Thi Qar Arts Journal
Vol 8 No 47 Sep. 2024

English Teaching Centered on the Application of Learning Styles Perceived in Academic Contexts

Dr. Nadhim Madhloom Hashim

The General Directorate of Education in Thi-Qar, Ministry of Education, Iraq

nadhim.ali@utq.edu.iq

https://orcid.org/0000-0002-8891-7467

Abstract

This study explores the influence of learning styles and their impact on the student's achievement in the target language. The primary purpose of teaching is to enable students to adopt various learning styles to improve their language skills. Therefore, teachers can use VARK to accommodate their students' diverse learning preferences when teaching English activities in a formal setting. The study has shown the existence of correlation coefficients between English proficiency and learning style preferences, precisely the preparatory students' visual and auditory learning styles, are strongly positive. The Pearson Chi-Square value for the Visual model is $\chi 2$ =193.37, p<0.05, and the Aural model is $\chi 2$=182.70, p<0.05. Besides, it illustrates that out of the total 64 participants, the single preference model accounted for the most significant rating score (M=3.22, SD=.863), comprising 39.1% of the sample. In contrast, the results suggest no statistically significant distinction between male and female participants concerning the reference of gender preference in VARK, p <0.05. Teachers should possess an in-depth understanding of the preferred learning styles of their students to develop teaching resources that facilitate rapid and effective student learning. Furthermore, it seems that both students and teachers readily embrace the notion of learning styles, which enhances the actual use of learning style measurement in classroom settings to identify students' areas of particular difficulty in the learning process.

Keywords: Learning Styles, Student's Preferences, Perceptual Learning, and Gender

Thi Qar Arts Journal
Vol 8 No 47 Sep. 2024

تدريس اللغة الإنكليزية المتمحور حول تطبيق أساليب التعلم الادراكية في السياقات الأكاديمية

م.د ناظم مظلوم هاشم علي
المديرية العامة لتربية ذي قار، وزارة التربية، العراق
E-mail: nadhim.ali@utq.edu.iq
ORCID: https://orcid.org/0000-0002-8891-7467

الخلاصة

تستكشف هذه الدراسة تأثير أساليب التعلم (VARK) وأثرها على تحصيل الطالب في لغة الهدف. الغرض الأساسي من التدريس هو تمكين الطلاب من اعتماد أساليب التعلم المختلفة لتحسين مهاراتهم اللغوية. لذلك، يمكن للمعلمين استخدام VARK لاستيعاب تفضيلات التعلم المتنوعة لطلابهم عند تدريس أنشطة اللغة الإنكليزية في بيئة رسمية. وأظهرت الدراسة وجود معاملات ارتباط بين إتقان اللغة الإنكليزية وتفضيلات أسلوب التعلم، وتحديداً أساليب التعلم البصري والسمعي لطلاب المرحلة الإعدادية، إيجابية للغاية. إحصائية اختبار مربع كاي للنموذج المرئي هي $\chi2= 193.37$, $p <0.05$ ، والنموذج السمعي هو $\chi2= 182.70$, $p <0.05$ بالإضافة إلى ذلك، فإنه يوضح أنه من بين إجمالي ٦٤ مشاركًا، استحوذ نموذج التفضيل الفردي على درجة التقييم الأكثر أهمية (M=3.22، SD=.863)، والذي يضم 39.1% من العينة. في المقابل، تشير النتائج إلى عدم وجود تمييز ذو دلالة إحصائية بين المشاركين من الذكور والإناث فيما يتعلق بمرجع تفضيل الجنس في VARK، $p<0.05$. يجب أن يمتلك المعلمون فهمًا متعمقًا لأساليب التعلم المفضلة لطلابهم لتطوير موارد التدريس التي تسهل التعلم السريع والفعال للطلاب. علاوة على ذلك، يبدو أن كلا من الطلاب والمعلمين يتبنون بسهولة فكرة أساليب التعلم، مما يعزز الاستخدام الفعلي لقياس أسلوب التعلم في إعدادات الفصل الدراسي لتحديد مجالات الطلاب التي تواجه صعوبة محددة في عملية التعلم.

الكلمات المفتاحية: أساليب التعلم، تفضيلات الطالب، التعلم الإدراكي، الجنس

1. Introduction

A student's learning achievement may be influenced by ways to learn, consisting of several learning styles (VARK), including cognitive, emotional, and physiological characteristics that the student employs in reaction to the learning environment. Nevertheless, several exist to classify VARK; one widely accepted handle entails ascertaining the sensory modality in VARK

learning. In the current study, VARK and its impact on the student's achievement were conducted to identify how students learn best in the target language. In education, VARK is one of the most effective learning tools for both teachers and students in the learning and teaching processes. In this regard, these vital styles are essential for the teacher to transmit the teaching information to the student's mind effectively. Pashler et al. (2008) described that learning styles refer to the view that different individuals learn information differently. Besides, the well-known models of learning styles are visual learning, auditory, tactical learning, and Kinesthetic learning, respectively. It is generally accepted that how individuals choose a learning situation impacts performance and achievement of learning outcomes (Cassidy, 2004). Therefore, VARK models are implemented to improve students' academic performance, given that they learn most effectively when classroom strategies and extracurricular engagements correspond to their learning styles, strengths, and preferences that develop within the educational setting.

