

UNVEILING PERCEPTUAL LEARNING STYLES: KINESTHETIC AND AUDITORY PREFERENCES ACROSS SEMESTERS IN ENGLISH EDUCATION

Heriyanti Tahang¹, Isnaeni Wahab², Yuliana³

^{1,3}English Language Education/Faculty of Education and Teacher Training,
Universitas Muhammadiyah Sorong, Sorong, Indonesia

²English Language Education/Faculty of Education and Teacher Training,
Universitas Muslim Maros, Maros, Indonesia

heriyanti7@gmail.com

Abstract: Adapting to the evolving needs of education in Indonesia, understanding students' learning style preferences has become increasingly important in supporting effective language instruction. This study aimed to identify the predominant learning styles among students in the English Education Department at Universitas Muhammadiyah Sorong. Employing a quantitative survey design, data were collected from 114 students representing various semester levels using the Perceptual Learning Style Preference Questionnaire (PLSPQ). The results revealed that kinesthetic, auditory, and tactile were the most preferred learning styles, with kinesthetic being the most dominant (mean = 41.74), followed by auditory (mean = 39.65), and tactile (mean = 38.04). These findings suggest that instructional strategies integrating physical activity and multisensory approaches may be most effective for students in this context. The study provides valuable insights for improving English language teaching by aligning methods with students' natural learning preferences.

Keywords: Learning Style Preference, English Education, Kinesthetic Learning, Indonesia, PLSPQ

1. INTRODUCTION

The ability to convey ideas, findings in the form of articles, presentations, journals, and even essays must be supported by the ability of one's language. The ability to process words so that they can convey with a trace of their ideas. One strategy for developing language capacity is through the language learning process. Language learning is one of the most challenging and complex activities students must face. Many factors affect the success of language learning, such as student learning processes, length of study, motivation, age gender, which involve professional guidance and education, as well as personal learning tendencies in receiving, absorbing, organizing, and applying the information they obtain (students' learning style).

Among the factors that have been mentioned, learning styles are one of several factors that have been indicated to affect one's successful in language learning. Therefore, understanding individual potential can help student performance, and language learners' awareness of learning styles, learning strategies, and the ability of students to use these strategies is essential. Due to the lack of attention to student learning styles, according to Musrofi, quoted in Desti Pratiwi and Joharman (2014), it was stated there are only 30% of students succeed in taking lessons in a classroom. This success is due to these students having a learning style that is under the learning style the teacher often uses in the classroom. The rest, or 70% have difficulty following the class lessons. These students with difficulties have different learning styles, which are not by the learning styles that are often applied in the classroom.

Learning style, according to Dunn & Dunn, quoted in Gholami (2014), is how individuals are trying to focus on, process, go deep into, and retain new information or knowledge. According to Reid (1987), learning styles are internally based on the characteristics of statistics, often unconsciously used by students. It can be understood that the learning style is the tendency of each individual to learn something new.

Language learning, especially English as a foreign language, is a complex process affected by multiple factors, including motivation, learning environment, and, notably, students' learning styles. Perceptual learning styles such as visual, auditory, kinesthetic, and tactile influence the way learners engage with material and affect their academic success.

Research conducted to find the relationship between learning styles and learning strategies has begun to be carried out by many experts and academics. Research conducted by Sahragard et al. (2016) found that there was a positive and significant relationship between learning styles and learning strategies. The relationship between learning styles and strategies determines that research linking strategy with styles will bring more beneficial results for both fields and for the learning and teaching process. Theoretically, a learning strategy can serve as an analytical tool for understanding the fundamental elements of a particular learning style that may appear arbitrary and random on the surface. In practical terms, once students know their style preferences, it may be easier for them to see why they prefer to use specific learning strategies and not others.

Furthermore, this awareness will help students develop flexibility to face different learning contexts and ultimately achieve learner autonomy. An understanding of the use of learning strategies by students will enable teachers to adopt appropriate teaching methods that best suit students' learning styles. This will help students develop positive attitudes towards language learning. For us as teachers or lecturers to pay more attention to these two factors.

