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## RESEARCH ARTICLE / REVIEW ARTICLE

# Students' Reading Comprehension in Relation to Learning Style: A Case Study at SMA Insan Cendekia

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**Abstract:** This research aims to find out whether or not the use of the six thinking hats strategy improves the students' writing ability. The research was conducted to determine students' reading comprehension levels based on each learning style. This research is a qualitative descriptive method. The subject of this research were students of in second year student at SMA Insan Cendekia. The instruments used in this research were reading comprehension test, The VARK 8.0 questionnaire, and interview. The results of the reading comprehension test, the researcher used two level in reading comprehension. They are literal comprehension level and inferential comprehension level. The results showed that students with Visual learning style has a problem on inferential level, auditory learning style with inferential and literal level, read/write face a problem with inferential and literal, and kinesthetic learning style experiences problem both with literal and inferential level.

**Keywords:** Reading comprehension, learning style, case study.

## 1. Introduction

Reading comprehension is considered as one of the prominent English skills for learners. Reading comprehension is a fundamental skill that plays a pivotal role in students' academic success and overall cognitive development. It involves the ability to understand, interpret, and critically analyze written texts, thereby extracting meaningful information and insights. Proficient reading comprehension skills are not only essential for academic achievement but also for functioning effectively in various aspects of life, from daily communication to information processing. Reading is one of the essential language abilities in English and serves as a means of communication. Though reading, individuals can acquire valuable knowledge and information. Reading comprehension refers to the skill of understanding and making sense of written text. It involves the ability to decode words, understand their meanings, grasp the overall message of a passage, identify key details, and draw conclusions from the information presented. Some students may excel when visual aids are employed, while others might thrive in auditory or kinesthetic learning environments. McLaughlin (2012) mentioned that people learn differently. What works well for some students may not work for others.

## 2. Literature Review

As per Brown (2004), reading involves extracting meaning from texts to understand them, essentially serving as a means to gather information from written materials. This process encompasses two interconnected elements: recognizing words and comprehending their



meaning. It is appropriate with (McNamara, 2007), comprehension involves interpreting the information presented in the text, utilizing prior knowledge to understand this information, and ultimately forming a coherent mental representation of the text's content.

According to Klingner (2015), Understanding written text involves managing several intricate tasks like decoding words, utilizing vocabulary and general knowledge, and reading fluently to derive meaning. This implies that reading. Da Costa (2020) divides comprehension into three stages: understanding the text directly, making inferences, and critically evaluating the content. These stages represent different levels of depth in understanding a text, starting from the surface meaning to deeper analysis and interpretation.

a. Literal Comprehension

Literal comprehension is reading and comprehending text lines to identify details and the order of events. It is typically regarded as the most fundamental or entry-level comprehension skill. At this reading level, students are expected to be able to reproduce facts provided by the author, such as capturing the meaning of words, recalling concepts stated, summarizing ideas, remembering important ideas, and recognizing the sequence of events or information.

b. Inferential Comprehension

Inferential comprehension or interpretative comprehension at this reading level students are expected to work with textual meaning, observe various relationships in the text, make comparisons, draw conclusions, and generalize knowledge. It consists of informed reasoning such as determining the author's tone, purpose, attitude, conclusions of facts, and main ideas. According to Assiri & Siddiqui (2020), the ability to interpret written texts is paired with interpretive reading skills.

c. Critical Comprehension

According to Moon (2007), students who achieve this level or competency must be critical thinkers if critical thinking is clearly expressed in the higher education descriptor. Critical thinking examines and evaluates indications, identifies questions, and effectively applies knowledge to reach reasonable conclusions.

In the process of learning a language, each individual thinks, processes, and observes various information in different ways. As for Fardon (2013) and Moussa (2014) state learning styles as techniques or individual ways to manage and develop its understanding of the information being studied in the learning situation. Thus, it can be said that learning style is an individual's comfortable way of managing internal information situation and learning environment to develop their understanding of learned information. Learning style refers to the concept that individuals differ regarding what mode of instruction or study is most effective for them (Jaleel and Thomas, 2019).

