



Grammatical and Lexical Density in Narrator Text Writing with Online Learning Platforms

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Abstract

The study on grammatical and lexical density in narrator texts aims to assess the level of grammatical and lexical density in these texts and evaluate the effectiveness of online learning platforms in influencing these linguistic features. The analysis revealed an average lexical density of 55.10% across the examined texts, which is above Ure's 40% threshold for written texts but still categorized as less dense for academic writing standards. The narrator texts exhibited characteristics between spoken and written language, aligning with Halliday's theory. The findings indicate that while students demonstrate basic proficiency in writing narrator texts, there is significant room for improvement in using richer and more complex language. The study concludes by emphasizing the need for specialized training and greater focus on developing writing skills within the animation curriculum, particularly in enhancing lexical density and narrative effectiveness. This research contributes to understanding the linguistic complexity of narrator texts in the context of online learning and provides insights for improving writing instruction in animation education.

Keywords: *Investigate; Grammatical; Lexical Density; Content Words; Narrator Text*

Introduction

In Indonesia, English is the first foreign language taught at all levels of education. The teaching of English as a non-productive vocational subject in SMK is implemented on the basis of the curriculum is issued in the Perubahan tentang Keputusan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi No.56/ M //2022 tentang Pedoman Penerapan Kurikulum Dalam Rangka Pemulihan Pembelajaran. It is stated that, the Ministry of National Education does not provide an English syllabus, the authority to design syllabus is left in entirely to each local education organized to develop syllabus according to the situation and conditions of each individual institution. (Lista et.al, 2008; Muflikah, 2010). This policy has a positive impact on the schools that organize the program, especially for SMKs that focus on vocational materials and the latest learning models.

In addition, the integration of technology in education has changed the ways of learning and teaching. For instance, online learning has become the new norm that requires students to adapt quickly. This change does not only affects teaching methods, but also the ways students generate and process

information. The production of the narrator text of the as an important form of linguistic expression is one of the skills that requires the involvement of the online learning media such as blogger.com. In particular, grammatical and lexical density in narrator texts can provide valuable insights into students' linguistic complexity and language ability.

The use of the online learning challenges the writer to select and function appropriate lexical and grammatical items to represent meanings in the text. The quality of the content of the text is greatly dependent on the 'number' of the lexical items being used in the text. The ways the lexical and grammatical items are employed in the narrator text is important to study as they are building the density of the content of the text.

The analysis of the grammatical and lexical density in the narrator text is done with the principles that it is essential to identify the level of the lexical and grammatical density in the text. Furthermore, the effectiveness of the online learning flatworms to the use of lexical and grammatical items to establish meaning in the text is also important to scrutinize. The hypothesis behind this study is the more the lexical items in a text, the better the quality of the content of the text.

Text Development

Text or reading is language that is functional, i.e. language that us doing some job in some context (Halliday & Hasan, 1989: 10). In such understanding, text is always related to context situation and context of culture. Context situation is the social and situational environment at the time the text is produced. The context of this situation has components of *field*, event or occurrence, *tenor*, i.e. who participates in the interaction with language, and *mode*, i.e. how the message is communicated. These three components are then known as message or ideational meaning, interpersonal meaning, and textual meaning. Textual meaning is known through system transitivity and hence a clause functions as an event representation. Interpersonal meaning is known through the Mood, Modality and appraisal systems and hence a clause functions as a means of interaction. While textual meaning is known through the theme-rhyme system and hence a clause functions as a means of conveying a message.

The context of culture is a context related to the value system and includes ways of doing, ways of being, and ways of saying (Halliday & Hasan, 1989: 99). It includes ways of doing, ways of being, and ways of saying (Halliday & Hasan, 1989: 99), which is the highest order context that overshadows the formation of the text and its situational context. Both contexts are then known as extra textual features that can make a text different from other texts (Miller, 2004).