In the same vein, Dörnyei and Skehan (2003) highlight that there is also the attraction that style may concern attributes, which do not have such a fixed status as aptitudes in the learning process. Fleming and Baume (2006) confirmed that the primary function of VARK is to encourage students to think about how they learn, which is a helpful step toward understanding and improving learning. Several studies reviewed the literature from the past years found different VARK models individuals prefer to learn effectively. For instance, Fridley and Fridley (2010) note that learning styles essentially involve classifying individuals into a restricted number of groups and applying differential treatment predicated on those simplified classifications. Consequently, Fleming and Mills (1992) provided four VARK models: visual, aural, read/write, and kinesthetic. In short, any student has different VARK models than other students to learn new information. They are interested in employing the most preferred learning styles to solve problems and develop language skills. As a result, it requires that teachers should encourage their students to use more favourite and feasible VARK in the learning tasks eventually.

1.1 Problem of the Study

Learning styles are crucial to the primary drivers of easy learning. They guide the creation of an official school setting to improve student performance. Every student learns differently psychologically; thus, an adequate teaching method must meet the student's desire to learn. This study uses the Fleming model's three broad learning style categories—VARK (visual, aural, read/write, and kinesthetic). VARK (visual, aural, read/write, and kinesthetic) is meant to start an ongoing dialogue between teachers and students about the preferred learning. It can also boost student advancement in the target language and link the gap between teacher and learner roles in English tasks. Furthermore, teachers must understand students' learning styles to help them transfer materials. Therefore, they can choose a learning style that suits their needs when learning English at preparatory schools.

Despite the VARK significance of the learning process, most teachers neglect to use the proper teaching method for each student. Some students avoid classroom activities because teachers don't communicate the material and their proficiency level. These students don't consider their learning style, so they cannot optimize their active learning. In this context, it's important to identify students' barriers to learning English and understand how they learn best.

1.2 Objectives of the Study

The specific objectives of this study can be identified as the following:

1. To find out the advantages of learning styles the students employ to learn.
2. To determine the relationship between English proficiency and students' learning styles preferred in learning English as a foreign language
3. To obtain a correlation between gender and preferable learning styles for English language performance.

1.3 Research Questions

There are three research questions in this study. The proposed study attempts to offer appropriate responses to the current questions accordingly:

1. What are the preferred learning styles of preparatory students in the English language enrollment setting?
2. Is there a correlation between learning style preferences and English proficiency employed by preparatory students?
3. Does a correlation exist between gender and preferable learning styles for English language Performance?

1.4 Null Hypotheses

There are three null zero hypotheses to test the questions of the study, as in the following:

$H_{(0)1}$: There are no preferred learning styles of preparatory students in the English language enrollment setting.

$H_{(0)2}$: There is no correlation between learning style preferences and English proficiency employed by preparatory students.

$H_{(0)3}$: There is no correlation between gender and preferable learning styles for English language Performance.

2. Literature Review

Learning styles are fundamental tools for effective learning and understanding ; each student learns differently. The term "learning style" or "VARK" refers to the view that different individuals learn information in different ways that they like. Many studies have been done worldwide to find out how individuals learn best. Over the past three decades, various learning styles have been identified utilizing the VARK questionnaire Fleming and Mills (2001), one of the most common ones used in learning (Peyman et al., 2014). Various studies in education such as Kolb (1974, 1984), Carbo (1983), Dunn (1984), Reid (1995), Bollinger (2003), Sharp

(2004), Hawk and Shah (2007)have identified several factors that account for some of the differences in how students learn new information in the target language. For this reason, VARK is the most effective technique for improving learning skills. The single most marked conception is that VARK is a good way for students to remember or produce target information and improve academic achievement (Panahi et al., 2011). Moreover, these learning styles refer to the unusual ways of personality indexes or psychological types in which a student understands and retains the information in learning tasks (Vita, 2001)

In a practical sense, some students attempt to understand the process by taking nonverbal content from class assignments, while others adapt the physical tasks to what they know. While different techniques exist for categorizing VARK models, one commonly used involves determining which sensory modality or modalities an individual favors employing during internalizing information throughout the learning cycle (Dobson, 2010). Over the past century, there has been a dramatic increase in the investigation related to VARK in education. Researchers have varied their evaluation of the notions of preferred learning styles. The primary goal of this study is to contribute an exhaustive depiction of VARK used in preparatory school settings and illustrative scenarios that highlight the qualities of the preeminent students. The theoretical framework also centers on identifying effective learning habits to understand why some students fail to attain exceptional results at the school level. Additionally, it provides a strong rationale for the notable correlation between a student's preferences and their achievements in the English language. Hence, VARK serves as a practical instrument for assessing the validity of specific learning style practices, shedding light on the efficacy of one style while disregarding others that fail to produce comparable results.

