

## Teachers' and Pupils' Assessment on Learning Styles and Reading Performance

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**ABSTRACT:** This study was undertaken to determine the correlation and differences between teachers' assessment and pupils' perception on learning styles such as visual, auditory, solitary, kinesthetic, logical, verbal, and social, and their impact on reading performance. The study was conducted to forty-four (44) Grades 4 to 6 teachers and two hundred twenty-nine (229) Grade 6 pupils as actual respondents from Manolo Fortich District, Division of Bukidnon. The study employed a descriptive correlational and causal research designs with content analysis, which included a quantitative approach in collecting numerical data through a questionnaire. Mean and Standard Deviation, Pearson Product-Moment Correlation Coefficient, T-test, and Multiple Linear Regression Analysis were utilized to examine the variables. Results revealed that pupils' learning style as assessed by teachers and perceived by pupils' is high. Pupils' reading performance is at the Instructional level. Learning styles are significantly correlated to learners' reading performance. Significant differences are observed between teachers' and pupils' perceptions on their learning styles. Visual and auditory learning styles are significant predictors of reading performance. This means pupils' reading performance is influenced by their learning styles. Thus, teachers may employ instructional strategies aligned with the pupils' learning styles to effectively improve reading literacy.

**KEYWORDS:** assessment, learning styles, pupils' performance, reading performance, teachers' assessment

### I. INTRODUCTION

Learning styles refer to how learners absorb, process, and remember the lessons they are taught. Every learner thinks differently and comes from a diverse educational background. Each learner is unique and has a distinct learning style that allows them to comprehend the information, eventually leading to good academic performance. They learn through hands-on experiences such as touching, moving, and doing. They also pick up on what they hear and see. With these different learning styles, the teacher must give the learner the right activity suited to his learning needs so that he can succeed in class.

The ability to adjust their teaching methodology in a manner appropriate to the different learning styles of their learners has been one of the difficulties faced by teachers at all times. In teaching and learning processes, all learning styles have to be accommodated. When the teacher's topic is inappropriate for the learner's learning needs, the learners have a harder time learning. To meet the diversity of learners' learning styles, teachers are urged to work on a range of teaching methods. The contemporary educational environment no longer allows for a one-size-fits-all approach (Chetty et al., 2019).

Additionally, learners are distinct people because they each have a different learning style. Learners' preferred learning styles reflect their aptitudes, environments, and prior educational experiences. Depending on the learning capacities of the learners, they absorb the material in another way. If the learners are aware of their learning style, they will learn extremely fast and ultimately do extremely well in their own work since they know their own strengths and weaknesses. According to this viewpoint, teachers are supposed to help every learner understand their learning references (Pineda, 2021).

Then, the majority of learners should be reached in a particular class, and all learners should be allowed to learn in a variety of ways, according to teachers. Understanding and experimenting with each person's preferred learning style is crucial. Analyzing one's learning preferences can be very advantageous to the learner because it will help them become a more focused and attentive learner, which will ultimately boost academic performance. The learner will be able to identify his or her specific strengths and limitations and learn from them once they become aware of this learning style (Nja et al., 2019).

However, the researcher has observed that some learners cannot directly understand the lesson being taught, especially when the teacher uses only one method of teaching. This is because learners have a variety of learning styles. Some of these learners may be good at hearing, while others may learn by seeing things that are presented during the lesson. Some learners are

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also good at moving or doing. With these differences, it becomes a challenge for the teachers to adopt strategies to accommodate each learner's needs. Failure to accommodate a learner's learning needs may lead to poor academic performance. This simply means that teachers must teach learners in ways that they can easily learn. Perhaps another reason for the pupils' struggles is their ability to read or their reading performance.

Reading performance is considered to be a cornerstone for every pupil, as it allows them to generate connections and uncover new learning experiences as they go through transitions in their growth and development, and it also helps them become ready to be responsible problem solvers and decision-makers. Therefore, the ability to read is just as important as mastering the skills that will last a lifetime, which are abilities that everyone should be able to acquire to deal with the demands of life.

