ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 12| December 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

# PERCEPTUAL LEARNING STYLES AND ACADEMIC PERFORMANCE OF GRADE 8 STUDENTS IN SCIENCE CLASS: IMPLICATION FOR INSTRUCTION

**Amy S. Manan**

**Article DOI:** https://doi.org/10.36713/epra25419
**DOI No: 10.36713/epra25419**

## CHAPTER 1
## INTRODUCTION

A significant challenge in academic settings arises from teachers' insufficient awareness of diverse student learning styles, which can hinder effective instruction and student success. When educators are not attuned to whether students learn best through visual, auditory, kinesthetic, or other modalities, they may default to teaching methods that only benefit a subset of learners. This disconnect can lead to decreased student engagement, comprehension, and overall academic performance, as students struggle to grasp concepts presented in a way that doesn't align with their individual learning preferences.

The importance of understanding learning style preferences lies in improving personal learning efficiency, enhancing motivation and confidence, and allowing educators to create more effective and inclusive environments. By tailoring instruction or study methods to an individual's preferences, like visual, auditory, or kinesthetic learning, learners can better understand and retain information, leading to better academic performance and a greater ability to adapt to new challenges. Learning styles play a significant role in how students process information and acquire new concepts in science. Perceptual learning styles—such as visual, auditory, read/write, and kinesthetic modalities—shape how learners absorb, organize, and recall information. In the science classroom, these perceptual preferences may influence engagement, comprehension, and overall academic performance.

In the Philippine context, the challenge of teachers' limited awareness of learning styles is compounded by issues such as overcrowded classrooms and insufficient resources. Studies reveal that Filipino students have diverse learning style preferences, including visual, auditory, and kinesthetic modalities. When teachers are unable to adapt their instruction to these varied learning styles, many students may struggle, contributing to the country's ongoing concerns about academic performance and global assessment rankings.

Despite existing research on the impact of learning styles an academic performance, there remains a significant gap in studies specifically addressing the awareness and implementation of differentiated instruction among teachers in the Philippines, Most current literature focuses on theoretical frameworks rather than practical applications in diverse classroom settings, leaving a void in understanding how effectively educators can tailor instruction to meet the unique learning preferences of Filipino students. Hence, this study sheds light onto the recognition of learning styles as notable tools for instruction that will affect the development of students and their academic performance.

### *Significance of the Study*

The findings of this study hold significant implications for the following beneficiaries:

*Students.* This study allows them to understand their personal learning preferences, leading to improved engagement and academic performance in various subjects, particularly science. By determining effective teaching strategies tailored to their learning styles, students can achieve better comprehension and retention of scientific concepts, fostering a more enjoyable and productive learning experience.

*Teachers.* This study will allow teachers to gain valuable insights into the diverse learning needs of the students, making them adapt their instructional strategies accordingly. Moreover, the study will highlight the importance of differentiated instruction, equipping teachers with strategies to implement varied teaching methods that cater to various learning styles, thereby maximizing student participation and success.

*School Administrators.* The findings of this study may be utilized by school administrators to promulgate teacher-development programs and training focused on understanding and integrating learning styles in the curriculum. This will contribute to creating a more inclusive educational environment that enhances overall school performance and student satisfaction.

*Policy-makers.* Policymakers can benefit from this study by gaining evidence-based recommendations that can shape educational policies and curriculum reforms. By recognizing the importance of learning styles in academic achievement, policies can be developed to promote teacher training initiatives that emphasize the need for customized instructional strategies in classrooms nationwide.

*Future Researchers.* This study will situate a basis for exploring further dimensions of learning styles in education. The research

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 12| December 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

will open pathways for studies examining long-term impact of tailored instructional strategies on student performance. This will also prompt the conduct of further studies that will highlight qualitative inputs to understand more the lived experiences of participants as regards the matter attributed.

***Statement of the Problem***

This study aims to examine the perceptual learning styles of Grade 8 students and their relationship with academic performance in science.

This study further seeks to answer the following:

1. What are the predominant learning styles of Grade 8 students in science class?
2. What is the level of academic performance of grade 8 students in science?
3. Is there a significant relationship between the perceptual learning style and the academic performance of Grade 8 students in science?
4. Is there any perceptual learning style that significantly influence the academic performance of Grade 8 students in science?

***Hypothesis***

The null hypotheses were examined at 0.05 level of significance.

HO1: There is no significant relationship between perceptual learning style and academic performance of Grade 8 students in science.

HO2: There is no particular perceptual learning style that significantly influence the academic performance of Grade 8 students in science.