The study culminates by proposing teaching strategies for utilizing VARK to facilitate effective instruction and comprehension of academic materials within the classroom setting. As a result, the successful use of VARK sufficiently encourages students to utilize personality assessments and VARK inventories to distinguish their range of involvement, which may result in enhanced academic performance and heightened desire for classroom endeavors.

Additionally, students can recognize their learning-related weaknesses and strengths, direct themselves toward a conducive learning environment, and acquire knowledge effortlessly and permanently (Dağ and Geçer, 2009).

Kolb (1984) identified one of the most significant models of learning styles in language learning. It highlights the language acquisition process through specific activities that can be used to learn flexibly in the target language. According to Kolb's theory, concepts of VARK development have provided new experiences based on sensory devices. Kolb and Fry (1974) listed four fundamental issues: (1) having a concrete experience followed by (2) observation of and reflection on that experience which leads to (3) the formation of abstract concepts (analysis) and generalisations (conclusions) which are then (4) used to test a hypothesis in future situations, resulting in new experiences. Honey and Mumford (2000) identified VARK as a set of techniques to access learning activities, behaviours, and trends that determine the preferred learning method. In the same vein, Oxford and Celce-Murcia (2001) highlighted the vital role of learning styles that students use to acquire a new language or learn any other subject. It has contributed to selecting the best way of receiving the acquired information from the external environment where students learn.

Similarly, Fleming and Bonwell (2001) reported the effect of learning styles on students' achievement and self-efficiency. It symbolizes how the student receives information and experiences, how to transfer information, and then puts it in a memory device. Active students use learning styles more frequently than unsuccessful students to learn effectively and deeply. To put instructional materials into effect that facilitate the efficient growth of students' knowledge, specific mental modes and attitudes appear to impact how and what students learn. According to Ormrod et al. (2023), some students emerge to retain information more effectively when it is provided in a variety of styles. Students have preferred learning styles to meet their learning needs. Dunn and Griggs (2000) reported that the theory of learning styles recognise those students' cognitive, affective, physiological, and sociological patterns that determine their academic outcomes. Socially, each student has their own thinking and

environmental preferences in learning. This advantage allows students to adopt the preferred style to solve problems. A student can retrieve information and experience in the way that they consider it is individually preferred to learn in the target language. The Fleming VARK consists of four basic learning styles: (a) Visual learning style as a letter representing this style is V. (b) Auditory learning style, and the A is the symbol for this style. (c) Reading writing/learning style and R is the relevant symbols in this learning style. Finally, (d) the Kinesthetic learning style, and K is the symbol of this style.

According to Fleming and Bonwell (2001), learning styles are an individual's preferred way of gathering, organising, and thinking about information. It is considered the behaviours related to the psychological, cognitive, and affective domains of interaction with learning environments. Learning styles have shown that learning can be enhanced through consideration of the personal characteristics related to each student. Conversely, according to Fridley and Fridley (2010), VAK instruments have little to no predictive value. Despite this, the VARK hypothesis states that student learning should improve when instruction is adjusted to their specific learning preferences. However, learning modalities influence students' academic learning, according to Carjuzaa and Kellough (2013), and it is possible to demonstrate that accommodating these modalities in the classroom increases academic achievement.

It is valuable to note that the goal of learning styles in learning is to reap the full educational benefits from the concept of individual differences, and it will be necessary to respect a broader range of characteristics that make students unique. These VARK models play a vital role in foreign language learning. In other words, those styles are preferred ways students adapt to receive or retrieve information during learning. Using relevant VARK models helps students improve their target language performance. Finally, the development of theory gives a summary related to the use of VARK in learning. It provides a well-accepted justification for the critical role of VARK in students' skills in the target language. Therefore, students have different preferences when choosing VARK models that are aligned with how they learn, especially in the formal setting.

3. Methodology

The current methodology includes the primary criteria to achieve the goal as follows:

3.1 Research Design

The study employed a descriptive research design, utilizing the VARK questionnaire. The current systematic research was used to gain insight into the VARK phenomenon outlined by Fleming's theory, which corresponds to the learning style employed by preparatory students when learning English. It serves as a guide to more comprehensive investigations of the core phenomenon of the study. Furthermore, this methodological technique was employed to gain insight into the English learning backgrounds of the participants, including their motivations, actions, behavior, and perceptions concerning their formal education.

3.2 Instruments

Participants' preferences for learning styles in effective learning were collected using the VARK questionnaire as the primary instrument. VARK (Version 8.01). The assessment comprises sixteen multiple-choice questions designed to ascertain participants' preferred learning styles in the learning cycle. In 1992, Neil Fleming developed the VARK questionnaire model, dividing individuals into four categories:

a) Visual learners (V): Acquire knowledge most effectively through images, selecting a word that matches the relevant teaching materials.
b) Auditory learners (A): When such learners are engaged in auditory materials such as lectures, speeches, music, and language use, the easiest way to learn about auditory activities is through speaking and listening.
c) Read/write learners (R) acquire the most significant knowledge by engaging in reading and writing activities, such as comprehending unfamiliar words and reading aloud texts. Several learners can find it more convenient to transcribe or read texts,

especially when faced with challenges in comprehending information that is presented verbally.

d) Kinesthetic learners (K) Kinesthetic learners (K) improve information most efficiently by participating in hands-on, practical exercises involving movement learning tasks. This style is preferred over conventional learning in the classroom, which emphasizes physical exercises in the formal setting.

