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Analysis of Lexical Density and Readability of Pakistani English Newspaper Dawn

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## Abstract

This research study aimed to analyze the lexical density and readability of Pakistani English Newspaper and so, to suggest their suitability for the level of students. Eight newspapers from four genres were selected as sample. The theory of Systemic Functional Linguistics based on the theory of lexical density by Ure (1971) was applied for finding lexical density and readability indices by using content analysis design through an online text analyzer software. Readability values were compared with the Flesch Reading Ease Scale. The results of this study showed that lexical density values of all genres were greater than 40% according to the Flesch Reading Ease Scale. All the texts were lexically dense having a greater number of contents carrying lexical items as compared to grammatical items. The findings of study could also be applied to academic textbooks in order to check complexity and suitability according to the level of the students.

Keywords: Lexical Density, Readability, Newspaper, Lexical Items, Grammatical Items, Flesch Reading Ease Scale

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#### Title

#### Analysis of Lexical Density and Readability of Pakistani English Newspaper Dawn

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#### **Keywords:**

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#### Abstract

This research study aimed to analyze the lexical density and readability of Pakistani English Newspaper and so, to suggest their suitability for the level of students. Eight newspapers from four genres were selected as sample. The theory of Systemic Functional Linguistics based on the theory of lexical density by Ure (1971) was applied for finding lexical density and readability indices by using content analysis design through an online text analyzer software. Readability values were compared with the Flesch Reading Ease Scale. The results of this study showed that lexical density values of all genres were greater than 40% according to the Flesch Reading Ease Scale. All the texts were lexically dense having a greater number of contents carrying lexical items as compared to grammatical items. The findings of study could also be applied to academic textbooks in order to check complexity and suitability according to the level of the students.

#### **Contents:**

- Introduction
- <u>Purpose of the</u> <u>Study</u>
- <u>Literature</u> Review
- <u>Methodology</u>
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- <u>Conclusion</u>
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#### Introduction

Reading, as a means of communication is used for sharing ideas, information, and knowledge. It acts as a vehicle of interaction between the reader and the text that is organized by the reader's previous knowledge, experiences, attitude, and language community that is culturally and socially situated (Sholichatun, <u>2011</u>). The processes of reading need persistent development, practice, and improvement. It also needs critical analysis and creativity. Rayner and Reichle (<u>2010</u>) proposed that reading is a process that requires different skills that guide us in gaining awareness in a society where informative materials are delivered in





written form. reading is a process or activity of getting or taking material from scripted or printed symbols (Malik, Emzir & Akhadiah, 2017). Suswati and Saleh (2019) described the text as a spread of language that is either in spoken or written form. In a real-world context, it is pragmatically and semantically coherent. Tiedemann (2011) proposed that reading text is an instrument used to read. Based on language features and generic structures, reading texts have genres. For many years, the term 'genre' has been involved to denote distinctive styles of literary discourse. In present times, the term can be used to direct various sets of communicative events. In language education, it is most significant concept. Pujiati and the Pramudyawardhani (2021) proposed that genre is the culturally specified text that arises by using language in written or spoken form to execute something. Some of the genre texts that are different from each other are reports, news items, narratives, descriptions, discussions, explanations, reviews, analytical exposition, anecdotes, and reports.

Reading comprehension deals with the processes of establishing meaning, including written language to illustrate textual knowledge in the wake of previous information by using efficient and appropriate comprehension techniques. The process of deducing meaning is a method through which readers fuse their previous knowledge with knowledge from a text, bringing out the meaning of words, and incorporating it to reach a clear conception of written form. It deals with the process of deducing meaning from text (Woolley, 2011). If the students are unable to understand the content of the text, they cannot gain knowledge or information from it (Brown, Cardy & Johnson, 2012). Newspapers offer more than just the latest news; they also include features, analysis, observations, and thought-provoking and educational articles, as well as editorials and subeditorials. Newspapers have the power to provide students with the knowledge, information, and perspectives they need to succeed in today's fiercely competitive job market and competitive exams, as well as in their professional and social lives. Reading newspapers also strengthens readers' creative and communication abilities and aids in the development of an objective and enlightening worldview. Newspapers are therefore

regarded as necessary for university students (Akanda & Haque, <u>2013</u>).

Nowadays newspapers are easily accessible and an economical way of providing information about what is happening all over the globe. In this modern era of digitalization, people can easily get to know about the world through their gadgets. Despite the dependence of people on newspapers in printed form nowadays people can also gain access in online form (Heese, Perez-Cavazos & Students feel difficulty Peter, 2022). in comprehending the text. They cannot understand the material easier and faster. This causes a lack of comprehension abilities. The root cause of these situations is the lexical density and readability of text.