A significant number of researchers consider reading abilities to be an essential component that contributes to academic brilliance. Reading abilities in school can serve as a stepping stone to any academic endeavor that is effective. In light of this, researchers and educators need to comprehend that every child, regardless of whether he or she is gifted, average, typical, or below his or her level of development, must be taught in his or her unique way. Reading and learning are two of the most important academic achievements. Alternatively, if a single child possesses proper studying skills, he or she is capable of performing well in academics as well as in any other circumstance (Roell, 2019).

Furthermore, it is possible to declare with absolute certainty that reading is the fundamental component of the majority of learning. When it comes to education, the written word is the foundation for every topic, including home economics, physics, and even Mathematics. The amount of reading that student is expected to do often increases as they progress through their education and into more challenging subject areas. Instead of becoming more complicated, the difficulty just increases as it progresses. If a student's reading comprehension is weak, it is quite probable that the student's performance in other areas would be negatively impacted.

Thus, the main objective of this study was to find out the significant relationship between learning styles and pupils' reading performance. It is believed that teachers would discover effective strategies to raise pupils' reading and even academic performance by studying the individuals' learning styles. This also attempted to close the gap in studies that closely examine how each learning style affects pupils' reading achievement.

The study was anchored on the theory of Howard Gardner's multiple intelligence, which claims that a learner has independent ways of processing information (Werrell, 2021). These multiple intelligences consist of the ability to utilize words, numbers, images, and music and also consist of the value of social relationships, physical activity, and an environmental sensitivity (Alley et al., 2023).

Gardner's theory of multiple intelligence suggested that learners possess a variety of intelligences rather than just one. He makes the notion that while everyone possesses various intelligences, some are more prominent in different persons. Thus, to design the best learning style for each learner, teachers must take into account the learners' level of intelligence because they learn more effectively when information is presented in a manner that matches their favored method of acquiring and processing information. Every learner has a special learning style that influences not only how he learns but also his level of focus and how he interprets the lessons' information.

## II. METHODOLOGY

The researcher employed a descriptive correlational and causal research designs with content analysis, as this is considered the most appropriate for the study. It involved the description, analysis, and interpretation of conditions in a particular problem (Calunsag, 2024).

This method mainly focused on determining the relationship between learning styles and pupils' reading performance. The respondents answered the adapted Multimodal Learning Styles questionnaire to gather, analyze, and interpret data on identifying the relationships between and among the variables.

The study used the descriptive research correlational research design with content analysis because it involved description, analysis, and interpretation of data to be gathered which described the significant relationship between learning styles and pupils' reading performance.

Descriptive statistics such as Mean and Standard Deviation were used to describe the variables of the study, specifically in Problem 1. Descriptive statistics such as Frequency, Percentage, Mean, and Standard Deviation were used to describe the variables of the study specifically in Problem 2. The Pearson Product Moment Correlation Coefficient was used in Problem 3, while T-test for Problem 4. And, Multiple Linear Regression analysis was utilized in the last problem.

## III. RESULTS AND DISCUSSION

Table 1 shows the test correlation between learning styles and reading performance. The independent variables are the pupils' learning styles, which are visual, auditory, solitary, kinesthetic, logical, verbal, and social. Moreover, the pupils' reading performance is based on their PHIL-IRI assessment.

Visual learning style shows a low positive correlation with an r-value of 0.429 and a p-value of 0.002. The data imply the rejecting the null hypothesis, for it appears to have a significant relationship with the pupils' reading performance. This indicates that pupils who prefer visual aids, such as diagrams and charts, perform better in reading tasks. These pupils prefer to learn and practice reading through seeing the things by their eyes rather than through imagination. According to Ferrell (2019), the most commonly used learning styles appear to be visual. His hypothesis was supported by the data on visuals as the most commonly used learning style in the elementary school classroom. This is because most pupils need to be able to see what they are doing to focus their attention on or touch to help make an abstract concept easier to comprehend.

Auditory learning style also shows a low positive correlation with an r-value of 0.482 and a p-value of 0.002. The data imply rejecting the null hypothesis, for it appears to have a significant relationship with the pupils' reading performance. This indicates that pupils who gain from listening and conversation do better in reading. Listening improves comprehension and memory. According to Lister et al. (2022), auditory learners benefit from vocal instructions or reading aloud. They sometimes study together and in the same manner so that they will not distract each other.

