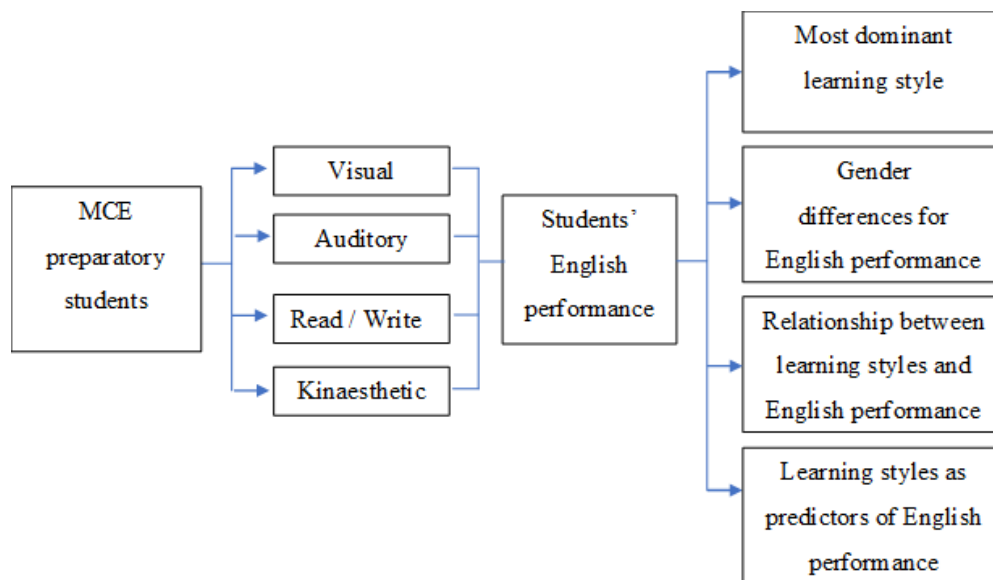


Figure 1. Research framework.

To ensure clarity in achieving these objectives, the following research questions were formulated. The research questions are: (1) RQ1: What is the most dominant learning style among MCE preparatory students? (2) RQ2: What is the most dominant learning style among high, moderate, and low-performing MCE preparatory students? (3) RQ3: What is the most dominant learning style among MCE preparatory students based on gender? (4) RQ4: To what extent does gender influence English performance among MCE preparatory students? (5) RQ5: What is the relationship between learning styles and English performance among MCE preparatory students? (6) RQ6: To what extent do VARK learning styles predict English performance among MCE preparatory students?

Literature review

The Malaysian Certificate of Education (MCE), equivalent to the O-level and IGCSE in Commonwealth countries, represents a vital public examination for Malaysian students, typically taken at the age of 17. While proficiency in compulsory subjects such as Malay Language and History is critical for obtaining the MCE certificate, failure rates for these subjects have consistently remained below 10% (Deraman and Rus, 2019). However, a notable concern arises with the English subject, where over 40% of students either fail or achieve only minimal passing grades (Chua, 2024). This trend is particularly troubling given the importance of English in Malaysia's educational and industrial sectors, despite its status as a second language (Ilyosovna, 2020). These statistics underscore the urgency for targeted interventions aimed at enhancing English proficiency. One potential approach to address this issue involves leveraging appropriate learning styles, such as those outlined in the VARK model, to optimize English acquisition (Anastasia, 2023; Faisal, 2019). The VARK learning style model serves as a widely recognized framework for examining the influence of learning preferences on academic performance across multiple disciplines, including science (Subagja and Rubini, 2023), medicine (Fahim et al., 2021), engineering (Liu et al., 2024), Islamic studies (Putung et al., 2024), and English learning (Bualat et al., 2023; Sari, 2023). Previous research on language acquisition suggests that different learning styles may influence various aspects of English proficiency. For instance, Porto et al. (2021) found that auditory learners tend to excel in listening and speaking skills, whereas visual learners benefit more from vocabulary retention and reading comprehension. However, studies by Rianto (2021) and Jiao et al. (2022) highlight that motivation and exposure play a greater role in second-language acquisition than learning styles alone.