The words with high frequency lead to the complexity of the text. Text complexity is seen in lexical density. Difficult text creates problems in understanding. The level of understanding is shown by readability. Nesia (2014) proposed that lexical density deals with the proportion of words in text. It is the ratio of lexical and grammatical items. Lexical items consist of verbs, adjectives, nouns, and adverbs. Functional words consist of determiners, pronouns, conjunctions, prepositions, and some finite verbs. Lexical density is used to describe content carrying lexical items as proportional to the total number of items in the text. The sum of lexical content items and grammatical items gives rise to a total number of words. The text contains more information if it has a high proportionality of lexical items as compared to grammatical functional items. Various implications have been presented for determining lexical density. A significant variant is used to find the density of nouns, which means the proportion of total number of nouns to the number of tokens in the text. Others such as verbs, adjectives, or adverbs divided by total words. Halliday and Matthiessen (2014) proposed that lexical density is the ratio of content-carrying items to the total number of clauses. Thus, for finding lexical density, it is important to know about lexical and grammatical items. Lexical items are the function words that belong to an open set rather than grammatical systems that belong to a closed set. Lexical items belong to an open set where new words can be added, while grammatical items belong to a closed set, which means that new words



cannot be added because of having a fixed set of items. Ure (1971) presented the concept of lexical density by highlighting the difference between lexical content-carrying words and grammatical words, the words (or items) with lexical properties and grammatical words (or items) without lexical properties. Grammatical words are also proposed as "purely in terms of grammar". It determines that these words have grammatical-syntactic functions rather than lexical words. The measure of the lexical density of written text is 40% or above, and the measure of the lexical density of spoken text is below 40%.

Readability is one of the most significant factors that need to be considered while writing certain kinds of text material. It is not only calculated by the length of the words or passages but also measured by how attractively and interestingly the material of the text is written. According to Richard, Platt, and Platt (1992), readability deals with how easily the material in written form can be read, understood, or comprehended. This process depends on some aspects like several new words, length of sentences, and complexity of grammatical language in the text. To analyze the readability level of text, it can be highlighted that the text is easy, plain, or difficult for the reader. Moreover, there are some processes for calculating the level of readability of the text. The most commonly used methods are the cloze procedure, comprehension procedure, instructor judgment, and statistical readability formula. The most extensively used formulas of readability are The Flesch Reading Score, Gunning Fog Index, Flesch Kincaid Grade Level, and SMOG index. When formulas of readability are applied to written text, it gives rise to a statistical score constituted of certain variables like word count, length of sentence, and number of syllables. Every score of readability has distinct elucidations like standard, easy, difficult, and further along with the representation of grade levels. The readability formulas are used by many scholars as a standard for evaluating readability. The main reason is to highlight how hard text is without telling the readers to comprehend text material by themselves. This research is based on The Flesch Reading Ease Formula to find the indices or levels of readability. This formula was established by Rudolf Flesch. It analyses the level of readability by the number of words, sentences,

and syllables. Dubey (2004) considered this formula as popular, tested and reliable.

## Purpose of the Study

English language being a second language is taught as a subject in almost all institutions in Pakistan. English is learned through many media and newspapers are one of these sources. Newspapers mostly incomprehensible are for many undergraduate students because of the complexity of the language used here. This causes a lack of comprehension abilities. One of the root causes of this situation is the lexical density of the text affecting the readability of the text. Lexical density deals with the proportion of words in text (Nesia, 2014). It is the ratio of lexical and grammatical items. Lexical items consist of verbs, adjectives, nouns, and adverbs. Lexical density is used to describe content carrying lexical items as proportional to the total number of items in the text. The high proportionality of lexical items as compared to grammatical functional items contains more information causing problems in readability. The lexical density of the English newspaper Dawn in the present study is analyzed by using Ure's (1971) theory and the Flesch Reading Ease Scale adapted from Curtis and Hassan (2002) which contains readability values based on grade level. Based on the identification of the problem, the researchers investigate the level of complexity and understanding of Dawn Newspaper. Lexical density and readability indices help in finding the complexity and simplicity of the text and the level of understanding according to the grade level. This research would be significant to enhance the knowledge of the researchers about lexical density and readability in reading newspapers. Furthermore, the study focuses on finding out the type of genre having high lexical density and readability in reading the text of the Pakistani English newspaper Dawn.

#### **Literature Review**

The concept of lexicality is significant while describing lexical density. Lexical density deals with the total number of contents carrying vocabulary in text (Vera et al., 2016). It can be used for discourse or text analysis by measuring the ratio of function or content words (Sholichatun, 2011). Measuring the lexical complexity of printed texts is

well-established (Alghamdi, Gruba, Masrai, & Velloso, 2023), having more lexical density than spoken texts (Khorina, & Handani, 2022). If the text has a greater number of lexical items (Le, Yue & Le, 2011) as compared to grammatical items, it means the text has greater lexical density (Rahmansyah, 2012). Grammatical items do not give much information in a text but create a connection between ideas in a sentence (Ninio, 2018). Readability is the level of understanding or degree of easiness and difficulty by which text can be understood by the reader. It deals with the probability that text content is apprehended by the reader, which should be distinguished from certainty, a degree of how comfortably individual characters or letters can be differentiated from each other and how they are interpreted in the form of a text (Lumepa, Tuna & Andries, 2022). A text is considered to be more readable when features of the text make it understandable for the reader to bring out required or desired knowledge (Smeuninx et al., 2016). Readability is the degree of easiness or difficulty of the text that can be understood by the readers and comprehended for a particular purpose (Pikulski, 2002). Woods, Moscardo, and Greenwood (1998) proposed that text readability is used to highlight the complexity

of the written language and to indicate the reading or educational level that is required to comprehend the text. The formulas of readability are accessible to people through different online sites. Instead of typing, users can copy the text and paste it into online text analyzer software and simply get the estimate of readability (Dubay, <u>2007</u>).