***Theoretical and Conceptual Framework***

This study in anchored on Howard Gardner's Theory of Multiple Intelligences (1983). This expresses that individuals possess a variety of intelligences that reflect different ways of processing information and learning. Gardner originally identified seven distinct intelligences, each representing a unique pathway to learning and understanding. This theory challenges the traditional view of intelligence as a single, fixed attribute, emphasizing that individuals may excel in different areas based on their specific intelligences. By recognizing these diverse intelligences, educators can design more comprehensive and inclusive teaching strategies that cater to the varied strengths of their students.

Moreover, this study in intricately linked to the aforementioned theory, as it seeks to explore how acknowledging and accommodating different learning styles can enhance academic performance in science. By assessing various students' learning styles, this study aims to determine recommendations to teaching methods and strategies that resonate more effectively with students who possess specific strengths. In particular, the potential alignment of instruction and individual styles can lead to improved engagement and comprehension in science, thereby improving academic performance and providing empirical support of Gardner's theory of Multiple Intelligences, per se.

The figure that follows emphasize the conceptual framework of the study involving the independent variable (Learning Styles) along with its indicators and the dependent variable (Academic Performance)

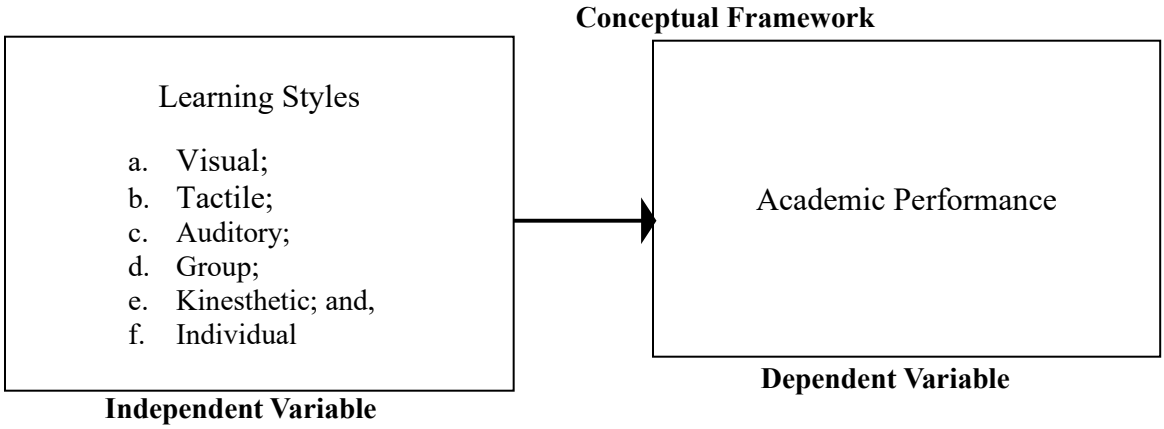


**Figure 1. Conceptual Framework of the Study**

## CHAPTER 2
## METHODOLOGY

The researcher outlined the methodologies employed in this chapter. Key elements such as the research design, locale of the study, sample and sampling method, research instrument, data collection procedure, data analysis, and ethical considerations are carefully detailed to guide the progression and direction of this study.

*Research Design*. This used a quantitative, non-experimental, correlational research design to explore the relationships between learning styles and academic performance. The quantitative approach was suitable because it allowed for the collection of measurable and objective data, facilitating a thorough, data-driven evaluation of the relevant variables (Creswell & Creswell, 2018). A non-experimental design was selected since manipulating variables related to students' academic experiences, skills, or attitudes would have been impractical and posed ethical issues. Thus, the research focused on observing existing

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 12| December 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

conditions and perceptions to identify statistically significant relationships among variables.

*Locale of the Study*. The research was carried out in Davao City, the only highly urbanized area in the Davao Region of the Philippines. Specifically, the study was conducted at a public secondary school managed by the Department of Education in Cluster 14. As Davao City increasingly established itself as a center of educational excellence, there was a growing need to evaluate students' academic performance in relation to their learning styles in order to meet the diverse demands within the educational landscape.

*Sample and Sampling*. The participants of the study will consist of 158 junior high school grade 8 students, selected through stratified random sampling, a method that divides the population into specific subgroups before randomly selecting individuals from each group, from Cabantian National High School to ensure representation across all sections.

Within the context of the study, especially when using inferential statistics and structured surveys, a sample size of 158 is typically deemed adequate. Kline (2023) recommended that sample sizes between 100 and 200 are suitable for regression and factor analyses, provided the data adhere to normality criteria. Likewise, Taherdoost (2022) observed that a sample of 100 respondents can produce reliable results in survey-based research when the population is relatively homogeneous.

*Research Instrument.* The study will use two main instruments: an adapted version of the Perceptual Learning Style Inventory (PLSI) to assess six perceptual learning style—Visual, Tactile, Auditory, Group, Kinesthetic, and Individual—on a 5-point Likert scale, and students' grade in science from school records to measure academic performance. Data will be analyzed using descriptive statistics to determine levels of perceptual learning styles and academic performance, Pearson correlation to examine their relationship, and multiple regression analysis to identify which learning style significantly predict academic performance in science.

