

# Type Token Ratio Analysis in Descriptive Writing Essay Taught Using the Think Talk Write Strategy Applied at the Senior High School Level

Najma Zeta Zain<sup>1</sup>, Laily Nur Affini<sup>2</sup>, Siti Lestari<sup>3</sup>

<sup>1</sup> Universitas Persatuan Guru Republik Indonesia Semarang. e-mail: [najmazetaz@gmail.com](mailto:najmazetaz@gmail.com)\*

<sup>2</sup> Universitas Persatuan Guru Republik Indonesia Semarang. e-mail: [lailynuraffini@upgris.ac.id](mailto:lailynuraffini@upgris.ac.id)

<sup>3</sup> Universitas Persatuan Guru Republik Indonesia Semarang. e-mail: [lestarist1912@gmail.com](mailto:lestarist1912@gmail.com)

ARTICLE INFO	ABSTRACT		
<p><b>Keywords:</b>            type token ratio, descriptive writing, think talk write strategy, vocabulary</p>	<p>This study investigates the application of the Think Talk Write (TTW) strategy using picture prompts to enhance students' descriptive writing skills, with a focus on vocabulary richness. Conducted at SMA N 1 Mranggen, the research aimed to analyze the implementation of TTW in the classroom and assess students' lexical diversity using the Type Token Ratio (TTR) and frequency-based word levels (K1 and K2). Employing a mixed-methods design, qualitative data were collected through lesson plan analysis and classroom observations, while quantitative data were gathered from 15 student writing samples analyzed using the Lextutor VocabProfile tool <a href="https://www.lexutor.ca/vp/eng/">https://www.lexutor.ca/vp/eng/</a>. The findings revealed that the TTW strategy, especially the "Talk" phase, effectively fostered student engagement and vocabulary development. Quantitative results showed an average TTR of 0.6460, indicating moderate lexical diversity, while K1 word usage averaged 81.16%, reflecting heavy reliance on high-frequency vocabulary. K2 word usage averaged 7.83%, suggesting limited use of mid-frequency vocabulary. Overall, the integration of TTW with visual media supported students in generating ideas and constructing more coherent and detailed descriptive texts. However, their vocabulary range remained within foundational levels, highlighting the need for further instructional focus on expanding vocabulary. This study contributes to writing pedagogy by showcasing how structured, collaborative, and visually supported strategies can enrich vocabulary use and writing fluency.</p>		
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## 1. Introduction

Language is an essential tool for exchanging information. Recognizing its global significance, English is widely acknowledged as a crucial language for individuals to acquire as a second or

foreign language, a phenomenon observed within the Indonesian context as well Liando & Tatipang (2022). Mastering it in a written form is a necessary skill for learners, specifically in academic settings. Through writing, students can capture their ideas, showcase their learning progress, and develop their vocabulary and communication abilities Indarti (2021).

Aliyu (2020) states that excellent written communication is essential for academic success. Without good writing skills, students may struggle to communicate successfully. Many professional contexts, such as proposal writing, report generating, job applications, and corporate correspondence, require strong writing skills. Khazrouni (2019) lists various advantages of writing, including self-expression, increased communication, better thinking abilities, logical reasoning, self-reflection, feedback exchange, and academic and professional preparation.

The ability to write in English is demonstrated not only through grammar but also through the variety of vocabulary used. Djiwandono (2016) English vocabulary is divided into several categories: high-frequency words, which appear frequently in various types of discourse, and low-frequency words, which appear infrequently across all texts. The former is divided into three levels: 1000 words, 2000 words, and 5000 words. To achieve fluent comprehension of language, one must recognize at least 2000 of the most common terms Morris & Cobb (2004)

Various characteristics distinguish a good-quality academic essay. In addition to coherence, logical connection, and grammatical precision, a few researchers highlight the worth of lexical variety or the usage of multiple vocabulary items Malvern & Richards (2012). Indicators that can be used to assess this aspect are the Type Token Ratio (TTR) and vocabulary lists based on frequency levels, such as the 1000 and 2000-word levels.