Flesch Reading Ease Formula is as follows:

$$Score = 206.835 - (1.015 \times ASL) - (84.6 \times ASW)$$

$$Score = Position on a scale of 0 - 100$$

$$ASL (Average Sentence Length)$$

$$= \left(\frac{Number of words}{\div number of sentences}\right)$$

$$ASW(Average Number of Syllables per Word)$$

$$= \left(\frac{Number of syllables}{\div number of words}\right)$$

Flesch Reading Ease Formula calculates readability ease value on a scale ranging from 0-100. It shows how to find readability ease value and grade level on a scale. The value between 0-30 signifying 'very difficult,' for postgraduate level, 30-50 signifying 'difficult' for undergraduates, 50-60 signifying 'fairly difficult' for grade 10-12 level, 60-70 signifying 'standard' for 8-9 grade, 70-80 signifying 'fairly easy' for grade 7, 80-90 signifying 'easy' for grade 6, 90-100 signifying 'very easy for grade 5.

# Table 1

Flesch Reading	<i>Ease Scale</i>
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Flesch Reading Ease	Description of Style	Education Attainment Level
0-30	Very difficult	Postgraduate
30-50	Difficult	Undergraduate
50-60	Fairly difficult	Grade 10-12
60-70	Standard	Grade 8-9
70-80	Fairly easy	Grade 7
80-90	Easy	Grade 6
90-100	Very easy	Grade 5

Note: Original Flesch Reading Ease Scale (Courtis & Hassan, 2002, p. 406)

Various researches have been carried out regarding lexical density and readability. Prawinanto and Bram (2020) conducted a study of English high school textbooks. The outcome of this research indicated that the grade-X textbook of English by the Indonesian Government was convenient for students. Purnomo (2016)investigated the difficulties that arise as a result of complex grammatical use of descriptive and

narrative texts in the English book of Grades VII, VIII, and IX of Private Junior Islamic High School in Medan. Satriwan (2018) analyzed the content and grammatical words of English reading texts from junior high school. The results showed that three were under the low category, and two had high lexical density. Costantini and Fuse (2022) examined the readability of textual knowledge on COVID-19 vaccination that was present online in articles in newspapers in Asia. Sari and Ekawati (2021) applied a quantitative method by highlighting the lexical density in Reader's Digest Magazine. Pratiwi, Farikah, and Indriani (2018) analyzed the lexical density and readability of textbooks of level 4. To, Fan and Thomas (2013) examined the lexical density and readability of texts from English textbooks. These textbooks were known as Active Skills for Reading at elementary and intermediate, pre-medium, and upper levels. This study used three methods Ure (1971) and Flesch (1948) for finding lexical density and readability. Lukmana and Gunawan (2021) took the contended disputed articles from the UU Cipta Kerja to highlight the lexical density. The results showed that a high lexical density index, namely 10.81 was found in disputed articles related to employment. This showed complexity in content thus making it difficult for the common reader. The lexical density level of different textbooks could be different in different sectors like public and private schools which in turn could be appropriate or not to the level of students learning a second language (Fadhil, Gunawan, & Wirza, 2023), which is further influenced by type of language and genres understudy (Liu, 2022) and level of students (Rizkiani, Mahdi, & Sujatna, 2022). So, to consider the needs of the reader, it is necessary to clarify the language, reduce the formality of the text, and improve the understanding of the reader. The current research will be new and significant in analyzing the lexical density and readability of English Newspaper Dawn.

#### Methodology

This research used descriptive content analysis as a research design. Descriptive research means that the data of the study are explained or described (Allan, 2020). The descriptive method is significant for highlighting the diversity of educational issues and problems. In educational research, descriptive studies play an important role. It enhances the knowledge of people about educational processes by illustrating the results in a particular way by using several tables and scores (Gay, <u>2018</u>). The data of the study was based on the lexical density of the Dawn newspaper. The newspapers published from February until March 2022, based on four genres; Sports, Education, Business, and Science were selected through a nonrandom purpose sampling. A total of 8 reading texts based on 4 genres were analyzed through the descriptive qualitative method by using Ure's (1971) proposed formula for lexical density theory and the Flesch Reading Ease Scale for finding readability. Readability values were assessed through online text analyzer software and judged according to the Flesch Reading Ease Scale. The researchers used the Flesch formula for measurement because it is the most reliable, experimented, and popular formula. The researchers identified content carrying lexical items (nouns, verbs, adverbs, and adjectives) and grammatical items (prepositions, conjunctions, determiners, and pronouns) from each of the selected texts of the newspaper for determining lexical density. The researcher copied the specific part of the text, pasted it into different sheets, and entered it into text analyzer software to determine readability. For the analysis of the lexical density of Dawn Newspaper, the researchers identified the content-carrying items and grammatical items. The lexical items were labeled in bold form and non-content-carrying items or grammatical words were shown in italics. The content-carrying lexical items, and then the total number of items present in the text were counted. The sum of lexical items and grammatical items gives rise to a total number of items. By measuring the value of lexical density, the theory of Systemic Functional Linguistics based on the lexical density theory of Ure (1971) was applied, which is a significant process for exploring the text.