Three experts in education and academic psychology assessed the content and constructed the validity of the VARK-translated version before initiating the process. After reviewing the questionnaire items, this evaluation ensured that participants rapidly comprehended the content. The participants were identified by administering the VARK questionnaire. They could choose one or multiple options aligned with their preferred learning styles. In addition, participants were then directed to assess different learning styles and preferences activities using a Likert-type scale consisting of five points: five indicating strong agreement and one indicating strong disagreement with each statement. The following table illustrates the learning style preferences of 64 students who have taken the VARK questionnaire. The preferences consist of four modalities: single-modal, bi-modal, tri-modal, and quad-modal. The four subsequent categories of learning style preferences, namely Visual (V), Aural (A), Read/Write (R), and Kinesthetic (K), are the foundational elements of these preferences that can be used in learning tasks.

3.3 The Sample of the Study

The study investigated participants chosen from four well-established preparatory schools in Thi-Qar, Iraq. The population and sampling procedures employed the formulas established by Krejcie and Morgan (1970) to ascertain the appropriate sample size for the study. To obtain 64 participants for the academic year 2023-2024, each sample member was randomly selected; 30 were female, and 34 were male.

This sample size represents the EFL students in four different schools in the educational headquarters sector in Thi-Qar. Based on the sample model developed by Krejcie and Morgan (1970). The population for this study comprised 120 Iraqi EFL students in principle; a random sample of 64 was then selected from this population. It was chosen from among several preparatory schools. As a result, both males and females approved the VARK questionnaire process following the study's previously established procedures.

Table 3.1 The Demographic Information of the Participants

As shown in Table 3.1, gender equality seeks to achieve this by guaranteeing that the results apply to both males (53%) and females (47%). By doing so, potential gender equity in sample size, educational status, and other demographic data can be adequately accounted for, and gender biases can be effectively avoided. Each item allowed the participants to select their preferred learning style. The distribution of preferences was computed using the specification utilized by this VARK. Four modalities of student VARK: visual, auditory, reading/writing, and kinesthetic. Each item aims to direct participants toward preferred learning tasks efficiently.

4. Data Collection

A learning styles questionnaire VARK was adapted to collect quantitative data on participants' English as foreign-language learning preferences. First, the sample was submitted to four questions about age, gender, marital status, and the two most recent semesters' GPA. The VARK questionnaire is a standard tool whose validity and reliability were established by experts in TESL at the English department—the second part surveyed learning styles using a 7-point Likert scale. Participants are advised to select variations under their tendencies toward the most effective learning styles for English. As such, participant preference is indicated by higher scores in each learning style. The range of item scores is one to five. Achievement for the previous two semesters determined the student's academic performance in English tests. According to the GPA scale utilized in the Iraqi educational system, participants were classified

as follows: HD 85% and above (High Distinction), CR (65–74% (Credit)), P (50–64% (Pass)), and 49% and below F (Fail). The converted GPA from the scaling marks was utilized for this purpose.

5. Data Analysis

Importing data from Google Forms online was crucial to prevent any data loss. A descriptive analysis was conducted on the entire sample. Every analysis was performed utilizing version 24 of the IBM SPSS statistical software. The relationship and distribution of categorical data associated with the learning preferences of VARK components and English language proficiency were examined using the chi-square test. The mean and standard deviation were employed in a descriptive test to identify the statistically significant values of the participants' scores concerning the preferred VARK models. Likewise, proficiency level and student preference coefficients were utilized as predictors for the probability reporting of each learning style within an atmosphere of positive learning. A statistically significant value was defined as one that was equal to or less than 0.05 at this level.

Similarly, the VARK questionnaire has a reliability coefficient of 0.85%, establishing its suitability for the study's execution. The researcher distributed the instruments to students attending four Thi-Qar preparatory schools. The validity and reliability of the VARK and SILL questionnaires were assessed through expert consultation in the field of TESL and the utilization of Cronbach's alpha coefficients (α=0.86). The study employed SPSS software to analyze participant ratings and ascertain their learning cycle preferences in the foreign language context to determine their preferences for learning styles in classroom activities.

6. Results and Discussion

The findings from the questionnaire regarding learning styles indicate that visual learning was the most commonly employed style among the preparatory school participants. Subsequently, participants utilized auditory learning less. In addition, kinesthetic learning was found to be used less frequently compared to the preceding learning styles. In the same vein,

the findings indicated that among the 64 participants, no statistically significant correlation was observed between the genders of the participants and their preference for learning. Moreover, there was a correlation between learning style preferences and English proficiency, particularly among preparatory students who utilized visual and auditory learning styles. Ultimately, the single preference model obtained the highest score, while the quad-modal model received the lowest score as the participants preferred.