Type-token ratio (TTR) measures the diversity of a text's vocabulary by comparing the quantity of distinct words (types) to the overall word count (tokens) in a text. The larger the TTR, the more diverse the vocabulary in the writing.

On the other hand, 1000 and 2000-word levels are a collection of common words that are considered to be necessary for mastering English. These words are commonly used in everyday life and general literature P. Nation & Coxhead (2014)

Effective written communication is paramount for student success in the context of English as a Foreign Language (EFL). Students must strive to produce not only grammatically correct and coherent text but also demonstrate a rich and varied vocabulary to effectively convey their ideas and create engaging descriptive pieces Djiwandono (2016).

Nevertheless, many students struggle with the writing process, facing challenges such as idea generation, information organization, vocabulary and grammar use, and coherent expression.

Moreover, the challenges are not solely rooted in the students' abilities but are also influenced by the teaching strategies employed. Therefore, educators must implement effective strategies to help students overcome these obstacles and improve their writing skills Prestika (2023). Teachers often face difficulty selecting and applying instructional strategies that effectively address these student challenges. As a result, the lack of an appropriate teaching approach can exacerbate the problems students face when learning to write.

Descriptive text is one of the essential text types that senior high school students in the tenth grade are required to understand as part of their curriculum. This type of text serves a social function by enabling students to describe specific persons, places, animals, or objects. Through practicing the writing of descriptive texts, students are expected to develop their ability to express meaningful ideas and write coherent short essays in this format.

The significance of this issue became evident during a classroom observation conducted by the researcher as part of teacher training at SMA N 1 Mranggen. The observation revealed that students experienced considerable difficulties in practicing descriptive writing. Specifically, they struggled with generating ideas due to limited vocabulary knowledge and were uncertain about constructing grammatically correct English sentences. Furthermore, a lack of motivation to learn English was prevalent among students, likely attributed to their infrequent practice of the language. These challenges underscore the necessity of addressing both instructional strategies and student engagement to improve their proficiency in descriptive writing.

Among the strategies, Think-Talk-Write (TTW) has received attention due to its focus on a collaborative and sequential learning process. As outlined by Yamin & Ansari (2008), this cooperative learning method involves structuring students into groups of three to five individuals. The process begins with individual reflection and critical thinking as students analyze the assigned material, carefully assessing and understanding the information (Think). Subsequently, students engage in group discussions to share insights and deepen their comprehension of the subject (Talk). Finally, Students combine their discoveries and insights into an in-depth summary, successfully communicating their findings and reflections through writing (Write).

Pictures serve as a valuable medium in the learning process and can be utilized as an effective tool to enhance writing skills. Their presence goes beyond merely providing entertainment; images play a significant role in education by acting as a powerful medium for conveying ideas and facilitating communication with others Chicho & Zrary (2024). The researcher was drawn to visual media as a promising tool for assisting students in writing. By providing visual stimuli, the researcher expected to inspire students to actively seek and utilize appropriate vocabulary to describe what they see.

The TTW technique using pictures can be considered a communicative learning approach that aims to structure ideas before writing. Through fostering active engagement and dialogue among students, this pedagogical approach not only cultivates their critical thinking skills but also offers a conducive environment for them to experiment with and refine their ideas before write them down.

By engaging in collaborative learning activities, students are empowered to develop their critical thinking skills, construct a better understanding of complex concepts, enrich their vocabulary, and significantly enhance their ability to articulate their thoughts in writing. This process not only promotes intellectual growth but also prepares students for the demands of academic and professional pursuits Prestika (2023).

While previous studies have highlighted the benefits of the TTW strategy and visual media, limited research has focused on their combined on lexical diversity and vocabulary usage in

descriptive writing. Additionally, few studies have employed the TTR and word level as specific metrics for evaluating writing proficiency.

This study aims to address these gaps by investigating the TTW strategy, enhanced by visual media, on students' Type Token Ratio (TTR) as an indicator of lexical diversity, along with an analysis of the use of K1 and K2 level words, representing the most frequent 2,000 words in English.