Narrator-type texts are usually developed on the basis of narrative genre writing. The Narrative genre is the main basis for narrator texts; the narrative genre involves telling a story in chronological order and involves characters, plot and setting.

Lexical density is defined as the proportion of lexical words to the total number of words in a text. It refers to a statistical measure that quantifies the lexical density of a text and can be used to assess students' progress in learning a language. Texts with lower lexical density are easier to understand. In general, written texts have higher lexical density than spoken texts because written texts have a higher proportion of content words than spoken texts (Stubbs, 2002; Johansson, 2008; To et al., 2013); Ure, 1971 in Johansson, 2008). Therefore, written text can be more dense with information.

Halliday, M.A.K. (1985) argues that written and spoken language have different characteristics. Narrator texts, which often fall between spoken and written language, may combine elements of both, there are several points that may be relevant, including: (1) Written language tends to have a higher lexical density than spoken language. (2) Spoken language is often more dynamic and interactive, while written language is more static and planned. (3) Narrator texts may combine the clarity and structure of written

language with some of the direct and personal aspects of spoken language. Some previous studies are related to lexical density in writing, especially in writing English learning texts. Hermawati et.al, (2018), in their research showed that lexical density in the introduction of thesis written by English graduate students was categorized as less dense. In almost all of the specified components, the text written does not apply the characteristics of good academic writing, as it should. The average level of students' writing ability indicates that the lexical density category of their texts is in the less dense category. In summary, it can be said that English graduate students still have limited knowledge of language use in writing academic texts, therefore, it is recommended to provide the topic of lexical density in academic writing courses in the syllabus of English study programs in higher education. According to Refnaldi (2015: 27-33) in his research shows that in general, students' abstracts still rarely use lexical density, their abstracts are still dominated by the use of grammatical complexity and written in oral mode. This shows that lexical density in students' academic writing is still low. The use of grammatical metaphors, especially nominalization, is still limited. As a result, their writing is more likely to be spoken language transferred into written form.

Text narrator or text narration is a tool that has various important functions in the modern digital world. It can also improve the comprehension of complex texts by providing the right intonation and emphasis, and help in foreign language learning. Text narrator has various important functions in modern technology. In the context of education, text narrators have been shown to improve comprehension and retention of information for learners. According to a study published in the Journal of Special Education Technology (Smith et al., 2018), the use of text narrators increased reading comprehension by 23% in students with learning difficulties. In the field of accessibility, the World Wide Web Consortium (W3C) recommends the use of text narrators as one of the important components in creating inclusive web content (W3C Web Accessibility Initiative, 2021). In the e-learning industry, a report from Global Market Insights (2020) shows that the integration of text narrators in online learning platforms has increased user engagement by 35%. Meanwhile, in the business context, a survey conducted by the American Management Association (Johnson, 2019) revealed that 67% of executives reported increased productivity after adopting text narrators to convert long reports into audio formats.

Lexical Density

Lexical density is linguistically related to the *content word*. As it is known that according to its function, English vocabulary can be categorized into *content word* and *function word*. *Content word* has meaning and referent, while *function word* has *function* in the formation of English grammar, Halliday, M.A.K. (1985).

Lexical density is the proportion of lexical items (content words) to the total discourse, and can be calculated by finding the ratio between lexical items and total running words or higher grammatical units, namely clauses. Lexical density has a representative reflective function of a written text and is therefore less active and less spontaneous than spoken language, which tends to be language in action.

Ure, (1971) introduced the concept of lexical density as a method to distinguish text types. He defined lexical density as the proportion of lexical words (nouns, verbs, adjectives and some adverbs) to total words in a text. Ure found that written texts tend to have higher lexical density compared to spoken texts, with a threshold value of around 40%.

Grammatical Density

Language is used to communicate orally and in writing. Written language tends to be interpreted as a language that has a density of vocabulary, while spoken language often tends to have a complex sentence structure (Halliday, 2005). A good text should be written by paying attention to whether the reading material is originally written language or spoken language. Written language texts should not be written like spoken language texts or vice versa. In spoken language, phrases often do not seem to end.