# $Lexical \ Density = \frac{Number \ of \ lexical \ items}{\div \ Total \ number \ of \ words}$

Based on this measurement, if the number exceeds 40%, it accounts for a high lexical density level. Khamahani (2015) proposed that if the lexical density level exceeds 50%, it shows high lexical density. Data was analyzed to highlight the level of lexical density of the Dawn newspaper. To analyze the readability of Dawn newspaper, the researcher copied a specific part of the text, pasted it into different sheets, and entered it into a readability assessor site called https://seoscout.com/tools/text-analyzer. This site provided the score of readability based on the Flesch formula. Dubay (2006) stated that it is one of the most popular formulas and most tested and reliable.

 $Score = 206.835 - (1.015 \times ASL) - (84.6 \times ASW)$  Score = Position on a scale of 0 - 100 ASL (Average Sentence Length)  $= \left(\frac{number of words}{\div number of sentences}\right)$  ASW(Average Number of Syllables per Word)  $= \left(\frac{number of syllables}{\div number of words}\right)$ 

It showed readability indices by providing the word count, total number of sentences, and syllables. Moreover, the researchers judged readability by comparing the values with the Flesch Reading Ease Scale adapted from Courtis and Hassan (2002) which contains readability values based on a grade level ranging from 0-100. After analyzing the values, the researchers highlighted the genre having high or low lexical density and readability.

#### Results

For the analysis of readability, the researcher used text analyzer software to get the readability indices. Following are the details of the lexical density of each text found in newspapers. The table shows the lexical density and level of the density for selected texts from the Dawn newspaper.

## Table 2

Level of Lexical Density

Aspect (Texts)	Lexical Density	Level of Density
Text 1	57.25	High
Text 2	52.42	High
Text 3	54.05	High
Text 4	57.95	High
Text 5	60.62	High
Text 6	61.15	High
Text 7	61.28	High
Text 8	55.20	High

The lexical density of the sports genre that contains text 1 and text 2 was 57.25 and 52.42 respectively. Text 3 and text 4 of the education genre had a lexical density of 54.05 and 57.95 respectively. Text 5 and text 6 likewise had a lexical density of 60.62 and 61.15 respectively, which were taken from the business genre. Science genre having text 7 and text

8 had lexical densities of 61.28 and 55.20, respectively. Based on Ure (1971), all texts of all sections had high lexical density because their value exceeded 40%. Following are the details of the readability indices of each text found in the newspaper and the suitability of the text for different grades.

#### Table 3

#### **Readability** Indices

Aspect (Text)	Readability	Suitability for Grade	
Text 1	58%	10-12	
Text 2	55.9%	10-12	
Text 3	60.9%	8-9	
Text 4	36.3%	Undergraduate	
Text 5	31%	Undergraduate	
Text 6	37.2%	Undergraduate	
Text 7	45.1%	Undergraduate	
Text 8	38.9%	Undergraduate	

The readability value of sports genres was 58% and 55.9%, respectively. The first text contained 656 words, 30 sentences, and 943 syllables. The second text contained 848 words, 47 sentences, and 1308 syllables. By comparing the readability value with the Flesch Reading Ease Scale as shown in Table 2, it was concluded that texts 1 and 2 of the sports correspondent were fairly difficult in style and suitable for 10-12 grade students. Text 3 and text 4 of the education genre had readability indices of 60.9% and 36.3%. the first text contained 528 words, 27 sentences, and 810 syllables. The second text contained 455 words, 20 sentences, and 785 syllables. Interestingly, the first text of the Education Correspondent was standard in style and suitable for grade 8-9 level students but the second text of the Education Correspondent was difficult in style and suitable for undergraduatelevel students. The data shows that different texts of the same correspondent have suitability for different grade levels. Text 5 and text 6 had readability values of 31% and 37.2% that were taken from the business genre. The readability value of the first text was 31%. It contained 549 words, 21 sentences, and 1023 syllables, while the

second text contained 288 words, 11 sentences, and 475 syllables. Both the texts by comparing the readability value with the Flesch Reading Ease Scale as shown in Table 2, of the business correspondent were difficult in style and suitable for undergraduate-level students. Science genre having text 7 and text 8 had readability values of 45.1% and 38.9%, respectively. The first text contained 295 words, 11 sentences, and 463 syllables, while the second text contained 341 words, 11 sentences, and 557 syllables. By comparing the readability value with the Flesch Reading Ease Formula as shown in Table, it is concluded that both texts of the Science Correspondent were difficult and suitable for undergraduate-level students. Lexical density was constituted of the number of lexical items as proportional to the total number of items in the text. These levels showed whether the text consisted of narrow or large consideration of vocabulary words. If the text contained a greater number of content-carrying lexical items as compared to non-content-carrying items (grammatical items), it means the text consisted of a greater extent of vocabulary words.