### **Research Questions:**

1. How was the teaching procedure applied in the classroom using the Think Talk Write strategy?
2. What are the minimum, maximum, and mean values of the Type Token Ratio (TTR) in students' descriptive texts?
3. What are the minimum, maximum, and mean values of K1 level words in students' descriptive texts?
4. What are the minimum, maximum, and mean values of K2 level words in students' descriptive texts?

## **2. Literature Review**

### **2.1 Writing**

Acquiring writing skills in English is a fundamental and crucial aspect of education for both teachers and learners. Unlike inherent abilities, the capacity for effective written communication is an acquired skill that can be cultivated through focused and efficient instruction. This underscores the importance of dedicated pedagogical approaches within the educational setting to ensure students develop this essential competency. According to Chicho & Zrany (2024), writing is a fundamental human activity that transcends mere transcription. It serves as a crucial means of expressing and communicating individual thoughts, attitudes, and opinions. Writing involves the skillful selection and arrangement of language to convey meaning effectively.

As pointed out by Chicho & Zrany (2022) writing serves as a powerful means of expressing individual thoughts and emotions, facilitated through the nuanced use of language. Writing can be understood as the artful arrangement of symbols or signs into coherent text, requiring the writer to carefully select and organize words to convey meaning effectively.

Furthermore, Chicho & Zrany (2024) emphasize that writing is not merely a talent; it requires dedicated learning and practice. To effectively communicate their ideas to readers, writers must cultivate a range of skills, including careful thought, deliberate word choice, and the ability to organize their thoughts coherently.

As indicated by Indarti (2021), writing tasks serve as a crucial assessment tool in English language learning, providing valuable insights into students' overall language proficiency. Through writing, educators can evaluate a student's ability to effectively communicate ideas in a coherent and organized manner, demonstrate their command of vocabulary, and ultimately, showcase their overall English language learning progress. As asserted by LAUFER & NATION (1995), the quality of an essay is significantly influenced by its lexical

richness. This involves not only the acquisition of new vocabulary but also the skillful application and integration of previously learned vocabulary within the written text.

## **2.2 Descriptive Text**

Descriptive text, as defined by Gerot & Wignell (1994) and Knapp & Watkins (2005), is a genre of writing that aims to provide a vivid and detailed representation of a particular person, place, object, animal, or event. This process involves carefully selecting and organizing descriptive details, such as names, classifications, attributes, behaviors, and functions, to create a clear and compelling image in the mind of the reader, enabling them to vicariously experience the subject matter as if they were observing it directly Noprianto (2017).

Descriptive text, as outlined by scholars such as Derewianka (1990), Gerot & Wignell (1994), Knapp & Watkins (2005), exhibits a distinct structural framework. This framework typically includes two key components: identification and description. The identification phase introduces and defines the specific subject of the text, which can encompass a person, place, object, animal, or event. Subsequently, the descriptive phase delves into the subject's characteristics, appearances, personality, habits, and functions.

## **2.3 Think Talk Write Strategy**

Huinker & Laughlin (1996) introduced the Think-Talk-Write strategy, a pedagogical approach designed to nurture both oral and written language development in students. This framework recognizes that effective communication begins with careful thought and reflection. By encouraging students to first consider their ideas individually, then discuss them with their peers, and finally translate those thoughts into written form, the Think-Talk-Write strategy provides a structured and supportive environment for students to refine their ideas, develop their voice, and ultimately, express themselves more effectively in writing.

Iru & Arihi (2012) highlight that the Think-Talk-Write model focuses on an organized approach to learning that prioritizes careful planning and execution of learning activities. This model encourages students to engage in a three-step process: first, thoughtfully consider and analyze the learning objectives; second, actively exchange ideas and perspectives with their peers through discussions; and finally, synthesize these shared understandings in writing.

Similarly, Miftahul (2016) characterizes Think-Talk-Write as a cooperative learning model that fosters critical thinking and collaborative discourse. By engaging in this process, students are provided with the opportunity to explore and refine their ideas thoroughly before translating them into written expression.

This learning style, subsequently called "independent learning in groups," empowers students to take ownership of their learning by fostering collaborative inquiry and independent exploration within a group setting Chicho & Zrary (2024).