Perceptual Learning Style among grade 8 students in science was scaled using the following Likert scale:

| Range of Means | Descriptive Equivalent | Interpretation |
|---|---|---|
| 4.20-5.00 | Very High | The perceptual learning style of the students is considered excellent. |
| 3.40-4.19 | High | The perceptual learning style of the students is considered very good. |
| 2.60-3.39 | Moderate | The perceptual learning style of the students is considered fairly good. |
| 1.80-2.59 | Low | The perceptual learning style of the students is considered somewhat good. |
| 1.00 - 1.79 | Very Low | The perceptual learning style of the students is considered poor. |

Lastly, the researcher will use the Department of Education's grading scale for the learners' learning outcomes, noting DO 08, s. 2015. The grading scales, with their respective corresponding descriptors, are in the table below:

| Range of Means | Descriptive Equivalent | Interpretation |
|---|---|---|
| 90-100 | Outstanding | This means that the academic performance of the grade 8 students in science is excellent. |
| 85-89 | Very Satisfactory | This means that the academic performance of the grade 8 students in science is very good. |
| 80-84 | Satisfactory | This means that the academic performance of the grade 8 students in science is good. |
| 75-79 | Fairly Satisfactory | This means that the academic performance of the grade 8 students in science is fairly good. |
| Below 75 | Did Not Meet Expectations | This means that the academic performance of the grade 8 students in science is poor |

*Data Gathering Procedure*. The researcher followed these procedures during the conduct of the data collection process to ensure that adequate and precise information was gathered from the respondents of the study:

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 12| December 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

The data gathering procedure for this study commenced with seeking approval from the school principal and the research adviser. This initial step was essential to ensure compliance with school policies and ethical standards governing research involving students. A formal proposal outlining the study's purpose, methodologies, and potential benefits was presented to both the principal and the adviser to secure their endorsement. Once approval was obtained, this facilitated smoother communication and cooperation with school authorities, thereby establishing a supportive environment for the research process.

Following the approval, the next step involved distributing consent forms to parents and assent forms to the students. The consent forms were designed to inform parents about the nature of the study, its objectives, and the measures taken to ensure their children's privacy and well-being. Simultaneously, assent forms were provided to the students, ensuring they understood their participation in the research and providing them the opportunity to ask questions. This dual approach not only adhered to ethical guidelines but also fostered trust and transparency between the researchers and the participants' families, laying the groundwork for active participation in the study.

Once the necessary approvals and consents were secured, the administration of the Perceptual Learning Style Inventory began. This inventory was crucial for assessing the diverse learning styles of the participating students. Concurrently, the academic grades were collected from the school's registrar or the respective science teachers to establish a comparative basis for academic performance in relation to the identified learning styles. Following the data collection, the next step involved encoding, organizing, and analyzing the data. This process included inputting the responses from the inventory and academic grades into a database, ensuring systematic organization for efficient analysis. Subsequently, statistical tools were employed to interpret the data, allowing for an examination of correlations between learning styles and academic performance, thus addressing the objectives of the study.

*Data Analysis.* The data were analyzed using the following statistical tools:

Mean. This was used to describe the level of perceptual learning style among the grade 8 students in science.

Pearson Moment Correlation Coefficient (Pearson r). This was used to examine the significance and strength of the relationship between the independent (Perceptual Learning Style) and dependent (Academic Performance) variables.

Simple Linear Regression., This was used to determine the indicators of Perceptual Learning Style that significantly influence the Academic Performance of grade 8 students in science.

*Ethical Consideration.* This study was carried out with respect, fairness, and justice for all participants, particularly the respondents. The researchers emphasized the importance of obtaining informed consent, safeguarding the privacy and confidentiality of respondents, evaluating potential risks and benefits, and providing valuable insights to the field. The study followed the ethical guidelines established by the Ethics Committee to maintain the integrity of the research process. Throughout the study, transparency was a key focus. Respondents were fully informed of their rights, allowed to participate voluntarily, and assured they could withdraw from the study at any time without facing any negative repercussions.

Furthermore, the safety and well-being of the respondents were paramount. Appropriate measures were implemented to protect personal information in accordance with the Data Privacy Act of 2012. The researcher was dedicated to ensuring fairness and justice, treating all respondents equitably, and ensuring their responses accurately reflected their perceptions and experiences. Additionally, efforts were made to maintain transparency by addressing any potential conflicts of interest throughout the study's duration.