Visual learners prefer learning through pictures, graphs, videos, and graphics but may struggle to take complete notes during presentations. Auditory learners, on the other hand, prefer learning through listening, such as by listening to spoken explanations, music, discussions, and verbal instructions. Individuals with read and write learning styles favor words and texts as their primary method of obtaining information. Kinesthetic learners, on the other hand, engage best with physical movement during their studies, preferring hands-on work, practical applications, projects, and real experiences (Chaudhry et al., 2020; Saran et al., 2015).

It is important to note that while people often have a dominant learning style, they also use a combination of styles depending on the context and task. Effective reading comprehension strategies can be adapted to accommodate various learning preferences. For example, visual learners might benefit from seeking out diagrams, charts, and infographics related to the text, while auditory learners could try reading the text aloud or finding audio

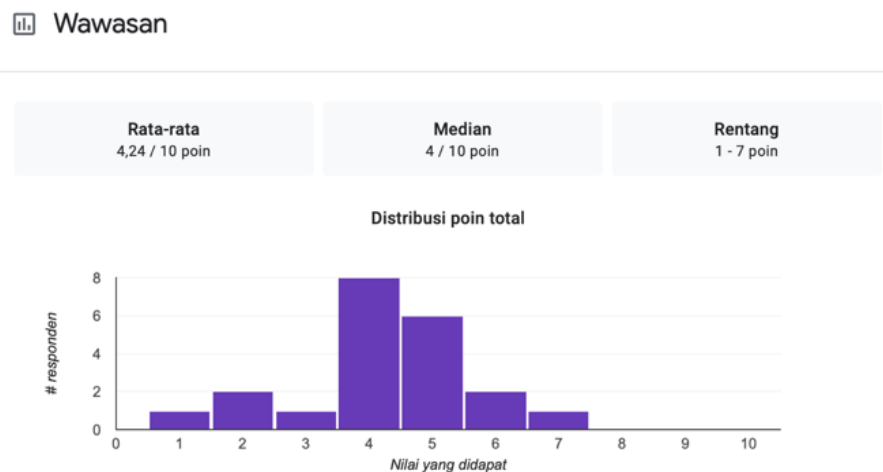
summaries. Adapting your approach to incorporate elements that align with your learning style can enhance your reading comprehension experience.

### 3. Research Method and Materials

The present research used qualitative method. Creswell (2014) explains that Qualitative research is a method used to explore and understand the meaning people or groups assign to social or human issues. The selected research methodology is a case study. The subject of the present research was students at SMA Insan Cendikia Syech Yusuf Gowa, specially in second year students. Researcher in collecting the data used three instruments those were reading test, questionnaire and interview. The researcher administered a VARK questionnaire version 8.01 (Fleeming, 1992) to identify students' learning styles. In analyzing the data the researcher used Miles, Huberman & Saldana (2014) model namely data collection, data reduction, data display, and conclusion.

### 4. Results and Discussion

There were 21 students who took the test given by the researcher. The results of the 10-item test given, the median is 4 point. So, it can be concluded that students still experience problem in reading comprehension. The data can be seen on Figure 1.



**Figure 1.** The score from the test

#### a. Visual Learning Style

Students who learn heavily towards visual learning often encounter challenges with inferential questions because of their preference for straightforward information. Their reliance on visual cues makes it challenging to dissect lengthy and intricate texts, hindering their ability to infer implied details. When confronted with such material, they may struggle to break it down into manageable portions, affecting their capacity to make accurate assumptions or draw inferences effectively. This difficulty arises from their inclination towards concise and direct information, which contrasts with the nuanced nature of inferential comprehension.

#### b. Auditory Learning Style

Students who possess an auditory learning style face a myriad of challenges when tackling both literal and inferential comprehension questions. Their heavy reliance on auditory stimuli makes it difficult for them to effectively process information presented in written or visual formats. Unlike visual learners, who excel in grasping information through sight, auditory learners thrive on orally conveyed content.

Consequently, when confronted with lengthy written passages, they may encounter difficulties in maintaining focus and engagement, leading to decreased comprehension.