## **2.4 Pictures**

Images or pictures are used as prompts to inspire creativity, facilitate idea generation, and enhance descriptive language in writing tasks Chicho & Zrary (2022). In descriptive writing, pictures are particularly beneficial as they assist students in producing elaborate and vivid descriptions. They serve as concrete references for their ideas, enabling writers to observe and articulate specific details, emotions, or atmospheres conveyed by the image. This visual

aid can significantly reduce writer's block and encourage a more nuanced and sensory-rich narrative

## 2.5 Lexical Measurement

One of the commonly applied methods for assessing lexical richness is the type-token ratio (TTR), as outlined by Van Gijssel et al. (2008). This metric assesses how diverse a text's vocabulary is by looking at the proportion of different word forms (types) compared to the total number of words (tokens) present in it.

In the field of applied linguistics, K1 and K2 words are categorized based on their frequency of occurrence within large linguistic corpora, such as the British National Corpus (BNC). In vocabulary studies related to English language learning, the first 2,000 most frequently used words in English are typically categorized into two groups: the first 1,000 words (K1) and the second 1,000 words (K2). These categories originate from corpus-based research by (P. Nation & Coxhead, 2014). The K1 list consists of the most basic words that appear consistently in both spoken and written English, including common function and content words like *talk*, *soft*, and *suggest*. These words are essential for general comprehension, as they account for a significant portion of everyday English usage. The K2 list specifically ranges from the 1001st to the 2000th most common words, serving as a crucial level above K1 by significantly expanding vocabulary for broader comprehension and more nuanced expression across various contexts. Examples of K2 words include *discuss*, *delicate*, and *encourage*.

## 2.5 Lextutor VocabProfile in Lexical Analysis

Lextutor <https://www.lextutor.ca/>, a well-established online platform developed by Tom Cobb, serves to analyze the lexical richness of students' writing. Lextutor offers a range of corpus-based analytical tools for vocabulary profiling, one of which is the Vocabulary Profiler (VocabProfile). This tool is widely used in applied linguistics to examine how frequently used vocabulary appears in a given text, categorized by levels such as K1, K2, the Academic Word List (AWL), and Off-List Words.

## 3. Research Methodology

### 3.1 Research Design

This study employs a mixed-methods approach, combining both qualitative and quantitative designs to provide a comprehensive understanding of the research problem. According to J. W. Creswell & Creswell (2017) a mixed-method approach is suitable when both qualitative insights and numerical data are needed to answer research questions comprehensively. The qualitative design is specifically utilized to explore the teaching procedure when implementing the Think Talk Write (TTW) strategy using pictures in the classroom. Qualitative research is appropriate for studies that aim to explore, describe, and interpret phenomena in a natural setting J. W. Creswell & Creswell (2017). The quantitative design is employed to analyze students' descriptive texts in terms of lexical richness through the Type Token Ratio (TTR) and vocabulary levels (K1 and K2 words).

### 3.2 Participants

The research involved 35 students from Class X-5 at SMA N 1 Mranggen. 15 descriptive texts were selected as the sample using purposive sampling, based on the completeness and clarity

of their descriptive texts. As stated by Fraenkel et al. (2012) purposive sampling is an effective method when specific criteria need to be met to achieve research goals.

### 3.3 Instruments

Data were collected through the teaching procedure and students' descriptive texts. The Lextutor VocabProfile tool was used to analyze TTR, K1, and K2 word usage.

### 3.4 Data Analysis Procedures

The teaching procedure was analyzed using descriptive qualitative analysis. This method involves analyzing and interpreting non-numerical data such as lesson plans and classroom events, to generate meaningful descriptions of teaching and learning processes. According to Merriam & Tisdell (2015), descriptive qualitative research aims to present a complete summary of an event. Quantitative data were processed using SPSS 21 to calculate the minimum, maximum, and mean values of TTR, K1, and K2 scores. To answer the second, third, and fourth research questions, which involved lexical analysis of students' descriptive texts, a quantitative descriptive statistical approach was used. Descriptive statistics is a branch of quantitative research used to describe and summarize the main features of a dataset, often through measures such as mean, minimum, and maximum J. Creswell (2011).