Visual learners (V) comprehend information most effectively through visual aids such as diagrams, flowcharts, and mind maps, demonstrating strong recall abilities and a preference for creative and imaginative learning methods (Murphy et al., 2004). Auditory learners (A) excel when information is delivered verbally, benefiting from repeated exposure to spoken material and often preferring to read aloud to reinforce understanding (Subadi and Sulistyanto, 2021). Reading/writing learners (R) engage best with textual materials, favouring notetaking and the organization of information into written formats like tables and summaries (Drago and Wagner, 2004). Kinaesthetic learners (K), on the other hand, thrive through hands-on experiences and practical activities, relying on physical engagement to grasp concepts effectively (Supit et al.,

2023). Numerous studies have applied the VARK model to assess student performance at both school and university levels (Javed et al., 2023; Tonkaboni et al., 2023). For instance, Zain et al. (2019) reported that visual and kinaesthetic learning styles significantly impact academic outcomes, a finding supported by Paturusi (2022), who observed that high-achieving English learners predominantly favoured visual learning styles. While many studies affirm a positive correlation between learning styles and academic performance, others present contradictory findings. Research by Dani (2023), Taheri et al. (2021) as well as Mozaffari et al. (2020), found no significant association between learning styles and academic success. Similarly, Hanawi et al. (2022) identified a notable influence of the auditory learning style on student performance, aligning with the findings of Damasco et al. (2024).

Despite its widespread use, the VARK model has faced criticism regarding its practical application. Pashler et al. (2009) argue that there is little empirical evidence to support the idea that adapting teaching methods to students' preferred learning styles significantly improves learning outcomes. Instead, they suggest that instructional strategies based on cognitive science principles, such as retrieval practice and spaced repetition, may be more effective. Moreover, Bin Ismail et al. (2020) argued that the model's perceived ineffectiveness stems from insufficient research depth and challenges in real-world implementation, often compounded by researchers' subjective judgments. Furthermore, language learning presents inherent complexities due to the interplay of external and internal factors (Mirhadizadeh, 2016). The inconsistency in research outcomes underscores the necessity for further exploration into the relationship between learning styles and academic performance. By investigating the relationship between learning styles and English proficiency, this study aims to inform secondary school educators and policymakers on the potential benefits and limitations of incorporating learning styles into curriculum design. If certain learning styles are found to have a stronger impact on English achievement, teachers could adopt differentiated instructional strategies to accommodate diverse learning preferences, ultimately leading to improved student engagement and performance. Furthermore, this research contributes to the broader discourse on effective learning strategies, particularly within the Malaysian secondary education system.

Materials and Methods

Research design

This study adopts a quantitative approach, which is suitable for handling large sample sizes and ensuring objectivity in data interpretation (Creswell and Creswell, 2017). A survey research design was selected as it allows for statistical generalization to a larger population and provides a structured and systematic method of data collection (Kelley et al., 2003). Given that this research serves as a preliminary investigation, the survey method was selected to provide initial empirical insights into the relationship between VARK learning styles and English performance among secondary school students. Unlike qualitative methods, which explore in-depth perspectives, the quantitative approach enables the identification of trends and patterns across a broad dataset, making it particularly useful for examining the relationship between learning styles and academic performance. Furthermore, survey designs facilitate swift data collection from large groups, increasing the efficiency and generalizability of findings (Vogt et al., 2012).

Sample and instrument

The target population comprised upper secondary students in Malaysia, particularly those preparing for the Malaysia Certificate of Education (MCE) examination. A stratified random sampling technique was employed to ensure representation across key subgroups, particularly gender and performance levels, enhancing the study's validity and reliability (Levy and Lemeshow, 2013). This method was chosen to control for potential biases and to achieve a balanced representation of students with diverse learning styles. A total of 386 Form Four and Form Five students from two secondary schools in Peninsular Malaysia participated in the study. The sample size was determined based on Krejcie and Morgan (1970) sample size determination table, which recommends a minimum of 384 participants for populations exceeding 100,000 students. The selection of schools was based on demographic diversity, school performance bands, and accessibility, ensuring that the sample reflects the broader secondary school population in Malaysia.