Research has documented various learning style models. Reid (1987) highlights visual, auditory, kinesthetic, tactile, group, and individual learning styles as influential in language education. When educators fail to recognize and adapt to these diverse learning preferences, many students are at risk of disengagement and underachievement, as teaching approaches may not align with how students learn most effectively.

While existing studies in various countries and academic contexts have explored the prevalence and impact of different learning style preferences among language learners, there remains limited research focusing on the perceptual learning styles of students in the English Education Department at Universitas Muhammadiyah Sorong. This lack represents a significant gap, especially given the unique cultural and institutional factors that may influence the learning preferences.

This research aims to identify the most preferred perceptual learning styles, focusing on kinesthetic and auditory preferences, among English Education students at Universitas Muhammadiyah Sorong across different semesters. Understanding these preferences will contribute to optimizing teaching strategies and enhancing student learning outcomes. Results from this study are expected to provide valuable insights for educators to tailor instructional methods to students' learning needs. Additionally, the findings will help students become more aware of their learning preferences, promoting greater learner autonomy and engagement.

By addressing this objective, the present study aims to fill a critical research gap and provide insights that can inform both instructional practice and curriculum

development within the department. The results are expected to benefit teachers, who can better tailor their methods to student needs, and students, who may become more aware of their own learning preferences and thus more effective and autonomous learners.

2. LITERATURE REVIEW

Perceptual learning style preferences, such as visual, auditory, kinesthetic, tactile, individual, and group learning styles, have become an important focus in English language education (Reid, 1987; Arif et al., 2021; Ghobain & Zughabi, 2024). Understanding the variations in learning styles among students at different semester levels is crucial to help instructors design more effective and inclusive learning strategies to achieve learning objectives.

Several previous studies have shown that English Language Education students typically do not use just one dominant learning style. However, they usually have several minor styles with high preferences, such as kinesthetic, group, tactile, auditory, and visual styles (Arif et al., 2021; Vu & Tran, 2020; Ariani et al., 2021; Sartiah et al., 2019). However, the order of learning style dominance tends to vary depending on the population and research context. Some studies found kinesthetic and group learning styles to be the most dominant, while others showed a more prominent auditory or visual style (Ariastuti & Wahyudin, 2022; Vu & Tran, 2020). Furthermore, learning style preferences can change over time and over students' learning experiences, suggesting the possibility of flexibility and adaptation across semesters (Ghobain & Zughabi, 2024; Chen et al., 2022).

Previous studies have shown a significant relationship between perceptual learning style preferences and the academic achievement of English language students (Ariastuti & Wahyudin, 2022; Liu & Chen, 2023; Vu & Tran, 2020; Hamed & Almabruk, 2021). This further confirms that learning styles that align with learning strategies can support increased student motivation and academic achievement. However, several other studies have also shown no significant differences in academic achievement based on a particular learning style; thus, a multimodal approach is still recommended to accommodate the diversity of student learning styles (Ghobain & Zughabi, 2024; Nge & Eamoraphan, 2020).

Recent literature emphasizes the importance of a multimodal approach in English language teaching, given that students tend to have diverse and flexible learning style preferences (Ghobain & Zughabi, 2024; Xie, 2023; Ariani et al., 2021). Therefore, instructors are advised to identify and accommodate various learning styles in the classroom and encourage students to develop flexibility in using various learning styles (Xie, 2023; Chen et al., 2022). Awareness of students' learning styles can also help instructors and students choose learning strategies, thereby enhancing the effectiveness of the teaching and learning process.

Although much research on perceptual learning styles has been conducted, most studies only collect data from a single point in time or from a single cohort of students, and rarely examine how learning style preferences change across semesters (Arif et al., 2021; Ghobain & Zughabi, 2024; Xie, 2023). The dynamics of students' learning style preferences over time and academic experience remain understudied, particularly within the cultural and curricular contexts at Muhammadiyah University of Sorong.

This study contributes by exploring the learning style preferences of students in the English Language Education Department at Muhammadiyah University of Sorong

across semesters. The results provide deeper insights into students' perceptual learning styles, which can support the development of teaching strategies and curriculum that are more responsive to students' needs during the classroom learning process.

3. METHODOLOGY

This study employed a quantitative survey research design to determine the preference learning styles among students of the English Education Department at Universitas Muhammadiyah Sorong across semesters. The approach was descriptive, aiming to objectively measure and report the learning style preferences across the student in different semesters.