# Table 4

Text	Content Carrying Lexical Items	Non-Content Carrying Lexical Items	Total Number of Lexical Items	Level of Dense Vocabulary	Lexical Density
Text 1	351	262	613	Large	57.25
Text 2	378	343	721	Large	52.42
Text 3	280	238	518	Large	54.05
Text 4	255	185	440	Large	57.95
Text 5	348	226	574	Large	60.62
Text 6	170	108	278	Large	61.15
Text 7	201	127	328	Large	61.28
Text 8	159	129	288	Large	55.20

The Level of Dense Vocabulary in Texts

In the first text, the lexical density level contained large vocabularies, having 351 content-carrying items and 262 grammatical items. Thus, the lexical density was 57.25. In the second text, the lexical density level contained large vocabularies, having 378 lexical items, 343 non-content carrying items, and a lexical density was 52.42. The third text contained 280 lexical items and 238 functional items. It contained a large number of vocabularies and lexical density was 54.05. The fourth text contained 255 lexical words and 185 grammatical words. Lexical density level contained larger vocabularies. The fourth text had a lexical density of 57.95. The level of lexical density of the fifth text constituted vocabularies in large numbers containing 348 lexical words, and 226 functional items and had a lexical density of 60.62. The sixth text had dense vocabularies. It contained 170 content-holding items and 108 non-contentholding items. It had a lexical density of 61.15. The lexical density level of the seventh text contained dense vocabularies. It had 201 content-holding lexical items 127 non-content-holding words and a lexical density was 61.28. The lexical density level of the eighth text had dense corresponding vocabularies containing 159 content lexical words and 129 noncontent functional words. Thus, had a lexical density of 55.20.

# Table 5

The Row of Highest to Lowest Lexical E	Density in Texts of Dawn Newspaper
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Aspects (Text)	Text Title	Lexical Density
Text 7	Sanctions could cause space station to crash: Roscosmos	61.28
Text 6	Banks directed to employ 20pc women	61.15
Text 5	Penalization of paying power consumers opposed	60.62
Text 4	Malakand division to be the hub of educational activities: CM	57.95
Text 1	Ton-up Imamul Haq punishes faltering Australia in 1st Test	57.25
Text 8	Giant ice volcanoes identified on Pluto	55.20
Text 3	Taliban fear educated women, quip schoolgirls	54.05
Text 2	Football: Girls just want to play	52.42

The above table highlights that the highest level of lexical density was 61.28 in the seventh text in the Science Correspondent news. The lowest lexical density level of 52.42 was observed in education correspondent news. A total of 8 texts based on four genres of Dawn Newspaper were analyzed. According to Ure's (1971) formula, if the lexical density of written text is above 40% it accounts for high lexical density. If the level of lexical density is below 40%, it accounts for low lexical density. Readability was obtained through online text analyzer software based on the Flesch Formula. The readability indices were analyzed by comparing them with the Flesch Reading Ease Scale which contained values ranging from 0-100. The table below displays the distribution of lexical density and readability for text.

# Table 6

Average Lexical Density Values of Genres of Dawn Newspaper

0 0 1		
Genre	Text Aspect	
Sport Correspondent	Text 1	54.83
	Text 2	
Education Correspondent	Text 3	56
_	Text 4	
Business Correspondent	Text 5	60.88
	Text 6	
Science Correspondent	Text 7	58.24
_	Text 8	

The above table shows the average values of lexical density of the genre of Dawn Newspaper as follows: The first genre of sports correspondent had an average value of lexical density of 54.83. The second genre of education correspondent was 56. The third genre of business correspondent was



60.88. The fourth genre of science correspondent was 58.24.

# Table 7

Text Aspect	Content Carrying Lexical Items	Non-Content Carrying Lexical Items	Average Values of Lexical Items	Average Values of Grammatical Items
Text 1	351	262	364	302.5
Text 2	378	343		
Text 3	280	238	287.5	211.5
Text 4	255	185		
Text 5	348	226	259	167
Text 6	170	108		
Text 7	201	127	180	128
Text8	159	129		

Average values of Content and Non-Content Carrying Lexical Items

The above table shows average values of content and non-content carrying lexical items of the genre of Dawn Newspaper. The average value of content carrying lexical items of the First genre of Sports Correspondent was 364 and non-content carrying lexical items was 302.5. The education genre had 267.5 content-holding words and 211.5 noncontent-holding items. The business genre had 259 lexical items and 167 non-content-carrying items. The content carrying lexical words and grammatical words of the science genre were 180 and 128 respectively.