Additionally, their reliance on auditory processing may overshadow their reading abilities, further impeding their comprehension of complex texts. The cognitive demand of deciphering written information coupled with the potential for distraction from lengthy texts exacerbates their struggles, highlighting the need for targeted support to enhance their comprehension skills across different modalities.

### c. Read/write

Students who predominantly learn through reading encounter challenges with inferential questions, often attributing their difficulties to the complexity of comprehending English texts as a foreign language. However, their struggles predominantly stem from errors in answering literal comprehension questions, primarily due to their restricted vocabulary. Despite perceiving inferential comprehension as arduous, their limited vocabulary impedes their ability to accurately grasp explicit details within the text, highlighting the need for vocabulary development to enhance their overall comprehension skills.

### d. Kinesthetics

Students with a kinesthetic learning style often face heightened difficulties with inferential questions. Interviews reveal their struggles with lengthy readings and occasional comprehension lapses due to limited vocabulary. Surprisingly, they tend to answer literal questions incorrectly more frequently, indicating challenges in understanding contextual meanings. This underscores the importance of vocabulary enrichment and contextual comprehension strategies to bolster their overall comprehension skills.

Here is the question about literal and inferential comprehension.

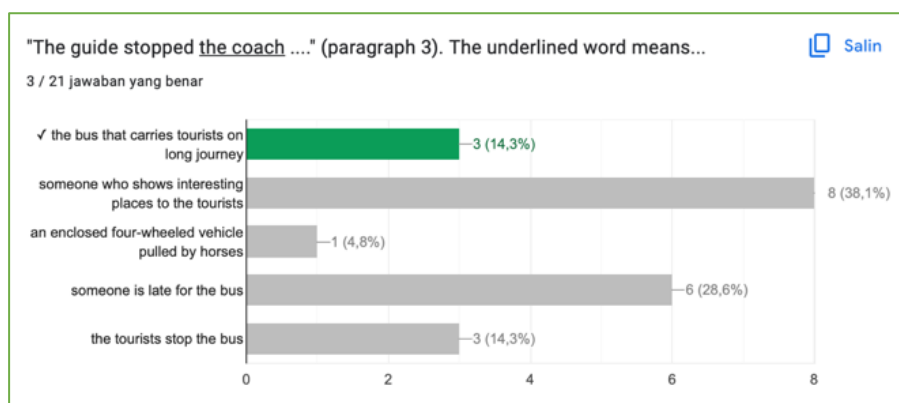
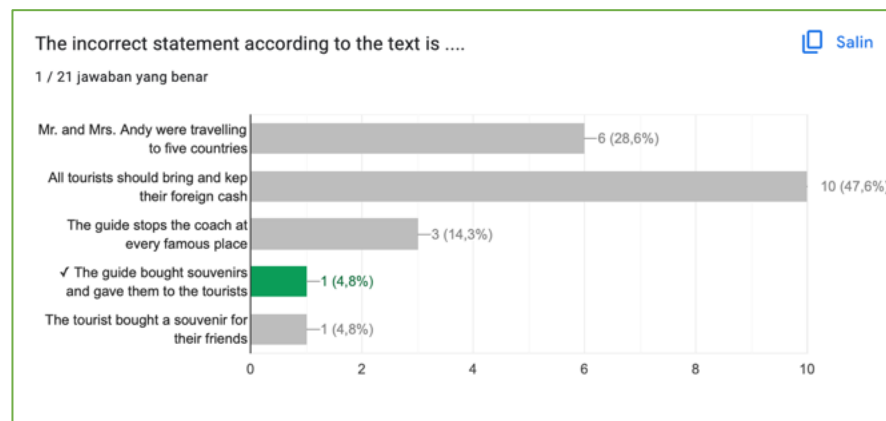


Figure 2. Literal Question

Based on the figure 2, it is found that the students experienced difficulties to find the meaning. The second problem is based on the question “The guide stopped the coach...(the underline word means...”. However, most of the students answer option “someone who shows interesting places to the tourists” although, the correct answer is “the bus that carries tourists on long journey”.