The population targeted in this research consisted of all active students enrolled in the English Education Department at Universitas Muhammadiyah Sorong, totalling 160 individuals with varying semester levels. Given population heterogeneity, the sample was selected using proportional stratified random sampling to ensure representation from each semester. The resulting sample size was 114 students, distributed proportionally according to the number of students in each semester. They were 32, 27, 26 and 29 students from the first semester, third, fifth, into seventh semester respectively.

To find out the types of modalities that are mostly owned by students majoring in English education Reid's (1987) questionnaire PLSP was adopted in this research to get the information about participants' learning style preference. The PLSP indicates students' six styles of learning styles: Visual, auditory, tactile, kinesthetic, group, and individual styles. Students will be asked to respond to 30 statements with a Likert scale answer such as: Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD). A blueprint of the instrument ensured every learning style was equally represented, supporting accurate categorization of student preferences.

The data collection process in this study was conducted through three main, well-structured stages. The first stage was preparation, in which the researcher developed a questionnaire based on Reid's (1987) Perceptual Learning Style Preference Questionnaire (PLSPQ) and converted it into a Google Form for easy and efficient distribution. Furthermore, research planning, including sampling techniques, implementation timelines, and other logistical aspects, was also established to ensure the smooth running of the entire process.

Next, during the implementation phase, the researchers provided a brief explanation of how to complete the questionnaire and the response format to participants before distributing the survey. The questionnaire link was then distributed online to all students selected as samples. The researchers emphasized that students complete the questionnaire independently to ensure honesty and accuracy of their responses, ensuring that the data obtained authentically reflects their learning style preferences.

After the data was collected, the final stage was processing and compiling the data using Microsoft Excel. The obtained data were neatly organized to facilitate initial calculations and subsequent descriptive analysis. Data analysis was performed using descriptive statistics. In descriptive statistics, the answer scores for each learning style were summed and multiplied by two according to Reid's classification, where a score of 38–50 indicates a significant or dominant learning style, a score of 25–37 a minor learning style, and 0–24 a learning style that is rarely

chosen. The mean learning style score was calculated overall and also based on the student's semester, providing a clear picture of learning style preferences at various stages of study.

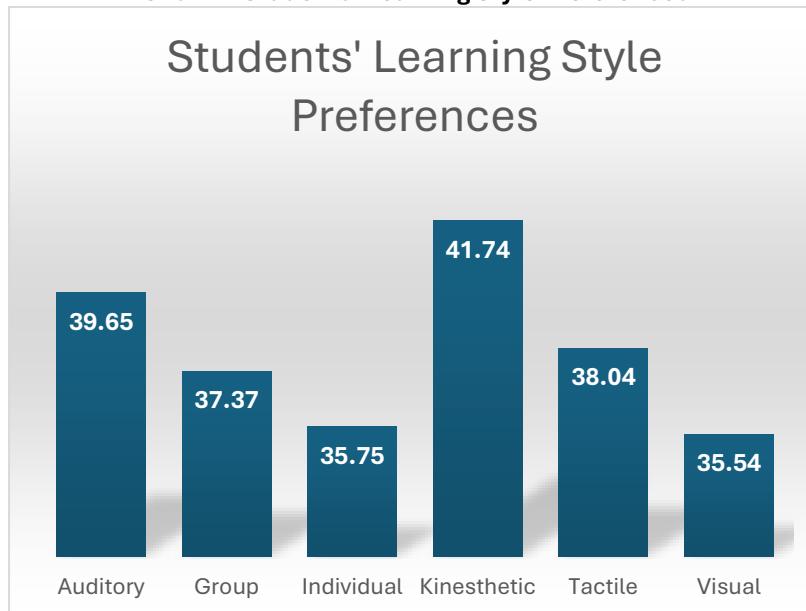
Ethical aspects of the research were also strictly adhered to, with student participation being voluntary and informed consent granted. All data was collected anonymously and used solely for academic purposes to maintain the privacy and security of respondents' information.

