Impact Factor (SJIF): 6.126 E-ISSN: 2583-1615, P-ISSN: 3049-3498

International Journal of Research in Academic World

Received: 07/August/2025 **IJRAW:** 2025; 4(9):160-166 **Accepted:** 18/September/2025

Exploring the Relationship between Perceptual Learning Styles and Academic Achievement in Aizawl's Private Higher Secondary Schools

[*1]Dr. Malsawmkimi and [2]Prof. Lallianzuali Fanai

[*1]Guest Faculty, Department of Special Education Cell, SCERT Mizoram, Mizoram, India.

[2]Principal (Rtd.), IASE Aizawl, Mizoram University, Mizoram, India.

Abstract

This study examines the relationship between students' perceptual learning styles and their academic performance at the secondary school level. Grounded in the theoretical foundations of Reid's (1984) Perceptual Learning Style Preference Questionnaire, this study explored six distinct styles—visual, auditory, kinaesthetic, tactile, group, and individual and how they correlate with students' academic performance. The sample included 192 students from classes XI and XII, who were randomly selected from Oikos Higher Secondary School and Providence Higher Secondary School, covering the Science, Arts, and Commerce streams. Data were gathered utilizing a 30-item Likert scale questionnaire and subsequently analysed employing Pearson's Product Moment Correlation. The findings consistently demonstrated minimal or non-significant correlations among all six perceptual learning styles and academic achievement, thereby reinforcing the null hypothesis that no relationship exists between these variables. The research emphasizes the constraints of depending primarily on learning style frameworks to forecast educational outcomes and stresses the necessity of implementing adaptable and inclusive teaching strategies. It suggests that educators recognize diverse learning preferences not as factors that dictate performance, but as opportunities to improve engagement, motivation, and equity in classroom practices.

Keywords: Learning styles, perceptual learning styles, preference, academic achievement and private higher secondary schools.

Introduction

The concept of "learning styles" refers to the idea that each student has a distinct and preferred method of learning, influencing how knowledge is acquired, processed, understood, and retained in educational settings. Learning style, as defined by Claxton and Ralston (1978) [6], pertains to a student's habitual manner of reacting to and utilizing stimuli in the learning environment, but Woodridge (1995) [18] broadens this concept to encompass how individuals respond to diverse learning environments and classroom interactions. Dunn and Griggs (2000) [8] assert that learning style manifests in the unique methods individuals employ to focus on, process, absorb, and retain new knowledge and abilities, underscoring the complex nature of this concept.

In educational psychology, over seventy various learning style models have been presented, each suggesting a mix of specific learning styles that affect how learners interact with and process educational material. Learning styles are typically classified into three primary categories: perceptual learning styles (associated with sensory modalities), cognitive learning styles (pertaining to information processing preferences), and personality learning styles (rooted in psychological attributes).

Perceptual learning styles, sometimes referred to as sensory learning styles, pertain to the methods by which individuals acquire information from their surroundings via the five senses. Diverse modalities of learning, including visual (learning through observation), auditory (learning through listening), reading/writing (learning through textual engagement), tactile (learning through touch), and kinaesthetic (learning through action), illustrate the process by which stimuli are initially encoded into short-term memory and subsequently transferred to long-term retention through repeated practice and exposure. Visual learners like knowledge conveyed through diagrams, charts, or written formats, whereas auditory learners derive the greatest value from lectures, debates, or auditory materials. Kinaesthetic and tactile learners prefer immersive, hands-on activities that necessitate direct physical interaction with learning materials for maximal comprehension.

By comprehending, recognizing, and incorporating these distinctions, educators can endeavour to establish instructional settings that more effectively accommodate the different preferences present in modern classrooms, thus promoting more inclusive and efficient teaching methods.

***Corresponding Author:** Dr. Malsawmkimi

Rationale of the Study

The necessity for investigating the Perceptual Learning Styles of students arises from the insufficient depth of research concerning learning styles. There has consistently been a lack of information and awareness regarding the learning strategies employed by students. It is widely recognized that many educators often adopt the instructional methods they themselves experienced or those they found most effective for their own learning. Conflicts may occasionally emerge due to a discrepancy between the educator's instructional approach and the student's preferred methods of learning, potentially resulting in adverse effects for both the learner and the instructor. Understanding learning styles is crucial to ensure that tutors provide instruction tailored to the learner's preferences rather than imposing their own. A tutor who adheres strictly to his own pedagogical approach complicates the learning process for the student. Tutors must possess an understanding of various learning styles to effectively assist learners in recognizing their individual preferences for acquiring knowledge. This understanding will empower individuals to cultivate self-assurance and to take charge of their own educational journey.