From the student's answer above, it is concluded that the student had difficulty understanding because they misunderstood the word "coach." The student assumed that the meaning of "coach" was a person, whereas in the context of the sentence, "coach" actually means "bus." The meaning of the word coach is better known as a person. That is why most of the students answer “someone who shows interesting places to the tourists” and “someone is late for the bus”. Many students also answer “the tourists stop the bus” because the answer have the same language structure. This indicates the need for a deeper understanding of word meanings in specific contexts to comprehend sentences correctly. From The test question is “what is the incorrect statement according to the text?”



**Figure 3.** Inferential Comprehension

Based on the figure 3, it is found that the most difficulties experienced by the students is finding specific detailed information from the text. Most of the students answer “all the tourists should bring and keep their foreign cash”. The answer from the question is “the guide bought souvenirs and gave them to the tourists”.

From the options, the answer “Mr and Mrs. Andy are travelling to five countries” is a correct statement because in the text Mr. and Mrs. Andy were travelling to Holland, Belgium, Germany, Switzerland and France. It can be seen in 1<sup>st</sup> paragraph. The next option is “All tourists should bring and keep their foreign cash” is correct because in the text the guide told the tourists to check their passports, traveller’s checks and their foreign cash. It can be seen in 2<sup>nd</sup>. The next option is “the guide stops the coach at every famous place”. The statement is correct it can be seen in 3<sup>rd</sup> paragraph. Last, the option “the tourists bought a souvenirs for their friends” is correct, it can be seen in last paragraph

**Figure 4.** Students’ learning style in SMA Insan Cendekia

| No. | Name                      | Students’ Learning style |   |   |    | Codes |
|-----|---------------------------|--------------------------|---|---|----|-------|
|     |                           | V                        | A | R | K  |       |
| 1.  | Alya Nursiti Fauziah A.   | 1                        | 5 | 8 | 2  | ANF   |
| 2.  | Andi Aini Liyana Raisa    | 2                        | 7 | 3 | 4  | AAL   |
| 3.  | Dwi Anggita Putri         | 8                        | 4 | 2 | 2  | DAP   |
| 4.  | Fahira Humaira            | 6                        | 4 | 3 | 5  | FH    |
| 5.  | Mayanda                   | 1                        | 7 | 2 | 6  | MM    |
| 6.  | Mohammad Rizky Pratama    | -                        | 3 | 2 | 11 | MRP   |
| 7.  | Muh. Akbar Maulana        | 1                        | 3 | 1 | 11 | MAM   |
| 8.  | Muh. Alghifari Syam       | 4                        | 2 | 3 | 7  | MAS   |
| 9.  | Marhaban Sah              | 2                        | 6 | 1 | 7  | MS    |
| 10. | Muhammad Ikramul Wildan   | 1                        | 9 | - | 6  | MIW   |
| 11. | Nadika                    | 8                        | 3 | 1 | 4  | NN    |
| 12. | Nurul Aulia Zahwa         | 5                        | 8 | 1 | 2  | NAZ   |
| 13. | Perli Yulianti            | 5                        | 1 | 7 | 3  | PY    |
| 14. | Putri Zaqiah              | 4                        | 3 | - | 9  | PZ    |
| 15. | Qirania Arianty Anastanya | 4                        | 4 | - | 8  | QAA   |
| 16. | Ramayani                  | 5                        | 8 | 1 | 2  | R     |
| 17. | Rifqa Tunnisa             | 7                        | 2 | 4 | 3  | RT    |
| 18. | Andi Nur Rezky            | 7                        | 2 | 1 | 6  | ANR   |
| 19. | Selvi Yanti               | 1                        | 4 | 3 | 8  | SY    |
| 20. | Sitti Nur Mulyah Adzhani  | 2                        | 2 | 4 | 8  | SNM   |
| 21. | Waldiansyah Rivaldi       | 4                        | 2 | 2 | 8  | WR    |

Based on the analysis of the provided data on Figure 4, it is evident that the class exhibited diversity in students' learning styles. Among the four observed learning styles visual, auditory, read/write, and kinesthetic there was a varied distribution among the students.

The kinesthetic learning style emerged as the dominant choice, with nearly half of the total students in the class identifying themselves as kinesthetic learners. This indicated that a learning approach centered around physical activities and direct experiences might have been more effective in aiding these students in understanding the learning materials.