4. RESULTS

The PLSPQ questionnaire consists of 30 statements; there are five statements for visual learning styles, five statements for auditory learning styles, five statements for kinesthetic learning styles, five statements for tactile learning styles, five statements for group learning styles, and five statements for individual learning styles. This questionnaire is distributed to all students majoring in English education who are still actively attending lectures. Based on the proportional stratified random sampling applied, the required number of respondents is 114 students. After the data had been collected, the researcher began to calculate and analyze the results of the questionnaire.

To determine the students' learning style preference, the calculation method follows Reid's standard by multiplying the total score of each learning style by two (2). After the score is obtained, the researcher can determine whether the learning style is major, minor, or negligible.

Chart 1. Students' Learning Style Preferences



Based on the results of the study provided in Chart 1., the students' learning style preference at the English Language Education Department is the Kinesthetic learning style with an average value of 41.74 (Major), which was classified as the main or most desirable learning style based on Reid's classification. In second place was the auditory learning style with a mean of 39.65, classified as major. Then, in the third position, there was a tactile learning style with an average of 38.04 classified as major. The fourth choice of learning style was the group learning style, with a mean of

37.37, classified as minor. The fifth choice of learning style is Individual, with a mean of 35.75, classified as minor. The style that English education majors have at least is the visual learning style, with an average of 35.54 classified as minor. The data for different semesters is explained in the following paragraph.

The number of students of the first semester who filled out the PLSPQ questionnaire was 32. Based on the data gathered shown in Chart 2, it was concluded that students' learning style preference among the first semester students was the kinesthetic and auditory learning style. Kinesthetic learning styles in the major category with a presentation of 84.4%, at the minor level 18.8%, and 0% at the negligible level. Furthermore, the kinesthetic learning style was positioned as the highest mean value of 42. On the contrary, the least learned learning style applied by students was the individual learning style. At the major level, it held a presentation value of 21.8%, minor 78.1%, and negligible 3.1%

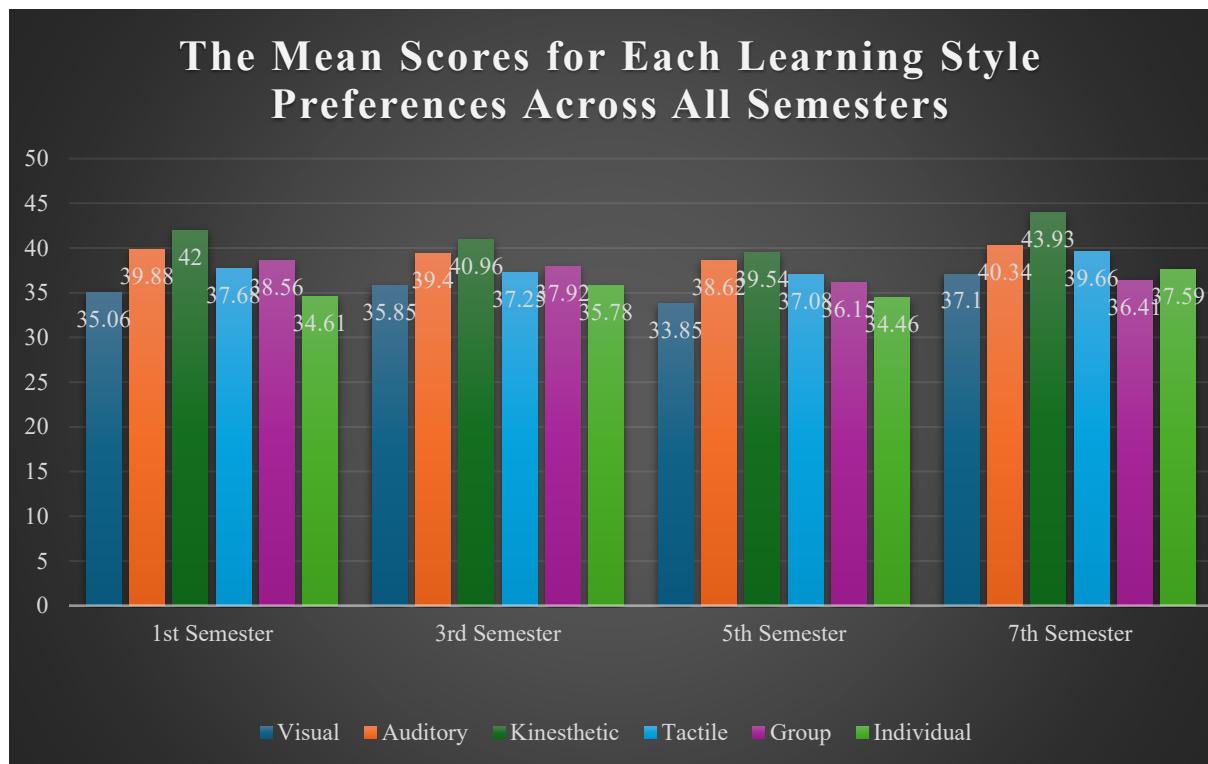
The data from Chart 2. related to 26 students' learning style preferences in the semester also concluded that the most prevalent learning style is the Kinesthetic learning style. Based on Chart 2, the number of students who were in the major category is 19 students or 70.4%, the number of the minor category was seven students or 25.9% and the negligible was one student or 3.7%. While the learning style that 3rd-semester students used least was an individual learning style, with a major number of 7 students or 25.9%, minor 19 students 70.4% and negligible one student or 3.7%