The lack of initiatives within the educational framework to discern learners' styles and strategies, both in Aizawl and across India, and to associate these with students' academic performance highlighted the necessity for this study. This study is essential for recognizing individual learning styles, as well as for educators to implement appropriate methods and strategies that enhance learner achievement. Therefore, it is imperative to undertake this study, and it has been initiated accordingly.

Review of Related Literature

Vaishnav and Chirayu (2013) [16] conducted a study analysing the learning styles widespread among secondary school students. The study was conducted on three learning modalities: visual, aural, and kinaesthetic (VAK). It also sought to investigate the relationship and impact of various learning styles on students' academic results. A sample of 200 students from the 9th, 10th, and 11th grades in Maharashtra was selected for the study. The study's findings indicated that the kinaesthetic learning style was more predominant than the visual and auditory learning styles among secondary school pupils. A strong positive link found between kinaesthetic learning style and academic achievement. The primary impacts of the three variables—visual, auditory, and kinaesthetic—were substantial on academic performance.

Gappi (2013) [9] examined students' preferred learning styles and their academic performance. The study aimed to: delineate the learning style preferences of students; ascertain whether these preferences varied by age, gender, and academic program; and evaluate the correlation between learning style preferences and students' academic performance. The study participants comprised all 131 freshman students admitted in the first trimester of the 2012-2013 academic year, including 118 national youth and 13 young adults. The Index of Learning Styles (ILS) questionnaire was employed to conduct the study's reason. Authorization to utilize the questionnaire was obtained at no cost online, and the findings indicated that, overall, the students exhibit a rather even distribution across all four characteristics outlined in the ILS questionnaire. The results indicated no significant impact of gender, age, or academic program on students' learning style preferences (r= -0.056). The results indicated no significant statistical association between students' academic achievement and their learning style preferences. This study was conducted among first-year college students; hence, due to the minimal age differences, the results may not differ much.

Gokalp (2013) [10] assessed the learning styles of education faculty students and analysed the impact of these types on their academic progress and the correlation between them. The study population consisted of students from the Faculty of Education at May University, with a sample size of 140 students, including 68 from the art department and 72 from the pre-school teaching department. Based on the outcomes of the pre-test, the objective was to enhance students' knowledge and skills in studying (Gokalp, 2013) [10]. A notable disparity existed between the pre-test and post-test scores. The notable correlation between post-test results and student success indicated that they acquired efficient study skills. The study revealed statistically significant differences between the initial and final assessments of subtests related to learning styles and academic achievement. These subtests encompassed areas such as learning, planned study, effective reading, listening, writing, note-taking, library usage, exam preparation and execution, class participation, and motivation (r= -0.007, r= -0.022, r= -0.018, r= -0.040 respectively). The correlation between post-test scores and grades diminished to a very weak negative association (r= -0.300, r= -0.008, r= -0.034, r= -0.086 respectively).

Maqbool (2015) [14] conducted a study on the learning styles and academic achievement of postgraduate students in Science and Social Science at Kashmir University. The study sample comprised 180 individuals (80 from science and 80 from social science), randomly selected from various postgraduate departments of Kashmir University. D. Venkataraman The Style of Learning and Thinking Inventory was utilized for data gathering. Academic achievement was measured by the marks attained by students in graduation; mean, standard deviation, t-test, and Pearson's correlation were utilized for data analysis. The study's results indicate that science and social science students exhibit considerable differences in learning styles. Students of science and social science exhibit considerable differences in academic achievement. There exists a substantial correlation between learning style and the academic performance of scientific students. There exists a substantial correlation between learning style and the academic performance of social science students. v) There exists a considerable correlation between learning style and academic achievement among students of both science and social science disciplines.