## CHAPTER 3
## RESULTS

In the chapter, the researcher presented the results of the study and their corresponding interpretation in relation to the research questions and objectives. The collected data were meticulously analyzed and presented through tables, figures, and narrative descriptions. Each section emphasizes key findings and explores their implications, linking them to pertinent literature and theoretical frameworks. The purpose of this chapter is to deliver a thorough understanding of the study's results and to provide insights into their importance in relation to the research problem.

### Summary of the Predominant Perceptual Learning Styleof the Grade 8 Students in Science

Table 1 expressed the predominant learning tyle of the grade 8 students in science including visual, tactile, auditory, group, kinesthetic, and individual.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 12| December 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

**Table 1. The Predominant Learning Style of the Grade 8 Students in Science**

| Learning Style Indicators | Mean | Descriptive Level |
|---|---|---|
| Visual | 3.73 | High |
| Tactile | 3.70 | High |
| Auditory | 3.84 | High |
| Group | 3.53 | High |
| Kinesthetic | 3.74 | High |
| Individual | 3.68 | High |
| **Overall** | **3.70** | High |

The data presented in the table summarized the learning styles of junior high school students, showcasing mean scores across various modalities: visual, tactile, auditory, group, kinesthetic, and individual. Notably, auditory learning has the highest mean score of 3.84, indicating a strong preference for auditory-based methods such as lectures and discussions. Close behind are the visual (3.73) and kinesthetic (3.74) learning styles, suggesting that students also highly value visual aids and hands-on activities. The tactile approach, with a mean score of 3.70, shows a lower yet significant level of engagement, while the individual learning style maintains an overall mean of 3.68, reflecting a strong appreciation for individualized learning opportunities.

These insights carried implications for instructional strategies in junior high schools. With auditory learning being favored, educators should prioritize incorporating discussions, audio materials, and interactive lectures to cater to this preference. Additionally, the significant scores for visual and kinesthetic learning indicate the importance of diverse teaching methods that include visual elements and practical activities to enhance understanding and retention. While tactile learning shows a slightly lower preference, it remains valuable, indicating a need for a balanced approach that integrates multiple styles. By recognizing these varied learning preferences, educators can create a more engaging and effective learning environment that addresses the needs of all students.

**Summary of the Level of Academic Performance of Grade 8 Students in Science**

Table 2 expressed the level of Academic Performance of grade 8 students in science.

**Table 2. The Level of Academic Performance of Grade 8 Students in Science.**

| Number of Students | Mean | Descriptive Level |
|---|---|---|
| **N-158** | **86.44 %** | **Very Satisfactory** |

The data presented in the table expressed a summary of the academic performance of junior high school students, indicating that a total of 158 students were assessed, resulting in a mean score of 86.44%. This score falls within the "Very Satisfactory" descriptive level, suggesting that the majority of students in this cohort are performing well academically. The high mean score indicates a strong overall understanding and mastery of the curriculum, reflecting positively on both the students' efforts and the effectiveness of the educational strategies employed in their instruction.

These findings are significant as they provide insight into the academic success of junior high school students, which can inform future educational practices and policy decisions. An average of 86.44% suggests not only a solid grasp of essential knowledge but also the potential for students to engage with higher-order thinking skills. Educational stakeholders may consider this data as a benchmark for assessing and improving programs, as well as for identifying areas where students may need additional support. Overall, the results encourage a celebration of academic achievements while also prompting an ongoing commitment to maintain and enhance student performance through effective teaching and learning strategies.

**The Relationship Between Perceptual Learning Styles and Academic Performance of Grade Students in Science**

Table 3 expressed the relationship between perceptual learning styles and academic performance of grade 8 students in science.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 12| December 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

**Table 3. The Relationship between perceptual learning styles and academic performance of grade 8 students in science.**

| | Academic Performance | | | |
|---|---|---|---|---|
| | r | p-value | Decision on $H_0$1 at α 0.05 level of significance | Interpretation |
| **Learning Styles** | 0.190 | 0.016 | Reject $H_0$1 | There is a significant positive correlation between the determined variables. |

The data in the table presented summarized the statistical analysis of the relationship between learning styles and academic performance. The correlation coefficient (r) is reported as 0.190, which suggests a weak positive correlation between the two variables. Given that the p-value is 0.016, which is less than the standard alpha level of 0.05, we reject the null hypothesis ($H_0$). This indicates that there is a statistically significant association between learning styles and the academic performance of students.

The interpretation of these results implies that students' learning styles may have some influence on their academic outcomes. While the correlation is weak, the findings warrant further exploration into how different learning styles can be leveraged to enhance student performance. Educators might consider adapting instructional methods to fit diverse learning preferences, potentially leading to improved engagement and success in academic endeavors. This significant correlation encourages further research, aimed at understanding the nuances of this relationship and identifying specific strategies that align learning styles with effective teaching practices.

**The Perceptual Learning Style Indicators that Significantly Influence Academic Performance (Regression)**

Table 4 expressed the perceptual learning style indicators that significantly influence academic performance of grade 8 students in science.