The primary instrument for data collection was a VARK learning style questionnaire, adapted from VARK version 8.01, which is publicly available on the VARK website. This instrument is widely used in educational research to categorize students into Visual, Auditory, Read/Write, or Kinesthetic learning styles (Fleming and Baume, 2006). The questionnaire consists of 16 multiple-choice questions, where participants could select more than one option per question to capture the complexity of their learning preferences. Additionally, the questionnaire included demographic questions regarding gender and latest English examination results, allowing for subgroup analysis. The VARK questionnaire has been validated in multiple studies, with Cronbach's alpha reliability scores ranging from 0.70 to 0.85, demonstrating its consistency and reliability in measuring learning styles (Leite et al., 2010).

Data collection and analysis

Data were collected through self-administered questionnaires distributed to the students. The structured format of the questionnaire ensured clarity and minimized the influence of the researcher during the response process (Jenkins and Dillman, 1995). This method allowed for efficient data collection while maintaining the integrity and confidentiality of student information. Participation in the study was voluntary, and students were informed of their rights including the ability to withdraw at any time without penalty. Data were analysed using both descriptive and inferential statistical methods. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to summarize the data and identify dominant learning styles among students. For inferential analysis, the following statistical tests were conducted: (1) Independent t-tests: To examine gender differences in English performance. (2) Pearson correlation: To assess the relationship between learning styles and English performance. (3) Multiple regression analysis: To determine the predictive strength of learning styles on English performance. Statistical analyses were performed using SPSS version 26, a widely recognized software for quantitative research. SPSS was chosen for its robust statistical capabilities and ability to handle complex datasets efficiently (Field, 2009). A p-value threshold of <0.05 was applied to determine statistical significance, indicating a less than 5% probability that results occurred by chance (Tabachnick and Fidell, 2007). This standard ensures that observed relationships between variables are

meaningful within a 95% confidence level. Approval was obtained from school principals prior to data collection. All personal information, including names and identification numbers, was anonymized to ensure confidentiality. Data were used solely for research purposes and were not disclosed publicly.

Results and Discussion

Table 1 presents the number and percentage of respondents involved in this study, comprising 386 students from two secondary schools in Malaysia. The distribution of respondents by gender indicates a relatively balanced number of male and female students, totalling 252 and 134, respectively.

Table 1. Demographic profile.

Gender	Frequency (N)	Percentage (%)	Cumulative percentage
Male	252	65	65
Female	134	35	100
Total	386	100.0	

Dominant learning styles among MCE preparatory studies

Referring to RQ1, most dominant learning style among MCE preparatory students was examined. Table 2 shows the findings on the learning styles preference practiced by MCE preparatory students. Analysis of learning style preferences among 386 MCE preparatory students revealed that the kinaesthetic learning style was the most preferred (37.82%), followed by auditory (35.75%), visual (15.28%), and read/write (11.14%). Subsequently, the mean value was calculated to determine the average score. The total frequency of 386 was divided by four, yielding a mean of 96.5. Following this, the standard deviation was computed. The standard deviation for this dataset was determined to be 45.94.

Table 2. Learning styles preference.