Twenty-six students in the fifth semester, based on the questionnaire, showed that the dominant learning style was the kinesthetic and auditory learning style. At the major level, there were 14 people or 53.8%, at the minor level, there were 10 people, 38.5%, and a negligible two people or 7.7%. Meanwhile, the least learned learning style was the visual learning style, with the minor category amounting to 21 people or 80.8%.

Students in the 7th semester consist of 29 students. Based on the data in Chart 2, it was concluded that the most dominant learning style was the kinesthetic learning style. The number of students in the major category was 27 people or 93.1%, minor two people or 6.9% and negligible 0%. In contrast, the learning styles that were least owned by students in this semester were group learning styles, major 37.9%, minor 55.2%, and negligible 6.9%.

Here is the Chart 2. that describe the mean scores for each learning style across all semesters:

Chart 2. The Mean Scores for Each Learning Style Preferences Across All Semesters



5. DISCUSSION

This study aimed to identify the dominant learning styles among students of the English Language Education Department at Muhammadiyah University of Sorong. The results of the analysis indicated that kinesthetic and auditory learning styles were the most commonly chosen generally. The kinesthetic learning style was particularly selected among students in the third, fifth, and seventh semesters; in contrast, the auditory learning style was more noticeable among students in the first semester. This pattern demonstrated a shift in learning style preferences as studies improvement, where students who are just beginning tend to depend more on the auditory learning style. In contrast, more senior students in higher semesters tend to choose a more practical and active kinesthetic learning style.

These findings align with various previous studies that observed similar patterns. For instance, Widharyanto and Binawan (2020) discovered that students who major in Indonesian Language and Literature Education at Sanata Dharma University also have referred to kinesthetic and auditory learning styles. Besides, Jhaish (2010) from Al Aqsa University conveyed that students with kinesthetic learning styles prevail, followed by kinesthetic and tactile learning styles. Additionally, research by Papilaya and Huliselan (2016) also provided a similar picture, with auditory styles predominating in the Guidance and Counseling Department at Pattimura University, further confirming the findings of auditory style dominance among freshmen in this study.

The kinesthetic learning style, indicated by learning through physical activity and practical experience, appears to be favorably esteemed, especially by students following their study progress. Students with this style are selected to engage in

physical activities, experimentation, and manipulating authentic objects as a learning tool. Their choice for learning strategies is whatever involve the use of their bodies and hands, as well as their preference for solving practical problems rather than simply reading or passively receiving knowledge, was noticeable in the high levels of agreement with statements such as "I prefer to learn by doing things in class" (46.5% strongly agree) and "I enjoy learning in class by doing experiments" (38.6% strongly agree).

These findings align with known results in educational psychology, which emphasize that students were not fixated on a single learning style but develop multimodal preferences that can change and adjust to their individual academic context and learning needs (Tahang et al., 2018; Arif et al., 2021; Ghobain & Zugaibi, 2024; Xie, 2023). The transformation in preference toward a kinesthetic style in later semesters also reflected students' need for more applicable learning strategies and practical experience in comprehending increasingly complex material.