**Table 4. The Perceptual Learning Style Indicators that Significantly Influence Academic Performance (Regression).**

| | Academic Performance | | | | | | |
|---|---|---|---|---|---|---|---|
| | Unstandardized Coefficients | | Standardized Coefficients | | | | |
| **Learning Styles** | **B** | **Std. Error** | **Beta** | **t** | **Sig.** | **Decision on $H_0$3** | **Interpretation** |
| Constant | 80.482 | 1.786 | | 45.050 | .000 | | |
| Individual | 1.620 | .476 | .262 | 3.407 | .001 | Reject $H_0$3 | Significant Predictor |
| Visual | - | - | .054 | .620 | .536 | Accept $H_0$3 | Non-Significant Predictor |
| Tactile | - | - | .057 | .702 | .483 | Accept $H_0$3 | Non-Significant Predictor |
| Auditory | - | - | -.079 | -.997 | .321 | Accept $H_0$3 | Non-Significant Predictor |
| Group | - | - | .057 | .773 | .464 | Accept $H_0$3 | Non-Significant Predictor |
| Kinesthetic | - | - | .089 | 1.146 | .253 | Accept $H_0$3 | Non-Significant Predictor |

Table 4 emphasized that the regression analysis examining the impact of various dimensions of learning styles on academic performance. The unstandardized coefficient (B) for the "Individual" predictor is 1.620, with a significance level (p-value) representing a significant predictor of academic performance, as indicated by its p-value being below the typical threshold (often 0.05). In contrast, the "Visual," "Tactile," "Auditory," "Group," and "Kinesthetic" predictors show non-significant effects, as suggested by their corresponding significance values exceeding the alpha level. Specifically, the t-values for these predictors

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 12| December 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

indicate they do not contribute meaningfully to predicting academic performance.

Interpreting these findings, it appears that individual learning styles significantly influences academic performance, suggesting that students who possess higher individual learning styles tend to achieve better academic results. However, the lack of significance in the other dimensions (Visual, Tactile, Auditory, Group, and Kinesthetic) implies that these factors do not have a direct impact on academic performance in this context. This highlights the importance of fostering individual learning styles among students as a strategy to enhance their academic performance, while also suggesting that a broader exploration of how these other dimensions might interact with learning styles and learning processes could be beneficial for future research.

## DISCUSSION

### Perceptual Learning Styles of Grade 8 Students in Science

As presented, the learning styles of junior high school students highlighted five indicators: Visual, Tactile, Auditory, Group, and Kinesthetic, each rated at a "High" level of preference, as indicated by their mean scores. With a mean of 3.73, visual learners demonstrate a strong inclination toward visual aids such as diagrams, charts, and videos. Research supports this notion, as studies have shown that visual learners retain information more effectively when it is presented visually (Raiyn, 2016). Therefore, educators could enhance student engagement and comprehension by incorporating more visual elements into their teaching.

The mean score of 3.70 for tactile learners indicates that these students thrive in hands-on learning environments. Here, students often grasp concepts better when allowed to manipulate materials (Ribosa & Duran, 2022), suggesting that experiential learning techniques—like labs or interactive projects—could prove especially effective for junior high students. Meanwhile, the auditory learning style, with a mean of 3.54, signifies that students who prefer listening can process information most effectively through discussions, lectures, and audiobooks. Al-Khresheh (2024) emphasize the importance of integrating group discussions and oral presentations to cater to these learners' needs.

Furthermore, the high mean score of 3.53 for the group learning style reflects a significant preference for collaborative learning among students. This supports Vygotsky's (1978) social constructivism theory, which emphasizes the role of social interaction in the learning process (Wibowo et. Al, 2025). Thus, educational strategies that prioritize group work can foster meaningful peer learning experiences. The kinesthetic learning style, with a mean of 3.74, indicates that these students benefit from movement and hands-on activities. Active learning strategies have been shown to enhance retention through physical engagement (Munna & Kalam, 2021), suggesting that incorporating role-playing or educational games could particularly benefit kinesthetic learners.

Hence, the mean score of 3.70 indicates that junior high students exhibit a well-rounded preference across these various learning styles, highlighting the need for a multifaceted approach to education. This perspective aligns with Gardner's (1983) Theory of Multiple Intelligences, which advocates recognizing diverse learning preferences in educational settings. Understanding these learning styles can inform curriculum design and teaching strategies, creating a more inclusive educational environment. By leveraging the strengths of visual, tactile, auditory, group, and kinesthetic learning preferences, educators can enhance student engagement and achievement. Tailoring instruction to meet these diverse needs is fundamental for fostering an effective learning atmosphere, and future research could further explore the interplay between these styles and academic performance, shedding light on personalized learning pathways that benefit all students.