## 4. Findings

### 4.1. The Teaching Procedure of the Think Talk Write (TTW) Strategy Using Pictures

The first research question aimed to describe how the Think Talk Write (TTW) strategy using pictures was applied in the classroom. Based on the lesson plan document, the teaching procedure followed a structured approach, divided into opening, main activity (Think, Talk, Write), and closing stages, conducted within a 2 x 45-minute timeframe.

Table 1: Teaching Procedure

Stage	Activities	Time 2 x 45 minutes	Notes
Opening	Greeting  Checking attendance  Apperception: Show a picture of a famous person and ask students what they know about the person.	5 minutes	Picture media
Main Activity (Think-Talk-Write Strategy)	Introducing the Think-Talk-Write Strategy (5 minutes): The teacher explains the three steps clearly  <b>Think</b> (15 minutes)  The teacher gives different pictures of people to each group. Students observe the picture and think individually about how to describe the person.  <b>Talk</b> (20 minutes)  Students discuss their ideas in groups. Students add or revise their notes.  <b>Write</b> (35 minutes)	75 minutes	Grouped in 7 (5 students per group)  Pictures  Paper

	Each student writes a descriptive paragraph based on their discussion.		
	The teacher monitors and provides help with vocabulary and grammar.		
	Students exchange their writing with a partner for peer feedback.		
Closing	Some students present their text.  The teacher provides oral feedback, highlighting descriptive language, good use of sensory details, and positive aspects of their writing  Reflection and reinforcement of key vocabulary and grammar used in descriptive text.	10 minutes	Oral feedback

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The lesson began with an Opening session that included greetings, attendance checking, and apperception. The teacher displayed a picture of a well-known person and asked students to describe the person's appearance or what they knew about them. This initial activity immediately drew the students' attention and served as a warm-up for the main task. Students appeared curious and actively responded to the teacher's questions, showing early signs of engagement.

The main activity followed the Think–Talk–Write (TTW) strategy and was conducted over a span of seventy minutes. During the "Think" phase, students were arranged into seven groups of five, consistent with the collaborative nature of TTW. Each group received different pictures of people. Individually, students were instructed to observe the picture and think critically about how to describe the person's physical features, clothing, hobby, and possible personality traits. During this phase, students worked silently and focused, jotting down key adjectives and nouns based on their observations. Although some students seemed hesitant at first, the presence of the visual prompt appeared to help them generate initial ideas.

Subsequently, the lesson entered the Talk phase, where students engaged in group discussions. In this phase, students engaged in collaborative discussions, sharing their individually generated ideas and collectively refining them into more developed descriptions. The classroom atmosphere became highly interactive; students were observed actively discussing vocabulary choices, asking questions, and even debating which adjectives best matched the characteristics of the person in their picture. They exchanged notes, made revisions, and supported each other in selecting accurate and expressive language. This stage reflected the essence of the 'Talk' phase in the Think Talk Write model, as it encouraged students to deepen their comprehension, negotiate meaning, and broaden perspectives through peer interaction. Through this collaborative dialogue, students enhanced their descriptive content and also practiced critical thinking and vocabulary application in a meaningful context.

In the final phase, students were tasked with writing a descriptive paragraph based on the ideas they had discussed in their groups. Each student composed their own text, while the teacher circulated around the classroom, providing guidance on grammar and vocabulary

when needed. This phase showed varied levels of engagement. Some students wrote quickly and confidently, while others took more time, often referring back to their notes and consulting peers or the teacher. After completing their drafts, students were encouraged to exchange their writing with a partner for peer feedback, which further promoted reflection and vocabulary awareness. This final stage helped consolidate what students had learned, reinforcing both their descriptive writing skills and their ability to apply vocabulary in context.

The lesson concluded with a Closing session, during which a few volunteers read their paragraphs aloud to the class. The teacher provided oral feedback, highlighting effective vocabulary use and grammatical accuracy. Students listened attentively and responded positively to the feedback, suggesting that they felt encouraged and supported in the learning environment.

The procedure observed demonstrates a practical application of the TTW strategy, enhanced by visual aids, aiming to structure the writing process and address common student difficulties like idea generation and vocabulary.