An important implication of this research is the need for educators in English Language Education Departments to integrate various kinesthetic and experiential learning methods, such as role-play, group projects, laboratory assignments, and fieldwork, along with activities that accommodate auditory learning styles, especially for beginning students. This multimodal learning technique not only allows for alignment with students' learning preferences but can also boost engagement, motivation, and academic achievement in English language acquisition. Through learning that includes various sensory experiences, the learning process can be more inclusive and effective (Lethaby & Mayne, 2020; Ariani et al., 2021).

However, this study also has several constraints. First, it was conducted in only one department at one university, so the outcomes may not be generalizable to other contexts. Second, the data utilized were self-reported by students through questionnaires, so they may not fully reflect students' actual learning behavior in the classroom. Third, variables such as gender, previous educational background, and teaching methods were not examined, even though they have the potential to influence learning style preferences.

Therefore, further studies are recommended involving a broader and more diverse sample from various universities and study programs to compare learning style preference patterns more comprehensively. Qualitative approaches such as classroom observations and interviews would be instrumental in obtaining a concrete picture of how these learning style preferences are applied in learning situations.

Overall, the most preference kinesthetic and auditory learning styles among English Language Education students at University Muhammadiyah Sorong strengthen similar findings in different contexts. This underlines the compulsory need for lecturers to employ active, multisensory, and various learning strategies to maximize students' learning potential and academic success.

6. CONCLUSION

This study identified the most dominant learning styles among students of the English Education Department at Universitas Muhammadiyah Sorong. The findings revealed that kinesthetic and auditory learning styles were most preferred, indicating that students generally learn best through direct practice, physical engagement, experiments, and by listening to information. These results highlight the importance for both students and lecturers to recognize individual learning style tendencies so

instructional approaches and learning experiences can be better aligned. Understanding and leveraging these dominant learning styles can help maximize students' learning potential and foster improved academic achievement within English language education.

REFERENCES

Arif, M., Danial, M., & Nurhaeni, N. (2021). Students' perceptual English learning style: major and minor preferences in higher education. *LLT Journal: A Journal on Language and Language Teaching*, 24(2), 349–362.

Ariani, S., Valiantien, N., & Rachmawaty, N. (2021). Students' language learning style preferences at the English Literature Study Program. *CaLLs (Journal of Culture, Arts, Literature, and Linguistics)*, 7(1), 60–72. (<https://doi.org/10.30872/calls.v7i1.5160>)

Arin, N. (2013). Study on correlation between students' perceptual learning style preferences and English proficiency at the English education program of STAIN Tulungagung (Unpublished undergraduate thesis). STAIN Tulungagung, Indonesia. (<http://repo.uinsatu.ac.id/533/>)

Chen, J., Li, H., Jin, M., Xue, J., & Li, J. (2022). Study on the application of learning styles in junior middle school English teaching. In *Proceedings of the 2022 7th International Conference on Financial Innovation and Economic Development (ICFIED 2022)* (pp. 713–718). Atlantis Press. [<https://doi.org/10.2991/aebmr.k.220307.141>] (<https://doi.org/10.2991/aebmr.k.220307.141>)

Chen, M. (2009). Influence of grade level on perceptual learning style preferences and language learning strategies of Taiwanese EFL learners. *Learning and Individual Differences*, 19(2), 304–308. (<https://doi.org/10.1016/j.lindif.2009.02.004>)

Desti Pratiwi, & Joharman, I. S. (2014). Gaya belajar dominan pada siswa berprestasi dalam kegiatan pembelajaran di SD Negeri 2 Gombong tahun ajaran 2013/2014. *Jurnal Pendidikan*, 42(20).

Firissa, B., & Gebremariam, A. (2024). Perceptual learning style preferences (PLSP) and their relationship with English foreign language achievement. *RATE Issues*, 1(3), 15–29. (<https://doi.org/10.69475/ratei.2024.1.3>)

Ghobain, E., & Zughaibi, A. (2024). "Multimodal" fits all: Revisiting the relevance of perceptual learning styles in higher education today. *Theory and Practice in Language Studies*, 14(4), 298–307. (<https://doi.org/10.17507/tpls.1404.08>)

Gholami, R. (2014). Language learning style preferences: A theoretical and empirical study. *International Journal on New Trends in Education and Their Implications*, 2(July 2012), 441–451.