### Academic Performance of Grade 8 Students in Science

As indicated, the mean score of 86.44% for junior high school students suggested a strong academic performance, categorized as "Very Satisfactory." This level of achievement likely stems from effective teaching strategies, as highlighted by Ozan (2018), who emphasizes the importance of formative assessment and feedback. Additionally, student engagement is crucial; Delfino (2019) note that active involvement in learning correlates directly with academic success. Support from educators and family also plays a significant role, with research by Latorre-Cosculluela (2022) showing that emotional and academic encouragement can lead to improved outcomes.

Furthermore, fostering a growth mindset, as advocated by Srem-Sai et al. (2025), encourages students to view challenges as opportunities for development, enhancing resilience and performance. Socio-economic factors also influence academic success, with studies like Munir and Faiza (2016) indicating that schools addressing these challenges can help close achievement gaps. Overall, the solid performance reflects a comprehensive educational environment where effective teaching, engagement, and support converge to bolster student success. Future research could offer further insights into optimizing these elements in diverse contexts.

### Relationship Between Perceptual Learning Style and Academic Performance of Grade 8 Students in Science

The data presented in the table suggested a significant positive correlation between learning styles and academic performance ($r = 0.190$, $p = 0.016$), allowing for the rejection of the null hypothesis ($H_{01}$). This finding underscores the importance of recognizing and adapting to diverse learning styles within educational settings. Research over the past few years has corroborated this connection, demonstrating how tailoring educational experiences to individual learning preferences can enhance student engagement and performance.

To put into context, a systematic review by Makhambetova et al. (2021) emphasizes that personalized learning approaches, which

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 12| December 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

take into account various learning styles, significantly improve academic outcomes. Additionally, studies conducted by Alabi (2024) highlight that students who are taught in a manner that aligns with their preferred learning styles (auditory, visual, kinesthetic) tend to display higher motivation and retention of information, which ultimately translates into better performance. These findings align with Gardner's Theory of Multiple Intelligences, suggesting that recognizing the unique capacities of each student can lead to more effective educational strategies (Goyibova et al., 2025)..

Furthermore, the emphasis on learning styles shows that incorporating varied instructional methods not only accommodates individual differences but also fosters a more inclusive classroom environment. This approach not only promotes academic success but also contributes to positive social interactions among students, enhancing their overall educational experience.

Hence, significant correlation between learning styles and academic performance calls for educators to adopt flexible teaching methods. By doing so, they can cater to the diverse needs of students, ultimately fostering an environment where all learners can thrive. Future research should continue to explore innovative instructional strategies that can effectively engage all students, ensuring that educational practices evolve to meet the challenges of a dynamic learning landscape.

**Perceptual Learning Styles Indicators Significantly Influencing Academic Performance of Grade 8 Students in Science**

The data presented in the table reflected the relationship between various learning styles and academic performance, revealing that only individual learning styles emerge as a significant predictor of academic success, while the other modalities—visual, tactile, auditory, group, and kinesthetic—do not demonstrate statistically significant correlations. The unstandardized coefficient for individual learning styles (B = 1.620), coupled with its statistical significance, implies that personal learning preferences can meaningfully influence academic outcomes. Research supports this idea, as numerous studies have shown that tailoring educational practices to accommodate individual learning styles can lead to improved academic performance. This is emphasized in the study by Alabi (2024) as he demonstrated that when students learn in ways that align with their preferences, they engage more deeply with the material, resulting in better retention and performance.

While the significance of individual learning styles is clear, the lack of statistical significance in other modalities raises important questions about their effectiveness. The data suggests that a one-size-fits-all approach to education, which emphasizes multiple learning modalities, may not yield the anticipated benefits. Moreover, Straub (2025) points out that while accommodating learning styles can enhance engagement, it does not always correlate with improved performance, complicating the narrative around the effectiveness of varied instructional strategies.

The importance of individual learning styles indicates that educators should engage in careful diagnosis of students' learning preferences to create a tailored approach that enhances motivation and academic achievement. Potential strategies include differentiated instruction and the use of formative assessments to better understand how students learn Westedt (2019) and Nhan (2024). Additionally, the findings suggest a cautious stance when employing multi-modal teaching techniques. Here, Caga (2017) emphasizes that a mismatch between teaching style and learning style can lead to confusion rather than clarity, indicating that a greater emphasis on individual adaptation may yield better academic outcomes.

Thus, the data highlighted that while individual learning styles significantly predict academic performance, other modalities do not share the same impact. This suggests a critical reevaluation of how educational strategies are tailored. Future research should explore the mechanisms behind individual learning styles and their influence on academic success more deeply. By embracing a more nuanced understanding of learning preferences, educators can craft learning environments that foster not only academic excellence but also personal growth and engagement among students. Ultimately, this human-centered approach in education can prepare students for both academic and real-world challenges, enhancing their overall educational experience.