#### 4.2. Lexical Analysis of Students' Descriptive Texts

Quantitative data were gathered from 15 purposively selected student texts using Lextutor VocabProfile and analyzed with SPSS Version 21 to determine the Type Token Ratio (TTR) and the percentage of K1 and K2 words. Table 1 shows the scores of TTR, K1, and K2.

**Table 2:** Score of students (15 samples)

NO	TTR	K1	K2
1	0.64	86.90	3.57
2	0.77	83.65	7.69
3	0.60	83.33	7.22
4	0.65	79.75	8.86
5	0.67	78.72	9.22
6	0.61	81.82	9.85
7	0.64	87.88	7.07
8	0.71	82.02	8.99
9	0.71	74.16	7.87
10	0.53	86.00	2.00
11	0.56	85.86	6.06
12	0.57	82.83	7.07
13	0.76	66.34	13.86
14	0.65	76.92	7.69
15	0.62	81.30	10.57

#### 4.2.1 Type Token Ratio (TTR)

TTR measures lexical diversity by comparing unique words (types) to the total words (tokens). A higher TTR means the student used a more varied vocabulary; a lower TTR may indicate repetition or limited word choice. The findings were as follows:

**Table 3.** Descriptive Statistics of TTR

	N	Minimum	Maximum	Mean
TTR	15	.53	.77	.6460
Valid N (listwise)	15			

Based on the analysis of the 15 students' descriptive texts, the minimum TTR value observed was 0.53, indicating that at least one text exhibited a relatively lower lexical diversity, with a higher proportion of repeated words. On the other hand, the maximum TTR value reached 0.77, suggesting that some students demonstrated richer and more varied vocabulary in their compositions. The mean TTR across all samples was 0.6460. It gives an overall indication of the group's performance in terms of word richness.

##### a. K1-Level Word Usage

K1 refers to the first 1,000 most frequent English words. These form the core vocabulary for beginner-to-intermediate language users.

**Table 4.** Descriptive Statistics of K1

	N	Minimum	Maximum	Mean
K1	15	63.34	87.88	81.1653
Valid N (listwise)	15			

The analysis of the 15 students' descriptive texts revealed, the lowest percentage of K1 words is 63.34%. In contrast, the highest K1 percentage found is 87.88%. The average K1 usage across all samples was 81.16%. This means that, on average, over 80% of the words in the students' descriptive texts came from the most common 1000 words. This percentage suggests a strong dependence on foundational vocabulary.

##### b. K2-Level Word Usage

K2 includes the second 1,000 most frequent words in English and represents an expansion into mid-frequency vocabulary that supports more precise and nuanced writing.

**Table 1.** Descriptive Statistics of K2

	N	Minimum	Maximum	Mean
K2	15	2.00	13.86	7.8393
Valid N (listwise)	15			

The minimum percentage found was 2.00%, suggesting that some students were still heavily reliant on K1 vocabulary and have lacked exposure in using mid-frequency vocabulary. However, the maximum K2 percentage was 13.86%, indicating that some students incorporated a wider range of vocabulary. On average, students used K2 words for 7.83% of their vocabulary in descriptive texts. This average shows their collective use of mid-frequency words.

## **5. Discussion**

### **5. 1. The Teaching Procedure of the Think-Talk-Write Strategy Using Pictures**

The implementation of the TTW strategy in the classroom followed a sequential process: Think, Talk, and Write, each playing a distinct role in supporting student learning. During the Think phase, students individually observed pictures and noted relevant vocabulary. This initial step utilized the pictures as an effective stimulus, actively prompting students to recall and activate relevant vocabulary words, and also guiding the initial development of their content by providing a visual focus.

The Talk phase fostered active collaboration as students discussed and refined ideas with peers. This stage was particularly dynamic and engaging, as the peer interaction encouraged students to refine their initial thoughts, negotiate meaning, and broaden their perspectives through dialogue. The discussions during this phase resulted in more structured and enriched content.

In the Write phase, students constructed descriptive paragraphs, integrating their prior observations and collaborative input.