Karalliyadda (2016) examined the learning styles of first-year agricultural undergraduates at a Sri Lankan university to assess the correlation between learning styles and academic achievement. A cross-sectional survey was conducted with a structured questionnaire that included the VARK learning style instrument. The results indicated that the majority of students exhibit multimodal learning methods, which are independent of gender and their high school academic focus in agriculture or biology. The kinaesthetic learning technique has garnered considerable attention. The study found no significant correlation between learning styles and academic achievement.

The study by Vincey and Pugalenthi (2016) [17] examined the relationship between Learning Style and Academic Achievement among students at the XIth standard level. The study employed the survey research approach. The current study utilized a sample of 200 students (100 males and 100 females) selected by a proportionate simple random sampling

procedure. The investigator utilized Learning Style tools established in 2016 for data gathering. Furthermore, academic performance is evaluated based on the marks attained in the XIth class of the State board, assisted, and Matriculation board to assess student achievement. The study's findings indicated that there is no significant difference in the learning styles of boys and females in the XIth standard. (ii) There is no substantial disparity in intellectual achievement between boys and girls at the XIth standard level in school.

Awang (2017) [5] examined the correlation between learning styles and student accomplishment in the topic of History. This study delineates six distinct Grasha learning styles based on gender and their correlation with student accomplishment in the subject of History. Two schools in the Kulim area of Kedah provided a total of 200 pupils as responders. A questionnaire tool was employed to assess students' learning style preferences. Overall, pupils have a greater inclination towards utilizing learning styles, with the exception of avoidance learning styles. The T-test indicated no disparity in learning patterns according to gender. The Pearson correlation study revealed no significant link between learning styles and student achievement in the History course.

Comfort and Zakarada (2021) examined the perceived impact of preferred learning styles on [7] the academic performance of junior secondary school pupils in Rivers State. The research employed a descriptive survey design. The Taro Yamene method was employed to determine a sample size of 398 (188 males and 210 females) from a population of 71,304 junior secondary school students in Rivers State (Planning Research and Statistics Department, Rivers State Senior Secondary School Board). A self-structured 12-item questionnaire entitled "Perceived Influence of Preferred Learning Styles on Academic Achievement Questionnaire" (PIPLSAAQ) was utilized for data collection. The instrument underwent content and face validation by an evaluation specialist. The study's findings indicated no significant difference in the mean scores of male and female students regarding the influence of visual, auditory, and kinaesthetic learning styles on their academic accomplishment in junior secondary schools in Rivers State. The study revealed that an effective learning strategy tailored to the student's learning style yields remarkable outcomes and several prospects for enhanced competence in learning.

Mae *et al*. (2025) [13] conducted a study examining the correlation between learning styles in English topics and academic achievement among students at Sultan Kudarat State University. The study sought to identify the primary learning styles and academic performance of second-year BSED English students and evaluated their influence on academic outcomes. The study utilized a descriptive correlational methodology, employing total enumeration sample of second-year English major students. It employed statistical metrics including frequency, percentage, mean, standard deviation, and chi-square for data analysis. The findings indicated that students predominantly exhibited visual learning styles in perceptual contexts and individual learning styles in social contexts. Certain students demonstrated a synthesis of visual and group or auditory learning, indicating adaptability to diverse pedagogical approaches. Notwithstanding excellent academic performance, no substantial association was seen between predominant learning styles and academic success.

Objective of the Study

The objective of the study is to find out if there is a relationship between the students learning styles and academic achievement.

Hypothesis of the Study

There is no relationship between the student's different perceptual learning styles and academic achievement.

Population and Sample

The population of the study is all students from XIth and XIIth standards students of two Private Secondary schools- Oikos Higher Secondary School and Providence Higher Secondary School which have all the Science, Arts and Commerce streams. The sample consist of 192 students, with 96 each from both schools were randomly selected.

Tools

The scale used for this research is Perceptual Learning Style Preference Questionnaire constructed by Joy Reid (1984). This questionnaire consists of 30 questions measuring 6 learning categories such as Visual, Tactile, Auditory, Group, Kinaesthetic and Individual. It is a 5 point Likert Scale ranging from Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree. The scores are divided into three- Major Learning Style Preference, Minor Learning Styles Preference and Negligible.