## CHAPTER 4
## CONCLUSION

In this chapter, the researcher shares the main conclusions of the study, bringing together the key findings and offering practical recommendations for those who will benefit from this research. The insights gained are vital for enhancing learning outcomes through the promotion of perceptual learning style. This focus on perceptual learning style aims to create a richer and more effective learning experience for everyone involved.

Based on the findings of the study, the following conclusions are drawn:

The findings of this study provide valuable insights into the learning styles and academic performance of junior high school students. The data reveals that students exhibit a high level of various learning styles, with auditory learning preferences (mean score of 3.84) showing the most pronounced significance compared to other modalities, such as visual (3.73), tactile (3.70), individual (3.68), group (3.53), and kinesthetic (3.74) styles.

The overall mean score of 3.70 for learning styles indicates that these students benefit from a diverse range of learning approaches, which can be instrumental in shaping effective educational strategies. Moreover, the academic performance of these students is notably impressive, with an average score of 86.44%, categorizing their performance as “very satisfactory.” This suggests that, in general, the students are not only engaging

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 12| December 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

with their learning materials but are also achieving commendable academic results.

Importantly, the study highlights a significant positive correlation between learning styles and academic performance, with a correlation coefficient of 0.190 and a p-value of 0.016. This indicates that when educational methods align with individual learning styles, it can lead to better academic outcomes. However, the analysis also points out that while individual learning styles serve as a significant predictor of academic performance, other styles such as visual, auditory, and group methods do not hold the same predictive power.

These findings underscore the necessity for educators to focus on individual learning preferences in their teaching practices. Personalizing instruction to align with how students learn best can foster deeper engagement, motivation, and, ultimately, success in their academic endeavors. Moving forward, it is essential for educators to be aware of the diverse learning needs of their students and to create learning environments that nurture each individual's strengths. By doing so, we can enhance not only academic performance but also enrich the overall learning experience for all students.

## RECOMMENDATION

Based on the results of the study, the researchers have identified several practical steps to enhance instruction through learning styles among the grade 8 students, thereby improving their academic performance further,

To truly support students, it is important for them to embrace active learning strategies that resonate with their unique learning styles. For instance, visual learners might thrive by using diagrams and charts, while auditory learners could benefit from engaging in lively discussions. By becoming more self-aware of their learning preferences, students can seek out study methods and resources that enhance their academic performance. Additionally, forming study groups that bring together peers with different strengths can create a collaborative environment where everyone learns from one another.

Science teachers have a crucial role in this journey. By implementing differentiated instruction, they can cater to the diverse ways students learn. This could mean incorporating visuals, hands-on experiments, and auditory resources into their lessons, making learning more engaging for everyone. Participating in professional development workshops focused on understanding learning styles can significantly improve teaching practices. Regular formative assessments can also help teachers adjust their methods to better serve each individual student.

School administrators can make a meaningful impact by fostering an environment that supports teacher development in learning styles and differentiated instruction. Creating resource centers stuffed with materials tailored to various learning preferences will benefit both students and educators alike. It's equally important to encourage open communication between students and teachers, making it easier for students to express their needs and for teachers to offer personalized support.

For policymakers, there's a significant opportunity to advocate for educational policies that acknowledge and integrate learning styles into curriculum standards. By providing funding for research on how different learning styles affect academic performance, we can cultivate innovative educational practices. Additionally, promoting inclusive education policies ensures that every student, regardless of their learning preference, has access to a quality education.

Lastly, future researchers are encouraged to broaden their investigations into the long-term effects of personalized learning approaches across different subjects and age groups. Exploring how technology can accommodate diverse learning styles could open new pathways for engagement. Collaboration among disciplines—combining insights from psychology, education, and neuroscience—can lead to a richer understanding of how learning styles influence academic success. By embracing these recommendations, we can create a supportive and inclusive educational environment that nurtures every junior high school student, attributing both academic performance and personal growth.