Hamed, M., & Almabruk, A. (2021). Perceptual learning style preferences of English major Libyan university students and their correlations with academic

achievement. *Advances in Language and Literary Studies*, 12(5), 1–10. (<https://journals.aiac.org.au/index.php/alls/article/view/7009>)

Jhaish, M. (2010). A study of learning style preferences among students at Al Aqsa University. [Unpublished thesis].

Lethaby, C., & Mayne, R. (2020). A critical examination of perceptual learning styles in English language teaching. *International Review of Applied Linguistics in Language Teaching*, 58, 221–237. (<https://doi.org/10.1515/iral-2017-0067>)

Liu, M. (2023). English classroom anxiety, learning style, and English achievement in Chinese university EFL students. *Sustainability*, 15(18), 13697. (<https://doi.org/10.3390/su151813697>)

Liu, M., & Chen, Z. (2023). Predictive and mediating effects of learning strategies and styles on Chinese undergraduate students' English achievement. *The Asia-Pacific Education Researcher*, 1–9. (<https://doi.org/10.1007/s40299-023-00775-5>)

Muna, A. V. (2016). Perceptual learning style preference in learning English of the international class program students in the academic year 2015/2016 (Unpublished undergraduate thesis). UIN Salatiga, Indonesia. (<http://e-repository.perpus.uinsalatiga.ac.id/1495/>)

Nge, R., & Eamoraphan, S. (2020). A comparative study of students' perceptual learning style preferences and their academic achievement in learning English as a foreign language at Nelson English Language Centre, Myanmar. *Scholar: Human Sciences*, 12(2), 74–88. (<https://assumptionjournal.au.edu/index.php/Scholar/article/view/3588>)

Nosratinia, M., Mojri, Z., & Sarabchian, E. (2014). Exploring the relationship between EFL learners' language learning styles and strategies. *International Journal of Language Learning and Applied Linguistics World*, 5(2), 253–264.

Papilaya, R., & Huliselan, S. (2016). The dominant learning styles of guidance and counseling students at Universitas Pattimura. [Unpublished thesis].

Sartiah, E., Nur, S., & Maharani, S. (2019). Perceptual learning style in English at Tri Dharma Nusantara Makassar Economic Science College. *Proceedings of the 65th TEFLIN International Conference*, 289–293. (<https://ojs.unm.ac.id/teflin65/article/view/6286>)

Sahragard, R., Khajavi, Y., & Abbasian, R. (2016). Field of study, learning styles, and language learning strategies of university students: Are there any relations? *Innovation in Language Learning and Teaching*, 10(3), 255–271. (<https://doi.org/10.1080/17501229.2014.976225>)

Tahang, H., Sarmin, S., Yuliana, Y., & Taslim, T. (2018). Language Learning Strategies Employed by Successfull Students in Developing English-Speaking Performance. *Qalam: Jurnal Ilmu Kependidikan*, 7(1), 56-65. (<https://doi.org/10.33506/jq.v7i1.354>)

Vu, T., & Tran, D. (2020). Demystifying perceptual learning style preferences of Vietnamese university freshmen in English academic achievement. *International Journal of Learning, Teaching and Educational Research*, 19(9), 15–38. (<https://doi.org/10.26803/ijlter.19.9.2>)

Xie, M. (2023). An empirical study on the perceptual learning style preferences of private college English majors. *The Educational Review, USA*, 7(12), 1184–1192. (<https://doi.org/10.26855/er.2023.12.005>)

Widharyanto, Y., & Binawan, P. (2020). Bimodal learning style preferences of Indonesian language and literature education students at Sanata Dharma University. [Unpublished thesis].

Wintergerst, A. C. (2001). The construct validity of one learning styles instrument: The Perceptual Learning Style Preference Questionnaire (PLSPQ). *System*, 29(3), 345–359. ([https://doi.org/10.1016/s0346-251x\(01\)00027-6](https://doi.org/10.1016/s0346-251x(01)00027-6))