**Table 1.**

***Test of Correlation Between Learning Styles and Reading Performance***

| Variable    | r-value | p-value | Level of Correlation            | Decision  | Interpretation  |
|-------------|---------|---------|---------------------------------|-----------|-----------------|
| Visual      | 0.429   | 0.002   | Low Positive Correlation        | Reject Ho | Significant     |
| Auditory    | 0.482   | 0.002   | Low Positive Correlation        | Reject Ho | Significant     |
| Solitary    | 0.127   | 0.891   | Negligible Positive Correlation | Accept Ho | Not Significant |
| Kinesthetic | 0.144   | 0.188   | Negligible Positive Correlation | Accept Ho | Not Significant |
| Logical     | 0.511   | 0.001   | Moderate Positive Correlation   | Reject Ho | Significant     |
| Verbal      | 0.538   | 0.001   | Moderate Positive Correlation   | Reject Ho | Significant     |
| Social      | 0.492   | 0.001   | Low Positive Correlation        | Reject Ho | Significant     |

**Note:** 0.91 - 1.00 Very High Positive Correlation 0.71 – 0.90 High Positive Correlation  
0.51 – 0.70 Moderate Positive Correlation 0.31 – 0.50 Low Positive Correlation  
0.00 – 0.30 Negligible Positive Correlation Significant when computed p-value <0.05

Solitary learning style shows a negligible positive correlation with an r-value of 0.127 and a p-value of 0.891. The data imply that accepting the null hypothesis, for it appears to have no significant relationship with the pupils' reading performance, meaning that learners who prefer studying alone do not significantly correlate with improved reading performance.

According to Isma (2020), solitary learning style is those learners' who appreciate some quiet time for themselves and their ideas in studying alone. They are usually conscious of their thoughts and feelings as a result. Because they take the time to consider their achievements and aspirations, they frequently have high levels of motivation. Studying alone is a peaceful and comfortable setting but sometimes it also makes them struggle as they do not have companion to ask for when they are in confusion.

Kinesthetic learning style also shows a negligible positive correlation with an R-value of 0.144 and a p-value of 0.188. The data implies accepting the null hypothesis, for it appears to have no significant relationship with the pupils' reading performance. This suggests that reading which demands mental activity rather than physical contact, may be difficult for hands-on learners. This type of learners prefers learning by doing than just by setting and listening. Static activities like reading, kinesthetic learners do better on dynamic, movement-based tasks (Garcia et al., 2024).

Logical learning style shows a moderate positive correlation with an R-value of 0.511 and a p-value of 0.001. The data imply that rejecting the null hypothesis, for it appears to have a significant relationship with the pupils' reading performance. This demonstrates how well readers who favor methodical, analytical, and organized techniques perform. This type of learners prefers to exercise their mental abilities allowing them to have better knowledge acquisition and even mental recall on previous lessons. Kolb's (2014) experiential learning theory, which demonstrated that abstract and logical thinking improves knowledge in challenging tasks like reading comprehension, supported the idea that logical learners prefer reasoning and pattern recognition.

Verbal learning style shows the strongest moderate positive correlation with an r-value of 0.538 and a p-value of 0.001. The data imply that rejecting the null hypothesis, for it appears to have a significant relationship with the pupils' reading

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performance. Reading, writing, and verbal communication are all beneficial to verbal learners and are inherently link to reading proficiency. According to Clements (2022), verbal learners do exceptionally well in literacy-based activities because they are able to understand and express textual information using language and words.

Lastly, social learning style shows a low positive correlation with an R-value of 0.492 and a p-value of 0.001. The data imply that rejecting the null hypothesis, for it appears to have a significant relationship with the pupils' reading performance. This suggests that students who do well in interactive or group environments typically do better on reading assignments. Research by Garcia et al. (2024) has demonstrated that collaborative learning techniques, such as group activities and peer discussions, enhance understanding.

Reading performance was generally most strongly correlated with verbal and logical learning styles, whereas visual, auditory, and social learning styles showed significant but low positive correlations. Kinesthetic and solitary techniques, on the other hand, showed negligible correlations, highlighting their limited impact on pupils' reading performance.