Analysis and Interpretation

The gathered data underwent meticulous analysis and interpretation to determine whether a correlation exists between students' learning styles and their academic performance. The relationship between six distinct perceptual learning styles and students' academic achievements was examined using Pearson's Product Moment Correlation. The analysis of various learning styles in relation to the academic performance of all students is presented below.

Table 1: Correlation of Academic Achievement and Scores on Visual Learning Style

	No. of students	Mean	SD	Correlation	Significance Level
Visual	192	35.75	5.08	-0.009	0.05
Marks	192	56.34	7.84		

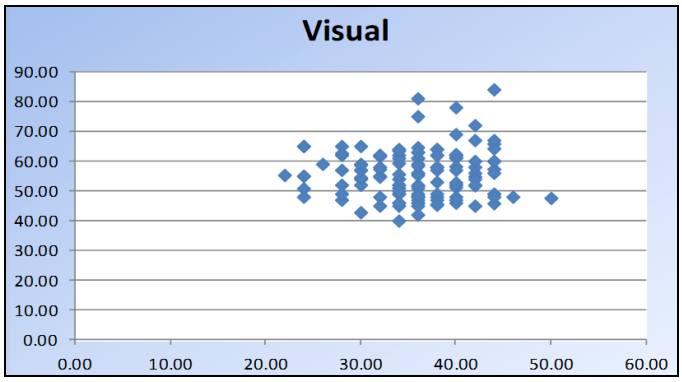

Fig 1: Scatter Diagram showing Correlation of Academic Achievement and Scores on Visual Learning Style

According to Table 1 of Visual Perceptual Learning Style, the mean score for the Visual learning style is 35.75 (SD=5.08), while the mean for academic achievement is 56.34 (SD=7.84). The correlation is reported as -0.009, indicating that the test of correlation lacks significance. The analysis indicates that there is no correlation, and the correlation is negligible, suggesting that the two variables being tested do not influence one another. Consequently, the hypothesis is

accepted.

Table 2: Correlation of Academic Achievement and Scores on Auditory Learning Style

	No. of Students	Mean	SD	Correlation	Significance Level
Audio	192	37.65	5.12	-0.01	0.05
Marks	192	56.34	7.84		

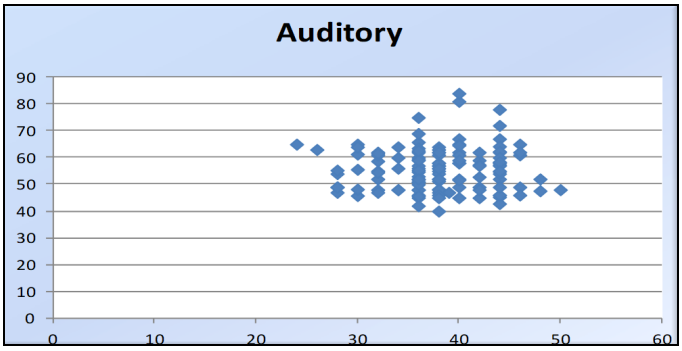

Fig 2: Scatter Diagram showing Correlation of Academic Achievement and Scores on Auditory Learning Style

As indicated in Table 2 of Audio Perceptual Learning Style, the mean scores for audio learning style and academic achievement are 37.65 (SD=5.12) and 57.34 (SD=7.84), respectively. The correlation is measured at -0.01, indicating that the test of correlation is considered insignificant. This suggests that there is no relationship between the two variables, specifically the auditory learning style scores and academic achievement. Therefore, the hypothesis is accepted.

Table 3: Correlation of Academic Achievement and Scores on Kinaesthetic Learning Style

	No. of Students	Mean	SD	Correlation	Significance Level
Kinaesthetic	192	35.31	5.83	0.02	0.05
Marks	192	56.34	7.84		