Table 6.1 Models of Learning Styles Preferred by participants in learning

Table 6.1 illustrates that out of the total 64 participants, the single preference model accounted for the most significant rating score (M=3.22, SD=.863), comprising 39.1% of the sample. Subsequently, bi-modal preference (M=2.81, SD=.814) comprises 35.9% of participants. Furthermore, tri-modal has a minor rating score (M=2.09, SD=.921), and the percentage is 14.1% of the total sample, whereas quad-modal has the lowest score (M=1.64, SD=.824) and the percentage is 10.9%.

Figure 6.1 Models of Learning Styles Preferred by participants in learning

As seen in Figure 6.1, of the total 64 participants, the single preference model accounted for the most significant number of the chosen participants. In contrast, the quad-modal has the lowest number of participants that preferred this model of learning styles.

Table 6.2 VARK Models Preferred by participants in learning

Table 6.2 presents a single preference divided into four parts: visual, audio, read/write, and kinesthetic. It highlights the effects of using multimodal learning styles (VARK). According to research question 1, "What are the preferred learning styles of preparatory students in the English language enrollment setting?", they are essential tools in learning and teaching and play a crucial role in knowledge development. Most participants rate themselves as visual learners (M=3.70, SD=1.20), and the highest percentage of the sample is 50.0%. After that, 28.1% of all participants (M=3.02, SD=.845) have an aural learning style. Besides, the Read/Write learning

style has a low rating score (M=2.41, SD=1.06) and a low percentage of the whole sample is 12.5%. Furthermore, the Kinesthetic learning style has the lowest rating score (M=2.06, SD=1.00), and the lowest percentage of the sample is 9.4%.

Figure 6.2 VARK Models Preferred by participants in learning

Based on the data presented in Figure 6.2, most of the 64 participants prefer the visual learning style. Conversely, the kinesthetic learning style is associated with the smallest number of participants favoring this learning model.

Table 6.3 Chi-square Correlation between Learning Style Preferences and English proficiency

Table 6.3 shows the correlation coefficients between learning style preferences and English proficiency, precisely preparatory students' visual and auditory learning styles. The Pearson Chi-Square statistic for the Visual model is $\chi 2=193.37$, $p<0.05$, and the Aural model is $\chi 2= 182.70$, $p<0.05$. On the contrary, the results show no correlation coefficients between Read/Write, Kinesthetic model preferences, and English proficiency. The Read/Write model is $\chi 2=147.77$, $p<0.05$, and the Kinesthetic is $\chi 2=146.65$, $p<0.05$. The null hypothesis 1, which argues that "*There are no preferred learning styles of preparatory students in the English language enrollment setting",* is rejected.

To investigate the correlation between students' learning preferences and the academic performance they attain in the English language. Ascertaining the impact of learning styles on their English proficiency based on research question 2, "*Is there a correlation between learning style preferences and English proficiency employed by preparatory students?*" The results significantly emphasize students' learning style preferences and English proficiency. Additionally, these results suggest that students overwhelmingly employ two learning styles: visual (illustrations, films, diagrams), auditory (music, discussion, lectures), and tactile/kinesthetic (experiments, hands-on activities, making lists, reading textbooks, and taking notes). They try to acquire additional information to utilize it effectively in the language they

wish to learn. Additionally, learning styles increase motivation by encouraging students to participate in classroom learning activities independently.

Consequently, students can comprehend by employing these interest-based learning styles. The null hypothesis 2, which argues that *"There is no correlation between learning style preferences and English proficiency employed by preparatory students"*, is rejected based on the result, as p is less than 0.05. The result is statistically significant because the p-value exceeds the critical alpha value ($p < 0.05$).

Figure 6.3 Liner Regression between learning style preferences and English proficiency

In Figure 6.3, The scatterplot visualization of the aggregated results indicates the fitted regression line between VARK and English proficiency on close-line distribution. Hence, the discernible linear pattern evident in the scatterplot, in conjunction with the substantial regression coefficient, facilitates an accurate evaluation of the impact of VARK on the English proficiency of the participants—the anticipated value. The findings of the VARK questionnaire, particularly in the English proficiency test (med-term), were completed using the SPSS 20 software. Consequently, statistically significant correlations were established among these variables. Based on the findings of this analysis, a positive correlation between English language proficiency and VARK is plausible.

Table 6.4 Linear Regression Coefficients Between VARK Preferences and English Proficiency

As displayed in Table 6.4, the simple linear regression model investigated the predictive relationship between VARK and English proficiency. The overall scores of 64 participants were analysed to establish a correlation between VARK and the associated improvement in English proficiency. A statistically significant model was identified through the linear regression analysis ($F(1,64)=.605$, $p< 0.05$; adjusted $R^2=.39$). According to this development, VARK is responsible for approximately 39% of the variability observed in the English proficiency of individuals who were included in the sample.