Learning styles preference	Frequency (N)	Percentage (%)
Visual	59	15.28
Auditory	138	35.75
Read/write	43	11.14
Kinaesthetic	146	37.83
Total	386	100.00

Learning styles and English performance levels

Referring to RQ2, within each learning styles preference, students were divided into three classes, namely those with high (A+, A, A-), moderate (C+, C, B+, B) and low (D and below). Table 3 shows the cross-tabulation of preferred learning styles according to high, moderate and low achievers in English. Table 3 illustrates that overall students performed well in English, with nearly half achieving moderate results (49.74%), followed closely by those with high performance (45.60%). Only a small fraction of students (4.66%) fell into the low performance category. To examine the relationship between learning styles and academic performance, students were categorized into high, moderate, and low achievers. The results indicate that: (1) High achievers predominantly preferred the visual learning style (49.15%), followed by read/write

(46.51%) and kinaesthetic (45.21%). Auditory learning was the least preferred among this group (44.20%). (2) Moderate achievers favoured the auditory learning style (52.17%), with kinaesthetic (50.68%) and visual (45.76%) being common preferences. The read/write style was the least adopted (44.19%). (3) Low achievers showed a higher preference for the read/write learning style (9.30%), followed by visual (5.08%) and kinaesthetic (4.11%), with auditory being the least favoured (3.62%).

Table 3. Cross-tabulation of preferred learning styles by high, moderate and low achievers in English.

Learning styles preference	High	Moderate	Low	Total
Visual	29 (49.15%)	27 (45.76%)	3 (5.08%)	59
Auditory	61 (44.20%)	72 (52.17%)	5 (3.62%)	138
Read/Write	20 (46.51%)	19 (44.19%)	4 (9.30%)	43
Kinaesthetic	66 (45.21%)	74 (50.68%)	6 (4.11%)	146
Total	176 (45.60%)	192 (49.74%)	18 (4.66%)	386

Gender differences in learning styles preferences

Referring to RQ3, to gain deeper insights into students' learning style preferences based on gender, male and female students were categorized according to their respective learning style preferences. *Table 4* presents the distribution of students' learning style preferences by gender. Based on *Table 4*, gender-based analysis revealed notable differences in learning preferences: (1) Male students exhibited a higher preference for kinaesthetic learning (41.67%), followed by auditory (36.11%), visual (11.90%), and read/write (10.32%). (2) Female students favoured auditory learning (35.07%), followed by kinaesthetic (30.60%), visual (21.64%), and read/write (12.69%).

Table 4. Students' learning styles according to gender.

Gender	Visual	Auditory	Read/write	Kinaesthetic	Total
Male	30 (11.90%)	91 (36.11%)	26 (10.32%)	105 (41.67%)	252
Female	29 (21.64%)	47 (35.07%)	17 (12.69%)	41 (30.60%)	134
Total	59	138	43	146	386

Gender and English performance

Referring to RQ4, the study examined the relationship between gender and English performance among SPM preparatory students. *Table 5* presents the distribution of students' English performance based on gender. Based on *Table 5*, overall, 111 male students achieved high performance (44.05%), 127 achieved moderate performance (50.40%), and 14 achieved low performance (5.56%). For female students, 65 students achieved high performance (48.51%), 65 achieved moderate performance (48.51%), and four achieved low performance (2.99%). In examining English proficiency across genders, results indicated that female students had a slightly higher mean score (67.47) compared to male students (65.97). This shows that female students achieved better performance than male students for English. An independent samples t-test was conducted to determine whether there were significant differences in English performance among SPM preparatory students based on gender. *Table 6* presents the t-test analysis results for gender-based differences in English performance. Based on the t-test analysis, the results indicated that the significance level for differences in English performance based on gender was 0.199, which exceeds the threshold of 0.05 ($p >$

0.05). Consequently, the null hypothesis (Ho-1) failed to be rejected, indicating that there was no significant difference in English performance between male and female students.