# Table 8

#### The Level of Dense Vocabulary in Texts

Text	Content Carrying Lexical Items	Non-Content Carrying Lexical Items	Total Number of Lexical Items	Level of Dense Vocabulary	Lexical Density
Text 1	351	262	613	Large	57.25
Text 2	378	343	721	Large	52.42
Text 3	280	238	518	Large	54.05
Text 4	255	185	440	Large	57.95
Text 5	348	226	574	Large	60.62
Text 6	170	108	278	Large	61.15
Text 7	201	127	328	Large	61.28
Text 8	159	129	288	Large	55.20

In the first text, the lexical density level contained large vocabularies, having 351 content-carrying items and 262 grammatical items. The lexical density was 57.25. In the second text, the lexical density level contained large vocabularies, having 378 lexical items, and 343 non-content carrying

items, and lexical density was 52.42. The third text contained 280 lexical items and 238 functional items. It contained a large number of vocabularies and lexical density was 54.05. The fourth text contained 255 lexical words and 185 grammatical words. Lexical density level contained a large vocabulary. The fourth text had a lexical density of 57.95. The level of lexical density of the fifth text constituted vocabularies in a large number containing 34 lexical words, and 226 functional items, and had a lexical density of 60.62. The sixth text had dense vocabularies. It contained 170 content-holding items and 108 non-content-holding items. It had a lexical density of 61.15. The lexical density level of the seventh text contained dense vocabularies. It had 201 content-carrying lexical items 127 non-content holding words and a lexical density was 61.28. The lexical density level of the eighth text had dense corresponding vocabularies containing 159 content lexical words and 129 functional words. Thus, had a lexical density of 55.20.

# Table 9

Average Readability Values of Genres of Dawn Newspaper

Genre	Text Aspect	Average Value of Readability
Sport Correspondent	Text 1	56.95
	Text 2	
Education Correspondent	Text 3	48.6
	Text 4	
Business Correspondent	Text 5	34.15
	Text 6	
Science Correspondent	Text 7	42
	Text 8	

The above table shows average values of readability of the genre of Dawn Newspaper. The first genre of sports correspondent had an average value of readability was 56.95. The second genre of education correspondent was 48.6. The third genre of business correspondent was 34.15. The fourth genre of science correspondent was 42. By comparing the average values with the Flesch Reading Ease Scale, it was concluded that the first genre of sports correspondent having an average value of 56.95 was fairly difficult for Grade 10-12 level students. The second genre of education correspondent had an average value of 48.6 and was difficult for Undergraduates. The third genre of business correspondent had an average value of 34.15 and was difficult for undergraduate-level students. The fourth genre of science correspondent had an average value of 42 and was difficult for Undergraduate level students.

# Conclusion

After analyzing the lexical density of the reading text of Dawn newspaper. After the analysis of data by applying the Flesch Reading Ease formula and judging the readability through the Flesch Reading Ease Scale, the researcher found that the business genre of Dawn newspaper is less understandable than other genres for undergraduates of the universities. After the business genre, the science genre was difficult with a higher average readability value difficult and suitable for undergraduates. The education genre was found difficult in style description and suitable for undergraduates. The sports genre had a fairly difficult readability value suitable for 10-12-grade students. The findings of this study studied by applying Ure's (1971) theory revealed that the lexical density of all genres of Dawn newspaper was higher than 40%, showing that all the texts were lexically dense. Thus, it is concluded that all the texts had a high number of content-carrying lexical items as compared to grammatical items. Moreover, a readability score predicts that the education, business, and science genres were difficult and suitable for undergraduates. The sports genre was fairly difficult in style description and suitable for grade 10-12 level students. It is suggested that other researchers gain help and consider this study as a reference for further research on lexical density and readability by studying it in terms of the contents of newspapers already learned by students. Moreover, the findings of this study can also be applied to academic textbooks to find whether a particular text is difficult or appropriate for a particular grade. It is recommended that text should have a balance between lexical items and grammatical items as they are not so easy or difficult for understanding of the reader. Additionally, the results can help English teachers access the material and select the ones that meet the demands of their students and have the right lexical density and readability.