## REFERENCES

1. *Alabi, M. (2024). The role of learning styles in effective teaching and learning. https://www.researchgate.net/publication/385177679_The_Role_of_Learning_Styles_in_Effective_Teaching_and_Learning*
2. *Al-khresheh, M. (2024). The role of presentation-based activities in enhancing speaking proficiency among Saudi EFL students: a quasi-experimental study. Acta Psychologica. 243. https://www.sciencedirect.com/science/article/pii/S0001691824000362*
3. *Brodowicz, M. (2024). Learning styles on teaching effectiveness and student outcomes. https://aithor.com/essay-examples/the-impact-of-understanding-different-learning-styles-on-teaching-effectiveness-and-student-outcomes*
4. *Business World (2024). Philippine students are in deep trouble. https://www.bworldonline.com/special-reports/2024/09/09/619447/philippine-students-are-in-deep-trouble/#google_vignette*
5. *Caga, N. (2017). A match or mismatch between learning and teaching styles in English first additional language classrooms. Journal of the Social Sciences. 53(3), pages 112-119. DOI:10.1080/09718923.2017.1416548*
6. *Darrow Schol (2024)., Types of learning styles: enhancing student success. https://www.darrowschool.org/admissions/admissions-blog?id=406447/types-of-learning-styles-enhancing-student-success*
7. *Delfino, A. (2019). Student engagement and academic performance of students of Partido State University. https://files.eric.ed.gov/fulltext/EJ1222588.pdf*
8. *Fundamentals First (2024). How learning styles impact academic success. https://fundamentalsfirst.ca/how-learning-styles-impact-academic-success/*

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 12| December 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

9. *Goyibova, N. et al. (2025). Differentiation approach in education: tailoring instruction for diverse learner needs. MethodsX. 14. https://www.sciencedirect.com/science/article/pii/S2215016125000111*
10. *John, S. and Donald, G. (2024). Impact of learning styles on academic performance. https://www.researchgate.net/publication/385896230_Impact_of_Learning_Styles_on_Academic_Performance_Authors_Praise_Peace_Grace_Donald*
11. *Latorre-Cosculluela, A. et al. (2022). Emotional well-being and social reinforcement as predictors of motivation and academic expectations. International Journal of Educational Research. 115. https://www.sciencedirect.com/science/article/pii/S0883035522001197*
12. *Magulod, G. Jr. (2019). Learning styles, study habits and academic performance of Filipino university students in applied science courses: implications for instruction. Journal of Technology and Science Education. 9(2), 184-198. https://doi.org/10.3926/jotse.504*
13. *Makhambetova, A. et al. (2021). Personalized learning strategy as a tool to improve academic performance and motivation of students. International journal of Web-Based learning and Teaching Pedagogies. 16(6), pages 1-17. DOI:10.4018/IJWLTT.286743*
14. *Munir, J. et al. (2023). The impact of socio-economic status on academic achievement. Journal of Social Sciences. 3(2), pages 695-705. https://www.researchgate.net/publication/371350334_The_Impact_of_Socio-economic_Status_on_Academic_Achievement*
15. *Munna, A. and Kalam, M. (2021). Impact of active learning strategy on the student engagement. GNOSI: An Interdisciplinary journal of Human Theory and Praxis. 4 (2). https://files.eric.ed.gov/fulltext/ED614302.pdf*
16. *Nhan, L. (2024). Enhancing teaching and learning through formative assessment. International Journal of Science and Management Studies. 7(3). https://www.ijsmsjournal.org/2024/volume-7%20issue-3/ijsms-v7i3p128.pdf*
17. *Olwan, S. (2025). The impact of learning styles on long-term educational outcomes: key insights and implications. https://learningmole.com/impact-of-learning-styles-long-term-education/*
18. *Ozan, C. and Kincal, R. (2018). The effects of formative assessment on academic achievement, attitudes toward the lesson, and self-regulation skills. Educational Sciences: Theory and Practice. 18(1), pages 85-118. DOI 10.12738/estp.2018.1.021*
19. *Raiyn, J. (2016). The role of visual learning in improving students' high-order thinking skills. Journal of Education and Practice. 7(24). https://files.eric.ed.gov/fulltext/EJ1112894.pdf*
20. *Ribosa, J. and Duran, D. (2022). Do students learn what they teach when generating teaching materials for others? A meta-analysis through the lens of learning by teaching. https://www.sciencedirect.com/science/article/pii/S1747938X22000446*
21. *Srem-Sai, M. et al. (2025). Modelling the associations between students' academic resilience, learning motivation, self-regulated learning and academic well-being in Ghana. Acta Psychologica. 258. https://www.sciencedirect.com/science/article/pii/S0001691825005918*
22. *Straub, E. (2025). Roundup on research: the myth of 'learning styles'. https://onlineteaching.umich.edu/articles/the-myth-of-learning-styles/*
23. *The Manila Times (2025). Effect of classroom overcrowding on students' academic and behavior. https://www.manilatimes.net/2025/11/25/opinion/editorial/effect-of-classroom-overcrowding-on-students-academics-and-behavior/2230325*
24. *Westedt, D. (2019). Use of formative assessment to structure flexible differentiated learning groups: a pathway to equity. https://scholarcommons.sc.edu/cgi/viewcontent.cgi?article=6621&context=etd*
25. *Wibowo, S. et al. (2025). The relevance of Vygotsky's constructivism learning theory with the differentiated learning primary schools. Journal of Education and Learning. 19(1), pp. 431-440. DOI: 10.11591/edulearn.v19i1.21197*