Moreover, it can be observed that the adjusted R square of VARK, which is appropriate for participants to understand the material, is crucial for English proficiency, as it climbs by 0.26 units per year. The current value is an indicator that becomes apparent at the starting point of the academic year 2023-2024. In the same regard, the statistical analysis revealed a significant positive correlation between VARK and English proficiency (t (1,64)=605, p<.001), thereby validating the predictive capability of VARK to the English proficiency reported by the participants. Therefore, the second null hypothesis of the study is rejected.

According to gender, male and female EFL students demonstrate distinct preferences regarding using VARK models to complete various English activities throughout the entire learning procedure. Regarding learning new knowledge, the results indicate that English proficiency is not significantly different from VARK in academic environments.

Table 6.5 Distribution Scores of Gender and VARK Preference

The findings of the independent samples test, as presented in Table 6.5, suggest no statistically significant variation in VARK scores between the male and female groups. In response to research question 3, "*Does a correlation exist between gender and preferable learning styles for English language Performance?*" The results suggest no statistically significant distinction between male and female participants concerning gender preference in VARK. This conclusion is based on an analysis of the VARK implications in English learning across all participants, male and female. In this regard, the Visual model revealed f (1,63),.759=.387, p<0.05 for males (M=3.84, SD=1.26) and females (M=3.58, SD=1.14). Besides, the Aural model revealed f (1,63), 3.89=.053, p<0.05 for males (M=3.23, SD=.884) and females (M=2.82, SD=.769). Moreover, the Read/Write model revealed f (1,63), .009=.925, p<0.05 for males (M=2.42, SD=.958) and females (M=2.39, SD=1.17). Finally, Kinesthetic model revealed f (1,63), 1.60=.211, p<0.05 for males (M=2.23, SD=.990), and females (M=1.91, SD=1.01). Therefore, null hypothesis 3, which posits that "*There is no correlation between gender and preferable learning styles for English language Performance,* "is accepted.

Teachers' integration of VARK in teaching means hearing, seeing, reading, writing, and touching. Teachers can assess their students' learning preferences and adapt their teaching methods to meet their learning needs. Furthermore, English teachers can use the VARK model to determine how their students learn best and then change how they teach to fit those needs. In this context, VARK can be especially helpful when teaching English because:

a) **Visual learning**: Students can learn best by seeing, and teachers can use more pictures, posters, charts, diagrams, and videos to help them understand words, grammar, and sentence structure. In the same way, students can say what they think about non-linguistic text by guessing and talking about the message that the visual images in the teaching materials effectively send.

b) **Auditory learning**: Listening activities, group discussions, and public speaking can help auditory learners get better at speaking and listening. People who learn best through hearing remember things better when presented through sound and speech. Auditory learners usually remember what their teacher says, and they have to be able to pick up new words when they use English.

c) **Reading/writing learning**: Students may like more traditional methods to read and write, like reading books, writing essays, and taking notes. This skill is used often in and out of the classroom to help students get better at reading and writing. It's based on skimming to get the main idea and scanning for specific information from the written text.

d) **Kinesthetic Learning**: Students can boost their English skills through movement and physical interaction, like role plays, language games, and hands-on projects. It's a fun and easy way for students to work on their sight words or get the whole class moving and integrating sounds correctly.

To conclude, English teachers can make the classroom a better place for all their students to learn by recognizing and accommodating these different ways of learning. With this

method, students learn English faster and more efficiently, making them more enthusiastic about learning English. For this reason, using VARK to teach English lets teachers meet the needs of all of their students' different learning styles. As a result, various teaching methods can work with the VARK model to make learning more exciting and tailored to each student, ultimately leading to better language skills and more confidence in speaking English.

7. Conclusion

There are several essential focused factors in which this study contributes to learning styles. In particular, this study has highlighted the effect of the learning styles students prefer to learn new information according to their proficiency level. The results report a significant preference with students of a higher level of language proficiency in learning styles than less proficient students, helping them to think about appropriate ways of solving the problems in the classroom and foster their learning effectively. In other words, those learning styles encourage students to adopt multi-techniques to store, retrieve, and process information in learning activities. This study highlights the crucial significance of learning styles in learning, particularly in making learning English as a foreign language enjoyable. Teachers should implement well-designed instructional methods in educational environments that deviate from traditional techniques, such as incorporating online learning and modern technologies, to enhance students' motivation and engagement with VARK modalities. Furthermore, successful classroom leadership should strive to engage a wide range of students to facilitate their English language development through multi-learning styles. Notably, these recommendations have been discovered to substantially influence students' academic performance when they use suitable VARK models to learn English effectively.

7.1 Limitations of the Study

The following are the limitations of the study:

1. For this study, sixty-four participants were drawn from preparatory schools in Nasiriyah, Iraq.
2. The primary data were obtained from the VARK questionnaire and the students' scoring

system within the 2023-2024 med-term semester academic year.