Meanwhile, both visual and auditory learning styles were also adequately represented in the class, each by five students. This underscored the importance of considering various teaching methods involving visualization, such as using pictures, diagrams, or graphs, as well as auditory approaches like lectures, discussions, or audio recordings. Despite only two students identifying themselves as read/write learners, it was crucial to still provide suitable learning strategies for them, such as written notes, writing assignments, or reading activities.

Based on the research finding, students who prefer the read/write learning style typically excel in their studies due to their inclination towards reading. However, despite their strong reading skills, they often face challenges stemming from a limited vocabulary. This limitation can hinder their comprehension and expression of ideas, despite their overall academic proficiency.

The results from the questionnaire indicated that there were four learning styles utilized by the second-year students at SMA Insan Cendekia. This aligns with Fleming (2001) VARK theory, which identifies four learning styles: visual, auditory, read/write, and kinesthetic.

Based on Rujani (2019) it was concluded that there exists a weak correlation between an individual's learning style and their reading comprehension ability. This suggests that the method of learning has minimal influence on one's capacity to comprehend written material. However, within this research, significant differences were found among various learning styles regarding their difficulty in reading comprehension.

Reading comprehension is a multifaceted skill that encompasses various levels of understanding, among which are the literal and inferential levels. These levels pose distinct challenges for students, particularly in relation to their individual learning styles. Understanding these challenges is essential for educators to provide targeted support and enhance students' comprehension abilities.

One significant point of contention in reading comprehension lies in the distinction between literal and inferential comprehension. Literal comprehension involves grasping information directly stated in the text, while inferential comprehension requires readers to make connections, draw conclusions, and infer implied meanings from the text.

For students inclined towards visual learning, comprehension difficulties often arise, particularly with inferential questions. Visual learners rely heavily on their sense of sight to process information, preferring straightforward content that they can easily visualize. However, when confronted with longer and more complex passages, they may struggle to break down the text into manageable chunks and make inferences based on implicit details. This challenge stems from their tendency to prefer concrete information over abstract concepts, making inferential questions particularly daunting.

Conversely, students who favor auditory learning face obstacles with both literal and inferential comprehension questions. These learners thrive on auditory stimuli and prefer information presented orally rather than in written or visual formats. Consequently, when confronted with extensive written texts, auditory learners may struggle to maintain focus and engagement, leading to difficulties in comprehending both literal details and inferred meanings. Their reliance on auditory processing may hinder their ability to effectively decode written information, impacting their comprehension of complex texts.

Furthermore, students who adopt a reading-based approach to learning also encounter challenges with inferential questions, often attributing these difficulties to the complexities of English as a foreign language. While language barriers may play a role, their struggles predominantly stem from limitations in vocabulary rather than a lack of understanding of

the English language itself. Despite their proficiency in reading, these students may falter in answering literal comprehension questions, highlighting the importance of vocabulary development in enhancing overall comprehension skills.

Teacher must recognize the diverse needs and learning styles of students when addressing reading comprehension problem. Implementing strategies tailored to individual preferences, such as visual aids for visual learners and auditory exercises for auditory learners, can facilitate comprehension and promote academic success. Additionally, fostering vocabulary growth and providing ample opportunities for practice and reinforcement are crucial in overcoming comprehension challenges across all levels of understanding.

In conclusion, comprehension problem in reading often stem from a mismatch between students' learning styles and the demands of the text. By acknowledging the unique strengths and weaknesses associated with different learning modalities, teachers can effectively support students in navigating both literal and inferential levels of comprehension, ultimately fostering a deeper understanding of texts and promoting academic achievement.

## 5. Conclusion

Based on the findings of this research, it can be concluded that students with a visual learning style encounter problem in the inferential level, while those with an auditory learning style face challenges in both literal and inferential comprehension. Furthermore, students with a read/write learning style tend to answer questions in both inferential and literal levels, whereas kinesthetic learners also struggle in both comprehension levels. Therefore, it can be inferred that on average, all students still experience problem in reading comprehension across all levels, including both literal and inferential comprehension.

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