Table 5. *Students' English performance by gender.*

Gender	Low	Moderate	High	Total
Male	14 (5.56%)	127 (50.40%)	111 (44.05%)	252
Female	4 (2.99%)	65 (48.51%)	65 (48.51%)	134
Total	18 (4.66%)	192 (49.74%)	176 (45.60%)	386

Table 6. *T-Test analysis of differences in English performance based on gender.*

Gender	N	Min	Standard deviation	t	df	Sig. level
Male	252	65.97	11.38	-1.288	384.00	0.199
Female	134	67.47	9.96			

Correlation between learning styles and English performance

Referring to RQ5, the relationship between learning styles and English performance among MCE preparatory students was examined. A Pearson correlation test was conducted to determine the strength and direction of this relationship. *Table 7* presents the results of the correlation analysis, highlighting the association between learning styles and students' English performance. The relationship between these variables was assessed using the Pearson correlation test. According to Cohen (1988), the strength of the correlation can be categorized as follows: small ($r=\pm 0.10$ to ± 0.29), medium ($r=\pm 0.30$ to ± 0.49), and large ($r=\pm 0.50$ to ± 1.00). The positive or negative sign indicates the direction of the relationship but does not affect its strength. Based on the results presented in *Table 7*, the correlation between learning style and students' performance in English was found to be negative and very weak, $r=-0.04$, $p=0.434$ ($p>0.05$). As a result, the null hypothesis (Ho-2) failed to be rejected, indicating that there is no significant relationship between learning style and students' performance in English.

Table 7. *Correlation test between learning styles and students' English performance.*

Category	Learning styles preference	Score
Students' learning style preference	Pearson correlation	1
	Sig. (2-tailed)	.434
	N	386
Students' English performance	Pearson correlation	-.040
	Sig. (2-tailed)	.434
	N	386

Predictive power of learning styles on English performance

Referring to RQ6, the study aimed to determine whether learning styles could serve as predictors of English performance among SPM preparatory students. The analysis utilized the coefficient of determination (R^2) to assess the predictive power of learning style preferences on students' English performance. *Table 8* presents the results of this analysis, highlighting the extent to which learning styles explain variations in English performance. Based on *Table 8*, the R^2 value of 0.002 indicates that only 0.2% of the variance in the dependent variable (students' performance in English) can be attributed to the four independent variables-visual, auditory, reading/writing, and kinaesthetic learning styles. This suggests that learning styles alone do not serve as reliable predictors of academic achievement in English. Much of the variance in English performance is likely explained by factors other than learning styles.

Table 8. Analysis of the R² coefficient of determination value for learning styles with student.

Model	R	R square	Adjusted R square	Std. Error of the estimate
1	.040 ^a	.002	-.001	10.921

Note: a. Predictors: (Constant), Learning styles preference.

This study explored the relationship between VARK learning styles and English performance among Malaysian secondary students preparing for the Malaysia Certificate of Education (MCE). Contrary to traditional assumptions that tailoring instruction to preferred learning styles enhances academic achievement, our findings reveal no significant correlation between learning styles and English performance. Instead, the results underscore the greater importance of cognitive, motivational, and instructional factors in language acquisition.

Learning styles and English performance: A critical re-evaluation

The study found that kinaesthetic and auditory learning styles were the most preferred, while read/write was the least favoured. However, high achievers predominantly preferred visual learning, contradicting the expectation that kinaesthetic learners would perform best. This supports the assertion by Pashler et al. (2009) that learning styles function more as personal preferences rather than reliable predictors of academic success. One possible explanation is that learning styles do not reflect actual cognitive processing needs but rather personal preferences that may not be the most effective for deep learning. According to Cognitive Load Theory (Sweller, 1988), learning is most effective when instructional materials are structured to optimize cognitive processing rather than simply matching a learner's preferred style. For example, high-performing students may naturally gravitate toward visual learning methods such as diagrams, structured notes, and concept maps, which facilitate better encoding and retrieval of complex linguistic structures. Moreover, the classroom environment may not always accommodate certain learning styles. For instance, kinaesthetic learners may struggle in traditional school settings where lessons are primarily text-based or teacher-centered. This highlights the limitations of rigid learning style classifications and supports previous research advocating for multi-modal teaching approaches that integrate visual, auditory, and kinaesthetic elements rather than categorizing students into a single learning preference (Coffield et al., 2004).