References

1. Bollinger. (2003). The need for diversity in higher education. *Academic Medicine, 78*(5), 431-436.
2. Carbo. (1983). Research in reading and learning style: Implications for exceptional children. *Exceptional children, 49*(6), 486-494.
3. Carjuzaa, & Kellough. (2013). *Teaching in the middle and secondary schools*: Pearson Boston, MA.
4. Cassidy. (2004). Learning styles: An overview of theories, models, and measures. *Educational psychology, 24*(4), 419-444.
5. Dağ, & Geçer. (2009). Relations between online learning and learning styles. *Procedia-Social and Behavioral Sciences, 1*(1), 862-871.
6. Dobson. (2010). A comparison between learning style preferences and sex, status, and course performance. *Advances in physiology education, 34*(4), 197-204.
7. Dörnyei, & Skehan. (2003). 18 Individual Differences in Second Language Learning. *The handbook of second language acquisition*, 589.
8. Dunn. (1984). Learning style: State of the science. *Theory into practice, 23*(1), 10-19.
9. Dunn, & Griggs. (2000). *Practical approaches to using learning styles in higher education*: Bloomsbury Publishing USA.
10. Fleming, & Baume. (2006). Learning Styles Again: VARKing up the right tree! *Educational developments, 7*(4), 4.
11. Fleming, & Bonwell. (2001). *How Do I Learn Best: A Student's Guide to Improved Learning; VARK, Visual Aural Read/write Kinesthetic*: Neil Fleming.
12. Fleming, & Mills. (1992). Not another inventory, rather a catalyst for reflection. *To improve the academy, 11*(1), 137-155.
13. Fleming, & Mills. (2001). VARK: A guide to learning styles. *Retrieved November, 30*, 2004.
14. Fridley, & Fridley. (2010). Some problems & peculiarities with the learning styles rhetoric and practice. *Journal of Philosophy & History of Education, 60*, 21-27.

15. Hawk, & Shah. (2007). Using learning style instruments to enhance student learning. *Decision Sciences Journal of Innovative Education, 5*(1), 1-19.

16. Honey, & Mumford. (2000). The learning styles helper's guide.

17. Kolb. (1984). Experience as the source of learning and development. *Upper Sadle River: Prentice Hall*.

18. Kolb, & Fry. (1974). *Toward an applied theory of experiential learning*: MIT Alfred P. Sloan School of Management.

19. Krejcie, & Morgan. (1970). Determining sample size for research activities. *Educational and psychological measurement, 30*(3), 607-610.

20. Ormrod, Anderman, & Anderman. (2023). *Educational psychology: Developing learners*: ERIC.

21. Oxford, & Celce-Murcia. (2001). Teaching English as a second or foreign language. *Language learning styles and strategies, 4*, 359-366.

22. Panahi, Kazemi, & Rezaie. (2011). The relationship of learning styles to acodemic achievement: the role of gender and academic discipline.

23. Pashler, Mcdaniel, Rohrer, & Bjork. (2008). Learning styles: Concepts and evidence. *Psychological science in the public interest, 9*(3), 105-119.

24. Peyman, Sadeghifar, Khajavikhan, Yasemi, Rasool, Yaghoubi, Nahal, & Karim. (2014). Using VARK approach for assessing preferred learning styles of first year medical sciences students: a survey from Iran. *Journal of clinical and diagnostic research: JCDR, 8*(8), GC01.

25. Reid. (1995). *Learning styles in the ESL/EFL classroom*: ERIC.

26. Sharp. (2004). A resource for teaching a Learning-Styles/Teamwork module with the soloman-felder index of learning styles. *IEEE Antennas and Propagation Magazine, 46*(6), 138-143.

27. Vita. (2001). Learning styles, culture and inclusive instruction in the multicultural classroom: A business and management perspective. *Innovations in education and teaching international, 38*(2), 165-174.

Tables and Figures

Thi Qar Arts Journal
Vol 8 No 47 Sep. 2024

Table 3.1 The Demographic Information of the Participants

Headquarters Sectors	Gender		Percentage		Proficiency Level
Location	Male	Female	Male	Female	Preparatory
Nasiriyah	34	30	53%	47%	3rd class

Table 6.1 Models of Learning Styles Preferred by participants in learning

SN.	Model	Frequency	Percent	Mean	Std. Deviation
1	Single Preference	25	39.1	3.22	.863
2	Bi-modal Preference	23	35.9	2.81	.814
3	Tri-modal Preference	9	14.1	2.09	.921
4	Quad-modal Preference	7	10.9	1.64	.824
Total		64	100.0	9.76	3.422