The phrase seems to continue with a clause that is not immediately broken. This condition is called Grammatical Intricacy because the text has high *interdependency*, and should not dominate the written language text.

Research Method

In the current study, this research used the lexical density test method. This method involves calculating the ratio between the number of lexical elements (words with specific meanings) and the overall number of words in a discourse. The lexical density assessment serves as a valuable tool in assessing whether the content found in the narrator's text is inferior to the lexical elements (Laufer, 2005).

Within the scope of this study, narrator texts written by vocational students majoring in animation were subjected to robust analysis. This assessment includes a comprehensive content analysis, complemented by the application of the formula refined by Ure (1971). Through the incorporation of this analytical approach, this study aims to analyze and measure the level of grammatical and lexical density in narrator texts written by vocational students majoring in animation through online learning platforms, ultimately contributing to a deeper understanding of their pedagogical potential for foreign language learning.

Data Collection

The data collection technique is by taking narrator texts on online learning platforms. The theory of Lexical and Grammatical Density developed by Halliday (2005) is used to calculate and explain the index of Lexical and Grammatical Density.

Ure's Lexical Density formula stands as a valuable tool in the realm of text analysis. It provides a structured approach to gauging the presence of words with distinct and specific meanings within a given text. This formula places particular emphasis on lexical words, encompassing nouns, verbs, adjectives, and adverbs, which form the core components of a text's semantic content.

Total Lexical Item

Lexical Density = ----- x 100

Total Words in Text

The lexical density formula is an appropriate way to measure the level of lexical complexity in a text. This knowledge allows a clear understanding of whether the text is properly designed for language lessons at a certain proficiency level, it serves as an effective starting element in educational materials and linguistic analysis.

Analysis

Table 1: lexical density Level

Paragraph	Total Words	Lexical Words	Lexical Density
1	31	16	51.61%
2	11	6	54.55%
3	23	13	56.52%
4	18	11	61.11%
5	43	12	51.16%

Key observations:

1. The lexical density across all paragraphs ranges from 51.16% to 61.11%, indicating a relatively consistent and moderately high lexical density throughout the text.
2. Paragraph 4 has the highest lexical density at 61.11%, suggesting it contains the most concentrated information relative to its length.
3. Paragraphs 1 and 5 have the lowest lexical densities (51.61% and 51.16% respectively). This is common in storytelling, where these sections often include more functional words to set the scene or wrap up the narrative.
4. Paragraphs 2 and 3, which describe the action of the story, have slightly higher lexical densities (54.55% and 56.52%), indicating a more content-rich narrative in these sections.

Explanation

One upon a time in Lombok, there was a kingdom named Kuripan. The king of Kuripan was very wise. She had a beautiful daughter, Princess Mandalika. Many princes wanted to marry her.

Lexical words: 16 (Lombok, kingdom, Kuripan, king, wise, beautiful, daughter, Princess, Mandalika, princes, wanted, marry) Lexical density: $16/31 = 51.61\%$.

On the day of the competition, the princes started to shoot their arrows.

Total words: 11 Lexical words: 6 (day, competition, princes, started, shoot, arrows) Lexical density: $6/11 = 54.55\%$

All of them did the arrow shooting perfectly. The king found it difficult to choose the best one. Therefore, the prince began to fight and kill each other.

Total words: 23 Lexical words: 13 (arrow, shooting, perfectly, king, found, difficult, choose, best, princes, began, fight, kill) Lexical density: $13/23 = 56.52\%$

Princess Mandalika died in the south sea of Lombok. The king and the princes were so sad. They felt guilty and stopped fighting.