Gender and English performance : A diminishing gap

The study also examined gender differences in English performance, revealing that female students had slightly higher mean scores than male students, but the difference was not statistically significant. These findings contrast with previous research suggesting that females generally outperform males in language acquisition due to higher levels of motivation, engagement, and study habits (Bai et al., 2022; Rianto, 2021). Instead, they align with studies suggesting that self-regulated learning strategies, instructional quality, and language exposure play a more decisive role than gender alone (Howard et al., 2021; Muñoz, 2020). This diminishing gender gap may be attributed to increased access to learning resources and digital platforms, which provide more equitable learning opportunities for both male and female students. Additionally, the Malaysian education system's standardized curriculum and national-level English

proficiency programs may have contributed to narrowing the gender-based differences in English achievement.

The need for a more comprehensive framework

The lack of correlation between learning styles and English performance supports growing scepticism about the effectiveness of the VARK model as a predictor of academic achievement. Regression analysis revealed that learning styles accounted for only 0.2% of the variance in English scores, indicating that factors beyond learning styles, such as motivation, instructional approaches, and language exposure; are more influential. Research in Second Language Acquisition (SLA) reinforce this argument, highlighting that language learning success depends more on exposure, practice, and metacognitive strategies than on learning preferences (Getie, 2020; Gardner and Lambert, 1959). For example, Tai and Zhao (2024) found that students with high motivation and frequent exposure to English through reading, media, and social interaction consistently performed better, regardless of their preferred learning modality. These findings challenge educators to rethink the role of learning styles in instructional design. Rather than focusing on categorizing students into specific learning styles, a more effective approach would be to emphasize evidence-based teaching strategies such as: (1) Active Learning Strategies-Encouraging problem-solving, debates, and collaborative projects to foster critical thinking and engagement. (2) Scaffolded Instruction-Providing structured learning experiences that gradually transition from teacher-led guidance to independent mastery. (3) Multi-Modal Teaching Approaches-Integrating visual, auditory, and kinaesthetic elements to accommodate diverse cognitive needs rather than rigid learning style classifications.

Implications for future research

As a preliminary study, this research provides an initial understanding of how learning styles relate to English performance, but it also highlights the need for further exploration. Future studies should: (1) Expand the research scope-Incorporate qualitative methods such as classroom observations and interviews to gain deeper insights into how students process and retain language information. (2) Examine additional factors-Investigate the role of motivation, digital learning environments, and self-regulated learning strategies, which may have a greater impact on English proficiency. (3) Employ longitudinal research designs-Track students' language development over time to provide a clearer picture of how different learning strategies influence long-term academic success. By shifting the focus from learning styles as rigid categories to a more dynamic, evidence-based approach, educators can develop more effective pedagogical strategies to improve English proficiency. These insights are not only relevant within the Malaysian educational context but also offer broader implications for second-language learning in diverse educational settings.

Conclusion

This study provides a preliminary investigation into the relationship between VARK learning styles and English performance among Malaysian secondary students. The findings challenge the conventional belief that tailoring instruction to students' preferred learning styles enhances academic achievement. Instead, the results indicate

no significant correlation between learning styles and English performance, suggesting that cognitive strategies, motivation, instructional quality, and language exposure play a more substantial role in second-language acquisition. Although kinaesthetic and auditory learning styles were the most preferred, high achievers exhibited a stronger preference for visual learning, which may indicate that effective learning strategies extend beyond mere preferences. Additionally, while female students had slightly higher English scores than male students, the difference was not statistically significant, suggesting that gender alone is not a primary determinant of language proficiency. These findings reinforce growing scepticism about the predictive power of learning styles in education. Regression analysis revealed that learning styles accounted for only 0.2% of the variance in English scores, highlighting the need to shift away from rigid learning style classifications and toward evidence-based instructional practices. In conclusion, rather than adhering to rigid learning styles, educators should adopt a holistic, multi-modal instructional approach that accommodates diverse cognitive needs while emphasizing active learning, scaffolded instruction, and student engagement. Future research should continue exploring how motivation, technology, and exposure to English in real-world contexts contribute to language learning success.

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Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research study.

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