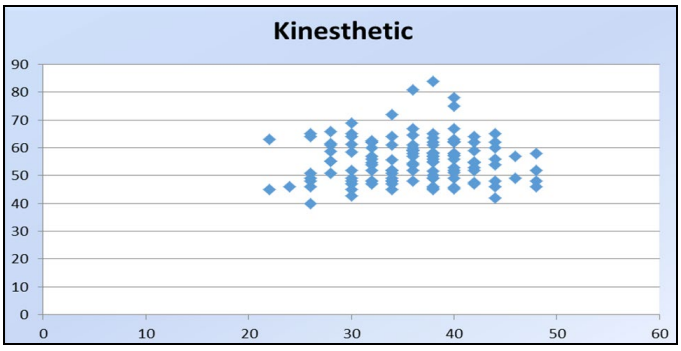

Fig 3: Scatter Diagram showing Correlation of Academic Achievement and Scores on Kinaesthetic Learning Style

Upon perusing Table 3 regarding Kinaesthetic Learning Style, the average scores for Kinaesthetic learning style and academic achievement are 35.31 (SD=5.83) and 56.34 (SD=7.84), respectively. The analysis indicates a correlation of 0.02, suggesting that the correlation test lacks significance. It also suggests that there is no relationship between academic achievement and scores related to kinaesthetic learning style, indicating that they do not influence one another. Consequently, the hypothesis is accepted.

Table 4: Correlation of Academic Achievement and Scores on Tactile Learning Style

	No. of Students	Mean	SD	Correlation	Significance Level
Tactile	192	34.63	6.32	-0.06	0.05
Marks	192	56.34	7.84		

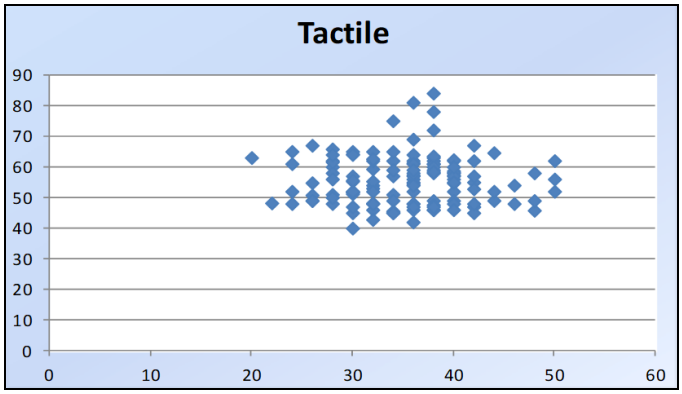

Fig 4: Scatter Diagram showing Correlation of Academic Achievement and Scores on Tactile Learning Style

An analysis of data presented According to Table 1.4 of Tactile Learning Style, the average score for the tactile learning style is 34.63, with a standard deviation of 6.32. The average for academic achievement stands at 56.34, with a standard deviation of 7.84. The analysis revealed a correlation of -0.06, indicating that the correlation test lacks significance. This suggests that there exists no relationship between the two variables; specifically, the scores related to tactile learning style and the academic achievement of the students have no impact on one another. Therefore, the hypothesis has been considered acceptable.

Table 5: Correlation of Academic Achievement and Scores on Group Learning Style

	No. of Students	Mean	SD	Correlation	Significance Level
Group	192	31.75	7.27	0.15	0.05
Marks	192	56.34	7.84		

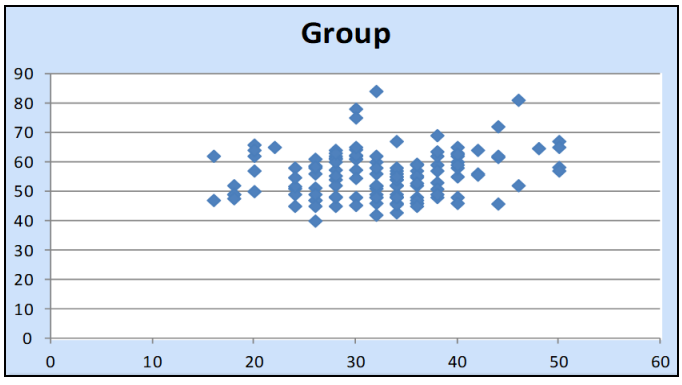

Fig 5: Scatter Diagram showing Correlation of Academic Achievement and Scores on Group Learning Style

Analysis of data via Table 1.5 shows that the mean score for group learning style is 31.75 (SD=7.27), while the mean score for academic achievement is 56.34 (SD=7.84). It likewise

displays a correlation of 0.15, indicating that the correlation test is statistically insignificant. This implies that there is no relationship between the two factors regarding Group Learning Style. Thus, the hypothesis is accepted.