#### References

- Akanda, A., & Haque, M. A. (2013). Newspaper reading habits of university graduate students in Bangladesh: A case study. *International Journal of Research in Applied, Natural and Social Sciences* (*IMPACT: IJRANSS*), 1(3), 1-8.
  Google Scholar Worldcat Fulltext
- Alghamdi, E. A., Gruba, P., Masrai, A., & Velloso, E. (2023). The use of lexical complexity for assessing difficulty in instructional videos. *Language Learning & Technology*, 27(1), 1-21.
  Google Scholar Worldcat Fulltext
- Allan, G. (2020). Qualitative research. In *Handbook for* research students in the social sciences. Routledge. <u>Google Scholar</u> <u>Worldcat</u> <u>Fulltext</u>
- Brown, H. M., Oram-Cardy, J., & Johnson, A. (2012). A Meta-Analysis of the reading comprehension skills of individuals on the autism spectrum. *Journal of Autism and Developmental Disorders*, 43(4), 932–955. <u>https://doi.org/10.1007/s10803-012-1638-1</u> <u>Google Scholar</u> <u>Worldcat</u> <u>Fulltext</u>
- Costantini, H., & Fuse, R. (2022). Health information on COVID-19 vaccination: readability of online sources and newspapers in Singapore, Hong Kong, and the Philippines. *Journalism and Media*, 3(1), 228– 237. https://doi.org/10.3390/journalmedia3010017

Google Scholar Worldcat Fulltext

- Courtis, J. K., & Hassan, S. (2002). Reading ease of bilingual annual reports. *The &Journal of Business Communication/Journal of Business Communication*, 39(4), 394–413.
   <u>https://doi.org/10.1177/002194360203900401</u> <u>Google Scholar Worldcat Fulltext</u>
- DuBay, W. H. (2007). The Classic Readability Studies.<a href="http://files.eric.ed.gov/fulltext/ED506404.pdf">http://files.eric.ed.gov/fulltext/ED506404.pdf</a><a href="http://googleScholar">GoogleScholar</a>Worldcat</a>Fulltext</a>
- Mills, G. E., & Gay, L. R. (2018). *Educational research: Competencies for Analysis and Applications*. Pearson. <u>Google Scholar</u> <u>Worldcat</u> <u>Fulltext</u>
- Fadhil, A., Gunawan, W., & Wirza, Y. (2023). Lexical Density in EFL Indonesian Textbooks: A Comparative Analysis. JALL (Journal of Applied Linguistics and Literacy), 7(1), 121. <u>https://doi.org/10.25157/jall.v7i1.9727</u> <u>Google Scholar Worldcat Fulltext</u>
- Halliday, M., Matthiessen, C. M., Halliday, M., & Matthiessen, C. (2014). An introduction to

functional grammar. In *Routledge eBooks*. https://doi.org/10.4324/9780203783771 <u>Google Scholar</u> <u>Worldcat</u> <u>Fulltext</u>

- Heese, J., Pérez-Cavazos, G., & Peter, C. D. (2022). When the local newspaper leaves town: The effects of local newspaper closures on corporate misconduct. *Journal of Financial Economics*, 145(2), 445–463. <u>https://doi.org/10.1016/j.jfineco.2021.08.015</u> <u>Google Scholar Worldcat Fulltext</u>
- Khamahani, G. (2015). A corpus-based analysis of Tehran Times and Azeri news headlines: focus on lexical density and readability. *International Journal of Humanities Social Sciences and Education*. 2(1), 12-16.

Worldcat

Fulltext

**Google Scholar** 

- Khorina, M., & Handani, W. Z. (2022). Comparing the lexical density of spoken and written news. Linguistics and ELT Journal/Linguistics and Elt Journal, 10(2), 18. <a href="https://doi.org/10.31764/leltj.v10i2.10226">https://doi.org/10.31764/leltj.v10i2.10226</a>
  Google Scholar Worldcat Fulltext
- Le, T., Yue, Y., & Le, Q. (2011). Linguistic Complexity and its Relation to Language and Literacy Education. <u>http://ecite.utas.edu.au/66990/1/66990\_Le.pdf</u> Google Scholar Worldcat Fulltext
- Liu, J. (2022). Lexical features of economic legal policy and news in China since the COVID-19 outbreak. *Frontiers in Public Health*, 10. <u>https://doi.org/10.3389/fpubh.2022.928965</u> <u>Google Scholar Worldcat Fulltext</u>
- Lukmana, I., & Gunawan, W. (2021). Lexical density in UU Cipta Kerja: A case study of controversial articles. In *Proceedings of the Tenth International Conference on Languages and Arts (ICLA 2021).* <u>Google Scholar</u> Worldcat Fulltext
- Lumepa, R. A., Tuna, J. R., & Andries, F. A. (2022). Readability Assessment of reading texts in Pathway to English for SMA/MA Grade X. *Kompetensi*: *Jurnal Ilmiah Bahasa & Seni*, 1(04), 408–420. <u>https://doi.org/10.53682/kompetensi.v1i04.1856</u> <u>Google Scholar Worldcat Fulltext</u>
- Malik, M., Emzir, E., & Akhadiah, S. (2017). The influence of Learning Techniques and Schemata Levels in Ability to Read English Academic Text. *JETL (Journal of Education, Teaching, and Learning)*, 2(2), 259. <u>https://doi.org/10.26737/jetl.v2i2.316</u>
  <u>Google Scholar Worldcat Fulltext</u>
- Nesia, B. H., & Ginting, S. A. (2014). LEXICAL DENSITY OF ENGLISH READING TEXTS FOR

SENIOR HIGH SCHOOL. *Register*, 3(2), 221925. <u>http://digilib.unimed.ac.id/15960/</u> Google Scholar Worldcat Fulltext