Figure 6.1 Models of Learning Styles Preferred by participants in learning

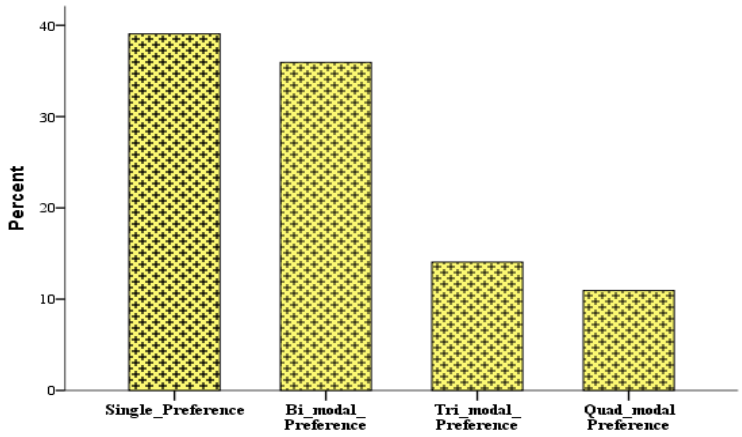

Figure 6.2 VARK Models Preferred by participants in learning

Thi Qar Arts Journal
Vol 8 No 47 Sep. 2024

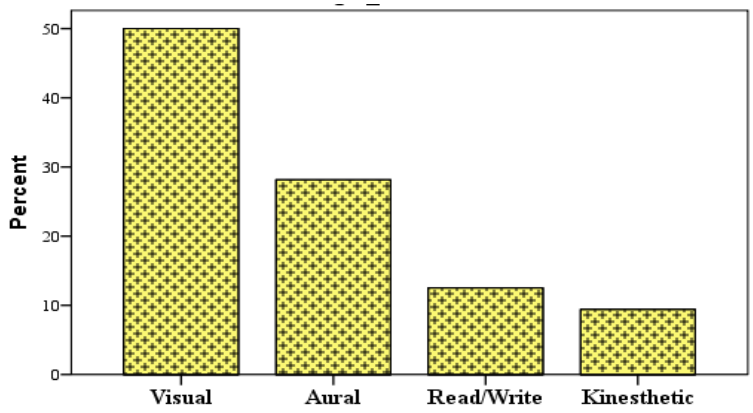

Table 6.2 VARK Models Preferred by participants in learning

SN.	VARK	Frequency	Percent	Mean	Std. Deviation
1	Visual	32	50.0	3.70	1.20
2	Aural	18	28.1	3.02	.845
3	Read/Write	8	12.5	2.41	1.06
4	Kinesthetic	6	9.4	2.06	1.00
Total		64	100.0	11.19	4.105

Table 6.3 Chi-square Correlation between Learning Style Preferences and English proficiency

SN.	VARK Model	Pearson Chi-Square	df	Sig.
1	Visual	193.37	1,63	.002
2	Aural	182.70	1,63	.005
3	Read/Write	147.77	1,63	.231
4	Kinesthetic	146.65	1,63	.251

Thi Qar Arts Journal
Vol 8 No 47 Sep. 2024

Figure 6.3 Liner Regression between learning style preferences and English proficiency

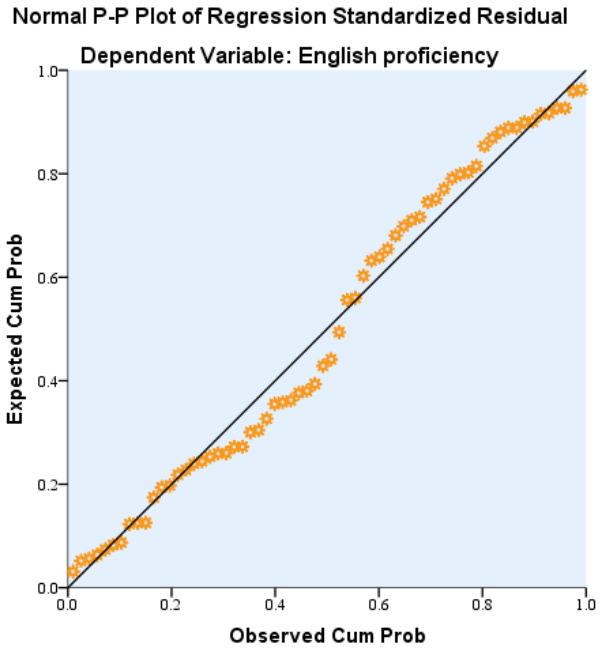

Table 6.4 Linear Regression Coefficients Between VARK Preferences and English Proficiency

Model	Unstandardised Coefficients		Standardised Coefficients	R Square	Adjusted R Square	f	t	Sig.
	B	Std. Error	Beta					
VARK Preferences	68.19	9.12	77.11	.039	0.26	605	7.47	.001
a. Dependent Variable: English Proficiency								
b. Predictors: Kinesthetic, Aural, Read/Write, Visual								

Table 6.5 Distribution Scores of Gender and VARK Preference

VARK	Gender	N	Mean	Std. Deviation	df	f	Sig.
Visual	Male	31	3.84	1.26	1,63	.759	.387

	Female	33	3.58	1.14			
Aural	Male	31	3.23	.884	1,63	3.89	.053
	Female	33	2.82	.769			
Read/Write	Male	31	2.42	.958	1,63	.009	.925
	Female	33	2.39	1.17			
Kinesthetic	Male	31	2.23	.990	1,63	1.60	.211
	Female	33	1.91	1.01			