Table 6: Correlation of Academic Achievement and Scores on Individual Learning Style

	No. of Students	Mean	SD	Correlation	Significance Level
Individual	192	35.93	6.89	-0.06	0.05
Marks	192	56.34	7.84		

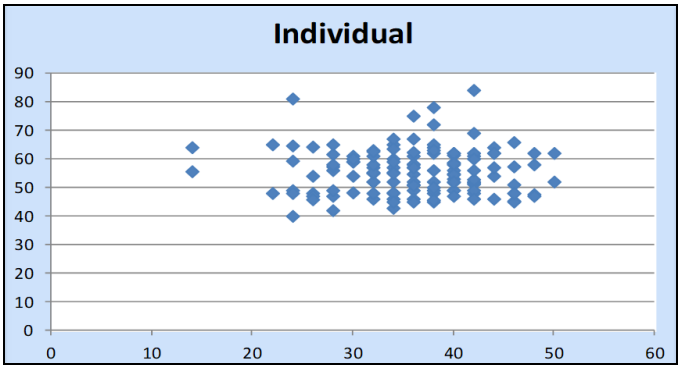

Fig 6: Scatter Diagram showing Correlation of Academic Achievement and Scores on Individual Learning Style

An incisive examination of data presented Table 1.6 indicates that the average for Individual learning style is 35.93 (SD=6.89), while the average for academic achievement is 56.34 (SD=7.84). The correlation coefficient is determined to be -0.06, indicating that the correlation test yields insignificant results. This suggests that there exists a minimal correlation, indicating an absence of any significant relationship between the two variables the scores reflecting individual learning styles and the academic performance of the students.

In assessing the strengths and directionality of a linear relationship between two variables, specifically the scores associated with various learning styles and the academic achievement of students, it has been determined that no correlation exists between these factors. This study indicates that there is, in general, no discernible difference in learning style preferences when correlated with academic achievement.

Discussion

The Pearson Product Moment Correlation analysis reveals no evidence of a significant relationship between students' Perceptual Learning Styles and their academic achievement. The findings indicate that there exists no significant correlation between learning styles and academic performance. The values of the coefficient of correlation indicate that there is no of correlation between academic achievements and the scores associated with various learning styles among students, suggesting that a particular learning style does not influence academic outcomes.

These findings are consistent with previous studies carried out by a range of scholars. A study conducted by Gappi (2013) [9] examined the relationship between students' preferred learning styles and their academic achievements, revealing no significant statistical correlation between the two variables. Lesa (1981) [12] additionally indicated that a weak negative correlation exists between learning style and academic performance. Research undertaken by Aranya (2011) [3] and Al Khatib and Ghosheh (2013) has similarly indicated that the preferences students exhibit in their learning styles do not align with their academic performance outcomes.

Nonetheless, it is undeniable that the diverse learning styles of students play a significant role in shaping their academic success. Research has demonstrated that the academic success of students is significantly shaped by their individual learning styles. Research conducted by Abidin *et al*. (2011) utilizing Joy Reid's Perceptual Learning-Style Preference Questionnaire (1987) has revealed a noteworthy correlation between overall academic performance and learning styles. Vaishnav and Chirayu (2013) [16] have demonstrated a significant positive correlation between kinaesthetic learning style and academic achievement. The primary influences of the three variables visual, auditory, and kinaesthetic were substantial on academic performance. The divergent findings underscore the complexity within the current body of literature, indicating that while certain studies report an absence of correlation, others propose that preferences in learning styles could potentially affect student outcomes when aligned with suitable instructional contexts.

