EXPLORING STUDENTS' READING ABILITY BASED ON THEIR STIFIN INTELLIGENCE MACHINE

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Abstract

Everyone has different intelligent machines and different learning styles. Often students also experience learning difficulties including difficulties in learning English especially in reading skills. They still needed tests intended to explore their reading abilities. In this regard, researchers use a stylus machine to explore a student's ability to read English learning. The research was intended to identify student difficulties in understanding text as well as reading abilities of student stifin intelligence machine. This research method employs a qualitative approach. The subject of this study is 37 students of the united Muslim university English study program between al washliyah teachings 2023/2024. Data collection in this study USES observation and interview techniques. Data obtained through multiple choice issues and essays. Research found were five types of students' reading skills, thinking (10 students), intuiting (4 students), feeling (8 students), and instinct (6 students). The most invented type of reading is intuitive, because it has a higher score on reading test. Intuitive types achieve best reading results, showing that students of this type are better able to understand and analyze the text in depth.

Keywords*: reading skills, students, stifin intelligence machine*

INTRODUCTION

In the era of globalization, English plays a crucial role as an international language in communication, education, and technology. One of the most important skills in learning English is reading, as it enables students to obtain information, develop knowledge, and improve other language skills such as writing and vocabulary.

However, many students still experience difficulties in reading comprehension. Common problems include limited vocabulary, lack of fluency, difficulty identifying main ideas, and low motivation in reading activities. These issues are often caused by inappropriate teaching methods that do not consider students' individual differences.

Each student has a unique learning style and intelligence. One approach to understanding these differences is the STIFIn concept, which classifies human intelligence into five types: Sensing (S), Thinking (T), Intuiting (I), Feeling (F), and Instinct (In). This concept is based on brain dominance and helps identify how individuals process information and learn effectively.

By understanding students' intelligence types, teachers can apply appropriate teaching strategies that suit students' characteristics. Therefore, this study focuses on exploring students' reading ability based on their STIFIn intelligence machine.

The research questions are:

1. What are the students' reading abilities based on their STIFIn intelligence types?
2. Which STIFIn type shows the best reading ability?

Literature Review

Reading is a fundamental skill in language learning, particularly in the context of English as a foreign language. It plays a crucial role in enabling students to access information, develop knowledge, and enhance other language skills. According to Fadillah et al. (2022), reading refers to a set of skills used to extract meaning from written texts. It involves not only recognizing words and sentences but also interpreting their meaning within a specific context. Similarly, Nurhaliza (2023) emphasizes that reading serves as a gateway for students to acquire knowledge in the educational process. Therefore, reading can be understood as a complex cognitive process that enables learners to comprehend written information and expand their academic competence.

In line with this, reading ability is defined as the cognitive capacity of students to understand ideas and information presented in a text. Tesilia (2019) explains that reading ability reflects students' potential to grasp meaning from written materials. Furthermore, Ardiansyah (2021) states that reading ability involves communication between the reader and the writer, where the reader actively constructs meaning from the text. This ability is closely related to other language skills, such as writing, listening, and speaking, indicating that reading is an integral component of overall language proficiency. Thus, developing students' reading ability is essential for achieving successful language learning outcomes.

Reading ability can be categorized into three levels: independent, instructional, and frustration levels (Giller & Temple, as cited in Ardiansyah, 2021). At the independent level, students can read and comprehend texts without assistance, demonstrating high fluency and understanding. At the instructional level, students require some guidance to fully understand the material, although comprehension remains relatively good. In contrast, the frustration level occurs when texts are too difficult, resulting in poor comprehension and decreased motivation. These levels highlight the importance of selecting appropriate reading materials that match students' abilities.

Moreover, reading comprehension consists of several key aspects. Sridharan and Said (2020) identify five main aspects: determining the main idea, identifying references, making inferences, understanding detailed information, and interpreting vocabulary. These aspects are essential for effective comprehension, as they help students analyze and interpret texts more accurately. Mastery of these components enables students to better understand the content and purpose of a reading passage.

To support reading comprehension, students need to apply appropriate reading strategies. Banditvilai (2020) suggests several effective strategies, including skimming, scanning, making predictions, and questioning. Skimming helps readers identify the main idea quickly, while scanning allows them to locate specific information. Making predictions encourages students to connect prior knowledge with new information, and questioning helps them monitor and deepen their understanding. The use of these strategies can significantly improve students' reading comprehension skills.