The Think-Talk-Write Strategy was clearly implemented, guiding students from individual idea generation to collaborative discussion and finally to written expression. This aligns with Huinker & Laughlin (1996) and Miftahul (2016), who emphasized TTW as a cooperative model that promotes deep learning through discussion and reflection.

The use of pictures as prompts, as highlighted by Chicho & Zrany (2024), proved valuable in inspiring creativity and facilitating idea generation, directly addressing the challenge students often face with limited vocabulary knowledge and uncertainty in constructing sentences.

The "Talk" stage is considered the most active part within the Think-Talk-Write (TTW) strategy. This stage proved crucial in fostering peer engagement, enabling students to refine their ideas, negotiate meaning, and broaden their perspectives. Prestika (2023) and Rahmawati & Ulya (2024) emphasized the value of dialogue during this phase, underscoring how interaction among peers contributes to students' cognitive development and writing fluency. Supporting this, Rahmawati and Ulya (2024) found that all 22 students in their study (100% of participants) enjoyed peer discussions and agreed that such collaboration made it easier to develop and express ideas in writing. These converging findings highlight the critical role of collaborative interaction in enhancing student confidence and enriching the content of their written work.

### **5.2. Students' Lexical Diversity (TTR)**

The average TTR among student texts was 0.6460. This suggests that while many students relied on commonly used words, they also made efforts to incorporate a varied vocabulary. Such diversity reflects a developing stage of lexical maturity, where students are transitioning from repetition toward more precise and differentiated word use. This finding is consistent with Williamson (2009), who noted that written texts typically show higher TTRs than spoken language, written texts have TTR of around 71%, while spoken texts around 51%. The mean TTR in this study is 64.6% which falls within the expected range for written language in second-language contexts. This supports the idea that the TTW strategy, supported by visual media, encouraged students to explore and use diverse vocabulary in their writing, likely through the processes of idea generation, peer discussion, and independent expression. Compared to advanced academic writing such as that studied by Djiwandono (2016), where lecturers demonstrated higher TTR than university students, the current results reflect early-stage development appropriate for high school learners.

### **5.3. Use of K1 Vocabulary**

Students' writing demonstrated heavy reliance on K1 vocabulary (mean = 81.16%), consistent with high-frequency language use. This indicates a focus on clarity and familiarity in word choice. The use of K1 vocabulary suggests that students prioritized communication over stylistic complexity. Nation (2001) noted that high-frequency words typically cover between 75% and 85% of student writing. The mean K1 usage found in this study was 81.16%, those students writing falls within the category. This finding shows that students used accessible and foundational vocabulary in constructing their texts, which is appropriate for learners at the senior high school level, especially when focusing on clarity and accuracy in writing.

### **5.4. Use of K2**

The mean K2 usage was 7.83%, with a minimum of 2.00% and a maximum of 13.86%. These numbers clearly indicate a low level of K2 word usage in students' descriptive writing. The relatively low use of K2 indicates limited exposure to more sophisticated vocabulary. This suggests that students still relied heavily on basic (K1) words. Compared to findings by Djiwandono (2016), who reported a mean K2 score of 83.008 among university students, the gap is substantial. This contrast highlights a clear difference in lexical maturity, indicating that high school students, particularly at the tenth-grade level, are still in the early stages of expanding their vocabulary range.

## **6. Conclusion**

This study concludes that the integration of the Think Talk Write (TTW) strategy with picture prompts serves as an approach to support students' descriptive writing, particularly in developing lexical diversity. The structured sequence of individual thinking, peer discussion, and writing enabled students to engage more deeply with content, refine their vocabulary, and express ideas more confidently. While students exhibited moderate lexical richness, their writing remained heavily reliant on high-frequency vocabulary, indicating that vocabulary development is still in progress. This highlights the need for sustained instructional support and targeted vocabulary enrichment. By incorporating both collaborative pedagogy and visual stimuli, the study offers a valuable contribution to writing instruction in EFL contexts and demonstrates how lexical profiling tools like Lextutor can inform vocabulary-focused

teaching practices. Future investigations are encouraged to explore this model across broader populations, varied genres, and over longer durations to better understand its potential impact on academic language development.

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