Educators and curriculum developers in secondary education must acknowledge that learners assimilate knowledge and skills through diverse modalities, influenced not solely by their perceptual inclinations but also by their cultural, social, and economic environments. Students hailing from varied backgrounds often gravitate towards multiple or blended learning styles instead of conforming to a singular approach, highlighting the necessity of fostering inclusive classrooms that cater to diverse learner requirements. As Ambruster *et al*. (2009) noted the practice of teaching must not be static; rather, it should evolve dynamically. Educators are encouraged to utilize a diverse array of instructional strategies that incorporate visual, auditory, kinaesthetic, and collaborative methods to enhance engagement and understanding. Given the imperative of educational inquiry, the current investigation employed Pearson's Product Moment Correlation analysis to explore the association between students' perceptual learning styles and their academic performance. The findings indicated an absence of statistically significant correlation between the two variables, suggesting that preferences for visual, auditory, kinaesthetic, tactile, group, or individual learning did not align with student performance in quantifiable terms. The results align with earlier studies conducted by Gappi (2013) [9], Lesa (1981) [12], Aranya (2011) [3], and Khatib and Ghosheh (2013) [2], each of which presented comparable evidence indicating a lack of correlation between learning style preferences and academic performance. The current findings bolster the growing agreement in scholarly discourse that learning styles, in isolation, serve as inadequate predictors of academic success, thereby casting further doubt on the efficacy of tailoring instruction solely to personal learning preferences.

Suggestions

i). Educators must engage in careful contemplation of the various learning styles that exist within their classrooms and adapt their instructional methods accordingly. This approach ensures that the diversity of learners is acknowledged and effectively supported throughout the educational experience.

ii). Enhancing students' understanding of their preferred learning styles and enabling them to leverage these strengths can significantly contribute to the cultivation of

enduring learning habits.

iii). School leaders are urged to enrich classroom diversity by offering a diverse array of instructional materials, including those specifically designed for visual, auditory, kinaesthetic, tactile, group, and individual learning modalities—integrating technology, student-led projects, and presentations whenever feasible.

iv). Educators might find it advantageous to discern the learning styles that are most effective within specific subject domains, allowing them to tailor their approaches in accordance with the prevailing preferences, thus promoting more focused and significant instruction.

v). Both educators and administrators ought to engage in a thorough examination of the factors that facilitate learners' adaptability in their learning approaches, while simultaneously addressing barriers that may impede the evolution of these styles.

vi). It is advisable to conduct further investigation into the relationship between learning styles and teaching styles, as enhancing this comprehension can profoundly elevate students' educational experiences and maximize learning outcomes.

vii). The allocation of resources towards suitable infrastructure and contemporary facilities is poised to significantly enhance and cultivate the diverse development of students' learning modalities.

Encouraging active participation and engagement in the learning process is essential; such involvement can significantly enhance both motivation and academic achievement.

These recommendations enable educators to gain a clearer understanding of their students' learning preferences, allowing them to effectively implement appropriate instructional strategies within their educational institutions.

Conclusion

In summary, although the present study concludes that perceptual learning styles do not serve as significant predictors of academic achievement, the results should not undermine their importance within the learning process. Instead, they emphasize the importance of a multifaceted educational strategy that appreciates diversity in teaching while avoiding an excessive focus on rigid learning style frameworks. Educators and curriculum designers are encouraged to persist in embracing adaptable and responsive pedagogical approaches that address the diverse needs of learners, thereby fostering participation, engagement, and equitable access to knowledge. This comprehensive strategy can more effectively foster students' overall growth by recognizing their individual differences while ensuring a commitment to instructional methods that have demonstrated success in improving achievement.