However, many students experience difficulties in reading comprehension. Westwood (as cited in Khildainy, 2023) identifies several contributing factors, including limited vocabulary knowledge, lack of reading fluency, insufficient background knowledge, ineffective use of reading strategies, and problems in processing information. These factors can hinder students' ability to understand texts and negatively affect their academic performance. Therefore, it is important for educators to address these challenges by implementing appropriate teaching methods.

One approach that can be used to support students' learning is the STIFIn concept. STIFIn, introduced by Poniman (as cited in Sabna, 2021), is a method that integrates theories from psychology, neuroscience, and human resource development to identify individuals' dominant intelligence. This method uses fingerprint scanning to determine the dominant brain system, which functions as an individual's "intelligence machine." The five types of intelligence in STIFIn

are Sensing, Thinking, Intuiting, Feeling, and Instinct. According to Cece (2022), this classification helps individuals understand their natural tendencies, strengths, and learning preferences.

The application of STIFIn in education offers several functions and benefits. Poniman (as cited in Utami, 2020) states that STIFIn can help identify students' learning styles, support the development of human resources, and assist in making appropriate career choices. Additionally, Siregar and Harahap (2021) highlight that STIFIn enables students to optimize their learning potential and allows teachers to design more effective instructional strategies. By aligning teaching methods with students' dominant intelligence, the learning process becomes more engaging and effective.

Furthermore, each STIFIn intelligence type is associated with a specific learning style. According to Muthohar and Fatmawati (2023), students with sensing intelligence prefer hands-on activities, while those with thinking intelligence rely on logical reasoning. Intuiting students tend to be creative and enjoy exploratory learning, whereas feeling students benefit from discussion-based approaches. Meanwhile, instinct-type students are more flexible and require a balanced learning environment. Understanding these differences allows teachers to provide more personalized instruction that meets students' individual needs.

Based on the explanations above, this study focuses on analyzing students' reading difficulties by applying the STIFIn approach to explore their reading ability. The conceptual framework of this research emphasizes the relationship between students' reading comprehension and their dominant intelligence type. By integrating STIFIn into reading instruction, it is expected that students' learning experiences and outcomes will improve.

Previous studies support the importance of effective strategies and innovative approaches in reading instruction. Prasetyo (2019) found that the GRASP strategy significantly improved students' reading comprehension. Rahman (2022) demonstrated that STIFIn is مرتبط with students' psychological factors, such as anxiety in communication. Additionally, Fakhrurrazi (2023) revealed that digital media, such as TikTok, can enhance students' interest in reading. These findings indicate that both instructional strategies and individual differences play important roles in improving reading comprehension.

In conclusion, reading ability is a crucial component of language learning that requires appropriate strategies and consideration of individual differences. The STIFIn approach provides a promising framework for understanding students' learning styles and addressing their reading difficulties, thereby contributing to more effective and personalized education.

The explanation can be drawn as follow :

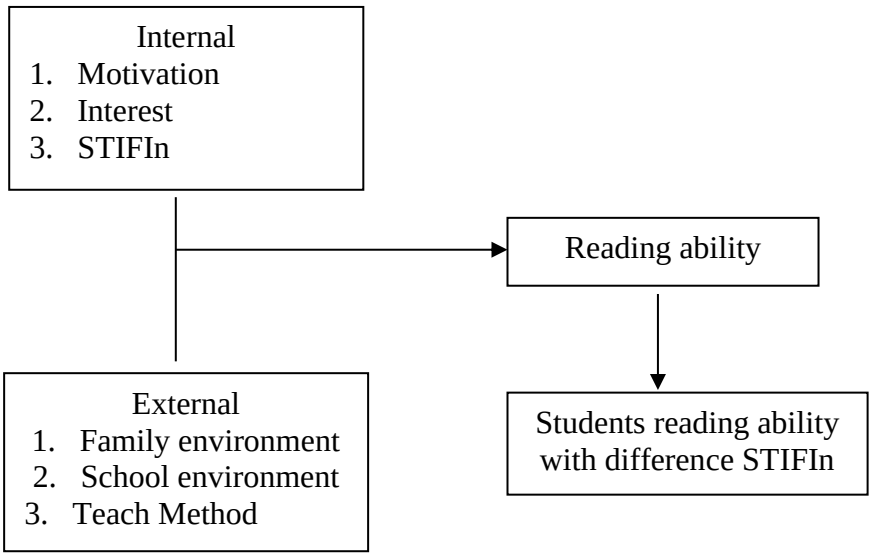

Figure 1. Conceptual Framework

METHOD

Research Design

This study employed a qualitative research design to explore students' perceptions in investigating their reading ability through the STIFIn intelligence machine. Qualitative research was chosen because it enables the researcher to gain a deeper understanding of participants' experiences, perspectives, and meanings within a specific context. As stated by Mishra and Alok (2022), qualitative research focuses on understanding complex phenomena through detailed and contextual analysis. Therefore, this approach is considered appropriate for examining how students perceive and respond to the use of STIFIn in reading activities.