Table 2 presents the test difference between teachers' and learners' perceptions of learning style, showing significant and non-significant findings across various variables. The visual learning style yielded a t-value of 5.398 and a p-value of 0.001, indicating a significant difference between the teachers' and learners' perceptions of learning styles. The data imply that rejecting the null hypothesis, for it appears to be significant.

The auditory learning style also showed a significant difference (t-value = 4.824, p = 0.001). This implies differences in how teachers and students view the importance of speaking and listening techniques in the learning process. According to Cavite and Gonzaga (2023), auditory learning—which involves spoken information and discussions—is very beneficial for some students, but it might not always be in line with teachers' teaching strategies.

**Table 2.**

### *Test of Difference of Teachers' and Learners' Perceptions of Learning Styles*

| Variable     | t-value            | p-value     | Decision        | Interpretation  |
|--------------|--------------------|-------------|-----------------|-----------------|
| Visual       | 5.398              | 0.001       | Reject Ho       | Significant     |
| Auditory     | 4.824              | 0.001       | Reject Ho       | Significant     |
| Solitary     | 0.117              | 0.143       | Accept Ho       | Not Significant |
| Kinesthetic  | 0.208              | 0.547       | Accept Ho       | Not Significant |
| Logical      | 6.932              | 0.001       | Reject Ho       | Significant     |
| Verbal       | 5.399              | 0.001       | Reject Ho       | Significant     |
| Social       | 4.922              | 0.001       | Reject Ho       | Significant     |
| <b>Note:</b> | <i>Significant</i> | <i>when</i> | <i>computed</i> | <i>p-value</i>  |
|              |                    |             |                 | <i>&lt;0.05</i> |

In contrast, the solitary learning style (t-value = 0.117, p = 0.143) and the kinesthetic learning style (t-value = 0.208, p = 0.547) showed no significant differences. This suggests that kinesthetic (hands-on) and solitary (independent) learning styles are seen similarly by teachers and students. According to Gargallo et al. (2023), solitary learning is frequently given less priority in schools, which may account for the views that support it. Similar to this, both parties may equally acknowledge that kinesthetic learners frequently develop in physical, activity-based learning contexts.

The logical learning style showed the greatest t-value (6.932) and p-value (0.001). This reveals a significant difference in how teachers and pupils perceive logical techniques like problem-solving and analytical thinking.

Additionally, there was a significant difference in the verbal learning style (t-value = 5.399, p = 0.001), suggesting that learners and teachers have different perspectives on the significance of language-based tactics. According to Banaruee et al. (2022), teachers may place too much or too little emphasis on verbal learners' strengths in reading and verbal expression, depending on their preferred methods of instruction.

Finally, a significant difference was found in the social learning style (t-value = 4.922, p = 0.001). Perceptions of collaborative and group-based learning techniques vary across educators and students. According to Gargallo et al. (2023), group interactions are very beneficial for social learners, although teachers might not always use collaborative teaching techniques widely. The results highlight significant differences in perceptions for visual, auditory, logical, verbal, and social learning styles, while no significant differences were observed for solitary and kinesthetic styles.

Table 3.

*Regression Analysis on Learners' Learning Style and Reading Performance*

| Variables   | UC           |                | SC                      |              | Sig. (P-value) | Decision         |
|-------------|--------------|----------------|-------------------------|--------------|----------------|------------------|
|             | B            | SE             | $\beta$                 | t-value      |                |                  |
| Constant    | 0.3938       | 0.5376         | 0.3987                  | 5.4986       | 0.001          |                  |
| Visual      | 0.6968       | 0.3948         | 0.6974                  | 7.6588       | 0.001          | Reject Ho        |
| Auditory    | 0.5484       | 0.3846         | 0.4457                  | 5.2753       | 0.002          | Reject Ho        |
| Solitary    | 0.1423       | 0.1615         | 0.2511                  | 0.4535       | 0.126          | Accept Ho        |
| Kinesthetic | 0.2655       | 0.1531         | 0.1782                  | 0.0821       | 0.238          | Accept Ho        |
| Logical     | 0.1657       | 0.1741         | 0.1467                  | 0.1124       | 0.182          | Accept Ho        |
| Verbal      | 0.1545       | 0.1513         | 0.1657                  | 0.1828       | 0.244          | Accept Ho        |
| Social      | 0.1435       | 0.1753         | 0.1668                  | 0.1124       | 0.183          | Accept Ho        |
| Model       | R            | R <sup>2</sup> | Adjusted R <sup>2</sup> | f-value      | Sig. (P-value) | Decision         |
|             | <b>0.409</b> | <b>0.383</b>   | <b>0.283</b>            | <b>7.815</b> | <b>0.001</b>   | <b>Reject Ho</b> |