- Ninio, A. (2018). Learning to structure sentences through the acquisition of grammatical words: Introduction to the special issue on the role of grammatical words in young children's syntactic development. *First Language*, 39(1), 3–8. <a href="https://doi.org/10.1177/0142723718809746">https://doi.org/10.1177/0142723718809746</a>
  <u>Google Scholar Worldcat Fulltext</u>
- Pikulski, J. J. (2002). *Readability*. Mifflin Company. University of Delaware.
  - Google Scholar Worldcat Fulltext
- Pratiwi, Y., Farikah, F., & Indriani, L. (2018). AN ANALYSIS OF LEXICAL DENSITY AND READABILITY IN READING TEXT ON ENGLISH TEXTBOOK USED BY FORM 4 LEVEL OF SECONDARY SCHOOL STUDENTS IN SMKBSB MALAYSIA. Journal of Research on Applied Linguistics, Language, and Language Teaching, 1(1), 66–75. https://doi.org/10.31002/jrlt.v1i1.197 Google Scholar Worldcat Fulltext
- Prawinanto, A., & Bram, B. (2020). ADJECTIVE AND NOUN CLAUSE LEXICAL DENSITY IN AN ENGLISH TEXTBOOK FOR SENIOR HIGH SCHOOL STUDENTS. *GEEJ* (*Getsempena English Education Journal*), 7(2), 255–268. <u>https://doi.org/10.46244/geej.v7i2.1019</u> <u>Google Scholar Worldcat Fulltext</u>
- Pujiati, R., & Pramudyawardhani, S. (2021). Grammatical Intricacy and Lexical Density on Genres in National Examination Texts. Journal Dialektika Program Studi Pendidikan Bahasa Inggris, 8(2), 202-211. <u>https://journal.peradaban.ac.id/index.php/jdpbi</u>/article/download/617/485
  Google Scholar Worldcat Fulltext
- Purnomo, M. D. (2016). Grammatical intricacy and lexical density in the texts of English handbook at private Islamic Junior High School Level in Medan. *Ihya al-ArabiyahJournal Pendidikan Bahasa dan Sastra Arab*, 2(2), 11-16

Google Scholar Worldcat Fulltext

Rahmansyah, H. (2012). *Grammatical intricacy and lexical density of the SMA student's textbooks.* London: Rutledge.

<u>Google Scholar</u> <u>Worldcat</u> <u>Fulltext</u>

Rayner, K., & Reichle, E. D. (2010). Models of the reading process. *Wiley Interdisciplinary Reviews*.

CognitiveScience,1(6),787-799.https://doi.org/10.1002/wcs.68Google ScholarWorldcatFulltext

- Rizkiani, D., Mahdi, S., & Sujatna, E. T. S. (2022). Lexical density and readability of the FACIL's 'Advanced Learning Textbook' for Indonesian high school students. *Al-Ishlah*: *Jurnal Pendidikan*, 14(1), 741– 752. <u>https://doi.org/10.35445/alishlah.v14i1.1157</u> <u>Google Scholar</u> <u>Worldcat</u> <u>Fulltext</u>
- Sari, A. N., & Ekawati, R. (2021). LEXICAL DENSITY IN READER'S DIGEST MAGAZINE. Prosodi, 15(1), 17-22. <u>https://doi.org/10.21107/prosodi.v15i1.10483</u> Google Scholar Worldcat Fulltext

Satriwan, J. (2018). Lexical density of reading texts in English on Sky (VIII) Textbook published by Erlangga. New York: Sage.
Google Scholar Worldcat Fulltext

 Sholichatun, S. (2011). Content analysis of reading materials in English on Sky textbook for junior high school. Lain Walisongo.
 Google Scholar Worldcat Fulltext

- Smeuninx, N., De Clerck, B., & Aerts, W. (2016).Measuring the readability of Sustainability Reports:A Corpus-Based Analysis through StandardFormulae and NLP. International Journal of BusinessCommunication,57(1),52–85.https://doi.org/10.1177/2329488416675456Google ScholarWorldcatFulltext
- Tiedemann, J. P. (2011). New literacies, new contexts? A theoretical definition of reading context. <u>https://ir.vanderbilt.edu/available/etd-03282011-</u> <u>140729/unrestricted/Tiedemann.pdf</u> <u>Google Scholar Worldcat Fulltext</u>
- Ure, J. (1971). Lexical density and register differentiation applications of linguistics. *Selected papers of the Second International Congress of Applied Linguistics*, (33), 443-452.
  Google Scholar Worldcat Fulltext

Woods, B., Moscardo, G., & Greenwood, T. (1998). A critical review of readability and comprehensibility tests. *Journal of Tourism Studies*, 9(2), 49-61.
 Google Scholar Worldcat Fulltext

Woolley, G. (2011). *Reading comprehension: Assisting Children with Learning Difficulties.* Springer Science & Business Media.
Google Scholar Worldcat Fulltext