Research Setting and Participants

The research was conducted at Universitas Muslim Nusantara Al Washliyah, located in Medan, North Sumatera, Indonesia. This study took place during the academic year of 2023/2024. The participants of this research were 38 students from the English Study Program. These participants were selected because they were directly involved in learning activities related to reading and the implementation of the STIFIn intelligence machine.

Research Instruments

This study utilized two main instruments: observation and interview. According to Nayak and Singh (2021), interviews are used to collect data by directly asking participants about their experiences and perceptions, while observation involves systematically observing participants' behavior in a natural setting.

The interview was used as the primary instrument to gather in-depth information regarding students' perceptions of using STIFIn in improving their reading ability. The interview questions were adapted from Khildainy (2023). Meanwhile, classroom observation was conducted to identify students' participation, engagement, and difficulties during reading activities.

Data Collection Techniques

The data in this study were collected through classroom observation and semi-structured interviews.

Classroom observation was conducted to identify students' difficulties in understanding reading texts. The researcher participated directly in classroom activities and followed several procedures: determining the observation schedule, preparing observation guidelines, conducting the observation, and recording important information based on the observation guide.

In addition, interviews were conducted to explore students' perceptions of the STIFIn intelligence machine. Through interviews, the researcher obtained detailed insights into students' experiences, opinions, and responses related to the implementation of STIFIn in reading activities.

Data Analysis Techniques

Data analysis in this study followed a qualitative descriptive approach. Mishra and Alok (2022) define data analysis as the process of systematically organizing and interpreting data obtained from interviews, field notes, and other sources so that the findings can be clearly understood and communicated. It involves reviewing, classifying, interpreting, and verifying data to produce meaningful conclusions with academic and scientific value.

After collecting the data, the researcher analyzed them descriptively to explain the phenomena observed in the study. This descriptive approach aims to present the actual conditions of the research context as they occur.

The process of data analysis consisted of four main steps:

a. Data Collection
At this stage, the researcher collected data through observation and interviews. All relevant information from field notes and interview results was gathered for further analysis.

b. Data Reduction
Data reduction involved summarizing, selecting, and focusing on the most important information. The researcher identified key themes and patterns in the data to simplify and organize the information. This step helped to make the data more manageable and meaningful.

c. Data Display
In this stage, the reduced data were organized and presented systematically. The data were displayed in an integrated form to allow the researcher to understand the overall findings and identify relationships among the data.

d. Conclusion Drawing
The final stage involved drawing conclusions based on the analyzed data. The conclusions were initially tentative and subject to change if insufficient evidence was found. However, if the conclusions were supported by consistent and valid data, they were considered credible and reliable.

RESULTS AND DISCUSSION

Results

The findings showed that students were categorized into five STIFIn types with the following average scores:

STIFIn Type	Average Score
Sensing	51
Thinking	48
Intuiting	82
Feeling	50
Instinct	52

The **Intuiting type** achieved the highest score (82), indicating strong reading ability. In contrast, the **Thinking type** had the lowest score (48).

Discussion

The results indicate that intelligence type significantly influences students' reading ability. Students with **Intuiting intelligence** tend to excel in reading because they are able to recognize patterns, make predictions, and understand texts deeply.

Students with **Sensing intelligence** show moderate ability, as they focus more on details rather than abstract meaning. Meanwhile, **Feeling type** students tend to connect emotionally with texts, which helps engagement but may limit analytical thinking.

The **Thinking type**, although logical, shows lower performance, possibly because reading comprehension requires not only logic but also interpretation and inference.

These findings suggest that teaching strategies should be adapted based on students' intelligence types. For example:

- Intuiting: creative and analytical tasks
- Sensing: detailed and factual texts
- Feeling: emotionally engaging materials
- Thinking: critical thinking exercises
- Instinct: integrative learning activities

CONCLUSION

This study concludes that students' reading ability varies based on their STIFIn intelligence type. The Intuiting type shows the best performance in reading comprehension, while the Thinking type shows the lowest.

Understanding students' intelligence types can help teachers design more effective teaching strategies, improve student engagement, and enhance learning outcomes.

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