Total words: 18 Lexical words: 11 (Princess, Mandalika, died, south, sea, Lombok, king, princes, sad, felt, guilty) Lexical density: $11/18 = 61.11\%$

Until now, one day in every year, usually in February and March, people go to the south sea of Lombok. On that day, a gear number of worms come out from the sea. People come these worms 'nyale'. It is believed that those 'nyales' are princess Mandalika's.

Total words: 43 Lexical words: 22 (day, year, February, March, people, go, south, sea, Lombok, day, gear, number, worms, come, sea, people, come, worm, nyale, believed, nyales, princess) Lexical density: $22/43 = 51.16\%$

Finding and Discussion**1. Lexical Density of the Text**

Based on the data analysis, Lexical Density in the narrator text has an average of 55.10% from the calculation results of 51.61%, 56.52%, 61.11%, 51.16%, which can generally be categorized as

medium to high. This shows that the text is quite rich in information content, with a good balance between lexical and grammatical words. According to Ure (1971), written texts tend to have a higher lexical density compared to spoken texts, with a threshold value of around 55.10%. In this context, the student narrators' texts are above this threshold, but can still be categorized as less dense for academic written text standards.

Characteristics of Narrator Texts: The analyzed narrator texts show characteristics that fall between spoken and written language, in accordance with Halliday's (1985) opinion. It has a clear structure but retains the direct and personal aspects of spoken language, which is suitable for animated narration.

Comparison with Previous Research: This result is in line with the findings of Hermawati et al. (2018) and Refnaldi (2015) which show that students still have limitations in writing academic texts with high lexical density. Although the context of this study is different (animated narrator text vs. academic text).

2. Grammatical Density of Narrator Text

As described in the theoretical basis used in this study, grammatical density can be calculated by comparing the number of clauses with the number of sentences in the text, because then the taxis index or interdependency of each clause will be known. Each clause is tested for its logico-semantic relation so that it can be seen easily whether there is interdependency in each clause.

There is no exact measure that states the tolerance level of the grammatical and lexical density index. What needs to be understood is that the Lexical Density index is obtained from the ratio between the number of content words and the grammatical density. If the Lexical Density index range is 55.10 then the number of content words is half the number of grammatical words. Content quality is largely determined by lexical so that the more lexical items in the text, the better the quality of the text. With a Lexical Density index of 55.10, it means that the texts in the narrator texts studied have a relatively easy vocabulary and tend to use vocabulary as in spoken texts.

Tabel 2: Overall Lexical Density of the Narrator Text

Content Words	Total Words	Lexical Density	Category
68	111	55.10%	High Density

Text narrators written by students have higher lexical density than grammatical density, that is means that most of the word content consists of meaningful words that can make it easier for students to understand the learning.

Conclusion

Analysis of the lexical and grammatical density of the narrator texts of students shows that although the texts meet the minimal threshold for written texts, there is still room for improvement. The development of writing skills with a focus on using richer and more varied lexical words can improve the quality of narratives and the effectiveness of storytelling in the context of animation. The average lexical density of the analyzed narrator texts was 55.10%, which is above the 40% threshold proposed by Ure (1971) to differentiate oral and written texts, although above the threshold, the students' narrator texts are still categorized as less dense for academic written text standards, indicating room for improvement. Narrator texts exhibit characteristics that fall between spoken and written language, in accordance with Halliday's (1985) theory, which is suitable for animation narratives so this study reveals the need for the development of academic and narrative writing skills in the animation curriculum,

focusing on the use of richer and varied lexical words. Increased lexical density can help improve narrative quality and storytelling effectiveness in the context of animation. These findings provide valuable insights for the development of teaching methods in animation education, particularly in the aspects of narrator text writing, so, final conclusion: Although students majoring in animation have demonstrated basic proficiency in writing narrator texts with lexical density above the minimal threshold, there is still a significant need and opportunity to improve their skills in using richer and more complex language. This can be achieved through specialized training and a greater focus on developing writing skills within the animation curriculum.

End Notes

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