References

1. Abidin MJZ, Rezaee AA, Abdullah HN & Singh KKB. Learning styles and overall academic achievement in a specific educational system. *International Journal of Humanities and Social Science.* 2011; 1(10):143-152. https://ijhssnet.com/journals/Vol_1_No_10_August_2011/19.pdf
2. Al Khatib, SA & Ghosheh SK. Perceptual Learning Style Preferences in Relation to Gender, Academic Achievement and Field of Study among a Sample of UAE College Students. *Scholars Journal of Arts, Humanities and Social Sciences.* 2013; 1(02):69-80. doi : 10.36347/sjahss.2013.v01i02.004
3. Aranya S. Learning styles of language learners in an EFL writing class. International Conference on Education and Educational Psychology (ICEEPSY 2011). *Procedia-Social and Behavioral Sciences*. 2011; 29:1555-1560. DOI:10.1016/j.sbspro.2011.11.397 https://www.researchgate.net/publication/271881074_Learning_styles_of_language_learners_in_an_EFL_writing_class
4. Armbruster P, Patel M, Johnson E & Weiss M. Active learning and student-centered pedagogy improve student attitudes and performance in introductory biology. *CBE Life Science Education.* 2009; 8(3):203-213. https://doi.org/10.1187/cbe.09-03-0025
5. Awang NIMM. The Relationship of Student Learning Styles and Achievement in History Subject. *International Journal of Social Sciences and Humanities Invention.* 2017; 4(3):3372-3377. https://doi.org/10.18535/ijsshi/v4i3.04 https://valleyinternational.net/index.php/theijsshi/article/view/765
6. Claxton DS & Ralston Y. *Learning styles: The impact on teaching and administration* (Research Report No. 10). Washington DC: American Association of Higher Education, 1978.
7. Comfort AGI & Zakarada MA. Perceived Influence of Preferred Learning Styles on Academic Achievement of Junior Secondary School Students in Rivers State. *International Journal of Innovative Education Research.* 2021; 9(3):225-233. https://www.seahipublications.org/wp-content/uploads/2025/03/IJIER-S-24-2021.pdf
8. Dunn R & Griggs SA (Eds.). *Practical Approaches to Using Learning Styles in Higher Education*. Bergin & Garvey, 2000.
9. Gappi LL. Relationships between Learning Style Preference and Academic Performance of Students. *International Journal of Educational Research and Technology.* 2013; 4(2):70-76. https://soeagra.com/ijert/ijertjune2013/11.pdf
10. Gokalp M. The Effect of Students' Learning Styles to their Academic Success. *Creative Education.* 2013; 4(10):627-632. doi 10.4236/ce.2013.410090 https://www.scirp.org/pdf/CE_2013100710522263.pdf
11. Karalliyadda C. Learning Style and Academic Performance of First Year Agricultural Undergraduates: A Case in Rajarata University of Sri Lanka. *Journal of Agricultural Sciences – Sri Lanka.* 2017; 12(1):34. DOI:10.4038/jas.v12i1.8204 https://www.researchgate.net/publication/312013732_Learning_Style_and_Academic_Performance_of_First_Year_Agricultural_Undergraduates_A_Case_in_Rajarata_University_of_Sri_Lanka#:~:text=The-,study%20concluded%20no%20substantial%20association%20between%20learning%20styles%20and%20academic,to%20avoid%20the%20biased%20errors
12. Lesa RF. Learning Style of Samoan Students. *Dissertation Abstracts International.* 1991; 42(03):786-A.
13. Mae DR, Kalido SSM, Hunas MES, Llamo EJ, Alido RC & Marata WLB. Learning Styles in English Subjects and Students' Academic Performance at Sultan Kudarat State University. *Randwick International of Education and Linguistics Science (RIELS).* 2025; 6(1):109-122. DOI:

https://doi.org/10.47175/rielsj.v6i1.1135 1135-Article Text-3473-1-10-20250411.pdf
14. Maqbool A. Learning style and academic achievement of post graduate students of University of Kashmir. I*nternational Journal of Advanced Research.* 2015; 3(7):822-826. https://www.journalijar.com/article/5420/learning-style-and-academic-achievement-of-post-graduate-students-of-university-of-kashmir/ https://www.journalijar.com/uploads/978_IJAR-6484.pdf
15. Reid JM. The learning style preferences of ESL students. *TESOL Quarterly.* 1987; 21(1):87-111. https://blogs.baruch.cuny.edu/compositionpedagogyseminar/files/2024/03/Andrija-Csilla.pdf
16. Vaishnav RS & Chirayu KC. Learning Style and Academic Achievement of Secondary School Students. *Voice of Research*. 2013; 1:1-4.
17. Vincey D & Pugalenthi N. A Study of Learning Style And Academic Achievement of the Student at Standard XIth Level. *Shanlax International Journal of Arts, Science & Humanities,* 2016, 3(4). https://www.shanlaxjournals.in/pdf/ASH/V3N4/Ash_V3_N4_018.pdf
18. Woodridge B. Increasing the effectiveness of university/college instruction: Integrating the results of learning style research into course design and delivery. In R.R. Sims & S. J. Sims (Eds.), *The importance of learning styles*. Westport, CT: Greenwood Press, 1995, 49-67.