**Note:** UC = Unstandardized Coefficients SC = Standardized Coefficients Dependent Variable = Reading Performance  
Significant when computed p-value < 0.05.

The regression analysis of reading performance and learning styles is displayed in Table 3, with both significant and non-significant factors highlighted. The total effect of the learning styles included in the analysis may account for around 38.3% of the variance towards reading performance while 61.7% accounts to other variables that were not part of the study. The substantial f-value of 7.815 ( $p = 0.001$ ) validates that the model is statistically significant in general, and the modified R<sup>2</sup> value of 0.283 strengthens this explanation by considering model complexity. With a standardized coefficient ( $\beta$ ) of 0.6974 and an unstandardized coefficient (UC) of 0.6968, visual learning style had the most impact on reading performance. A strong positive link is indicated by its high t-value (7.6588) and significant p-value of 0.001.

Auditory learning style also significantly impacts reading performance (UC = 0.5484,  $\beta = 0.4457$ ,  $p = 0.002$ ). This implies that strategies like reading aloud or participating in verbal learning activities might help auditory learners—who rely on listening, conversations, and verbal content—improve their reading skills. According to Lister et al. (2022), auditory methods, particularly in literacy-based contexts, enhance understanding by using listening to reinforce knowledge.

The solitary learning style ( $p = 0.126$ ) demonstrates a negligible contribution to reading performance. Reading performance is not substantially predicted by kinesthetic learning style ( $p = 0.238$ ). The cognitive demands of reading are not precisely aligned with the physical and hands-on things those kinesthetic learners thrive at. This is in line with the findings of Gargallo et al. (2023), who discovered that practical, non-verbal tasks are better suited for kinesthetic techniques.

Non-significant factors were verbal learning style ( $p = 0.244$ ) and logical learning style ( $p = 0.182$ ). In order to connect their analytical abilities to reading comprehension, logical learners—who favor methodical and analytical approaches—may need more assistance (Kolb, 2014). Similarly, although reading and language-based activities are important for verbal learners, this model's lack of importance raises the possibility that other factors may affect the results of their reading performance.

The lack of significance for social learning style ( $p = 0.183$ ) suggests that interactive or group-based learning strategies might not be the main factor influencing reading proficiency. For some students, group cooperation improves understanding, although its impact might not be significant enough to be noticeable in this situation (Gargallo et al., 2023).

As a whole, the regression analysis highlights the importance of visual and auditory learning styles in improving literacy outcomes by showing that they are important predictors of reading success. The fact that solitary, kinesthetic, logical, verbal, and social styles are not significant implies that, although useful in other situations, they might not have as much of an impact on reading ability. According to Fleming and Lister's research, this emphasizes how crucial it is to incorporate visual and auditory tactics into instructional procedures in order to accommodate dominant learning types.

#### IV. CONCLUSIONS

Based on the findings of this study, the following conclusions are formulated:

1. Teachers are able to address the learning preferences of the pupils.
2. Pupils still need to improve their reading performance from instructional to independent level.
3. The pupils' reading performance is dependent on their learning styles.
4. Teachers may have oversight in the pupils' solitary and kinesthetic learning styles.
5. Pupils showed more interest on interactive reading approach.

### V. RECOMMENDATIONS

Based on the findings and conclusion of the study, it is recommended that:

1. Teachers will maintain their strategies in addressing the pupils' learning styles.
2. Pupils may strive to be more motivated to improve their reading performance from instructional to independent level.
3. Teachers may utilize/employ the pupils' learning styles to improve their reading performance.
4. Teachers may consider all the pupils' learning styles to improve their reading performance.
5. Teachers may employ on digital reading approach to help pupils more engage in reading as another learning style in the 21<sup>st</sup> century.

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