

Lexical Richness and Features in the Journal Entries of the L2 Learners

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ABSTRACT

Lexical richness is a measure of the quality of the language production in oral or written by the language user. It reflects how well a person can utilize diverse and sophisticated vocabulary in their communication. The level of lexical richness is often associated with effectivity and nuanced communication, enabling language users to express thoughts using their acquired lexicons. This study aimed to determine the extent of lexical richness and the features of journal entries of the L2 learners. Mixed method research design was utilized in this study to quantify and describe the lexical richness of L2 learners. To know the extent of the lexical richness of the journal entries of L2 learners the lexical density, diversity, and sophistication were determined using the lexical frequency profile of Laufer & Nation, (1995). The result was interpreted using the lexical density level scale of Ure (1971) and the AG scale of Naismith, et.al (2018) for lexical diversity and lexical sophistication.

The findings revealed that the L2 learners' journal entries are low in lexical richness with an average of 27.70. Moreover, the journal entries featured a high percentage of high-frequency and basic lexicons which implies that the entries are easy to understand because the lexicons are common. Likewise, the entries consist of a high proportion of nouns which indicates that L2 learners have limited acquired descriptive words in L2. Therefore, regular language assessment per grade level may be conducted to track the progress of L2 learners in L2. Likewise, L2 learners may be given continuous exposure to diverse texts from different disciplines, featuring varying lexical levels.

Keywords: Lexical richness, Lexical density, Lexical Diversity, Lexical Sophistication, L2 learners

INTRODUCTION

Language proficiency is the core of communication. In whatever form, the speaker must be able to express thoughts and ideas using the acquired lexicons in different texts and contexts. Having this ability signifies fluency in the language. In the same way, it reflects a person's level of language competence, concept development, and abstraction (Pablo & Lasaten, 2018).

In writing, the person starts to engrave the learned language harmoniously using a variety of lexicons. The words that the writers choose are important since the quality of a piece of writing is heavily influenced by the vocabulary used (Real, et al., 2020). Writing as a productive skill requires mastery and fluency of the language. Even being contemplated by formal education will not guarantee a mastery of language, especially if a person is a non-native speaker of the target language.

Writing among L2 learners requires a wide understanding of the second language. It is not only the words that they need to learn but also how to put the words together to come up with a sound meaning. Having the skills to write proficiently in L2 is a success in L2 acquisition.

According to Southeast Asian Ministers of Education Organization and the United Nations Children's Fund (UNICEF) in terms of writing, only 1% of Grade 5 learners in the Philippines achieved higher levels of proficiency with an ability to write cohesively and with a good range of vocabulary based from the standards in the conducted study. While almost half or 45% of Grade 5 learners were in the lowest band, which means that students have a limited ability to present ideas in writing.

In Cambodia, Lao PDR, Myanmar, and the Philippines, a very limited number of Grade 5 students achieved higher levels of proficiency in writing. More than 60% of students were in the 3 lowest bands. The highest performers of this group can produce very limited writing, with simple, insufficient ideas and limited vocabulary. The weakest students have only limited ability to present ideas in writing (Balinbin, 2020). Thus, it is evident that L2 learners are academically struggling to express themselves in L2 writing. The Department of Education heard the call for intervention in the reading and writing gaps. Stipulated in the Deped Order No. 39 s. 2012, the development of reading and writing skills is critical to effective learning, and in many cases, deficiencies in these areas are often at the roots of why gaps in learning occur. Thus, a proactive approach to management of potential problems in learning beginning with a sound reading and writing program in schools, is therefore encouraged. Proficiency in reading is pivotal in aiming for proficiency in writing. A learner can write more with a wide range of vocabulary if he was able to grasp lexicon that would help him represents his thoughts using his acquired vocabulary through reading.

Furthermore, the Globe Telecommunication Chief Sustainability Officer and SVP for Corporate Communications, Yoly Crisanto, expressed that reading helps strengthen the brain and build vocabulary and provides the needed mental exercise for a better understanding of the written word, especially a widely used foreign language like English (Deped, 2021). Love of reading among youth will help them achieve their full potential. Through reading students can grasp and enrich their vocabulary bank.

San Antonio (2019) stated that anchored on several research, the 3Bs Initiative (DepEd's Hamon: Bawat Bata Bumabasa) is grounded on the needs of the learners and will develop succeeding interventions for them to acquire reading and comprehension skills. The initiative also recommends six elements of reading (oral language, phonological awareness, phonics, vocabulary, fluency, and comprehension) that learners must understand and be able to use in combination to learn how to read. Rich and varied vocabulary expression can be considered an essential step to becoming a writer who writes quality text.

One of the suggestions presented by Ha (2019) is teachers need to provide students with the opportunity to use vocabulary as a tool for language acquisition. Moreover, teachers are encouraged to use a variety of activities as well as drills and exposure to the English language (Pablo J. C., 2018).

In order to address the cited issues, it is imperative to have a concrete base in determining the quality of vocabulary that L2 learners have already acquired. Nonetheless, in the Philippines L2 learners' lexical richness in writing was never part of the standardized L2 proficiency assessment. Stipulated in the Deped Order no. 55 s, 2016, Policy Guidelines on the National Assessment of Student Learning for the K to 12 Basic Education Program, are the test to be given to student from school year 2016 – 2017 up to 2013 – 2024. The format of the test items is all multiple choices. Most of the programs or assessments are to measure the reading skills as well as the reading comprehension of the learners. This lead the researcher to conduct a study that will unveil the lexical richness of L2 learners' journal entries.

The Gabao National High School is one of the national high schools in Sorsogon province, located in the Municipality of Irosin. The school catered four barangays namely Barangay Gabao, Barangay Gulang-gulang, Barangay Tongdol, Barangay Bulawan, and few from Barangay Gumapia. It has been observed

that there are students who are struggling to express their answers in writing. More so, some tend to skip the essay part of the test.

This study aimed to know the extent of lexical richness along lexical density, lexical diversity, and lexical sophistication as well as to determine the lexical features observed in the journal entries of the Grade 10 L2 learners.

Conceptual Framework

The extent of lexical richness and features in the journal entries of L2 learners was determined in this study. The study’s flow is shown in Figure 1 where the journal entries are the primary source of data to know the extent of lexical richness and features of the written journal entries of L2 learners.

The journal entries were the responses of the L2 learners in the 15-Day Thankful Challenge. The collected journal entries were encoded and uploaded into the online vocabulary profiler, the Compleat Vocabulary Profiler, where the needed data was generated. The results were extracted to be able to determine the lexical density, lexical diversity, and lexical sophistication. Further, the results of the three measures were analyzed and through the use of adapted scale the extent of the lexical richness of L2 learners’ journal entries was determined. The generated data from the online vocabulary profiler also provided the number of occurrences of lexicons which helped the researcher determine the dominant features of the lexicon in the L2 learners' journal entries.

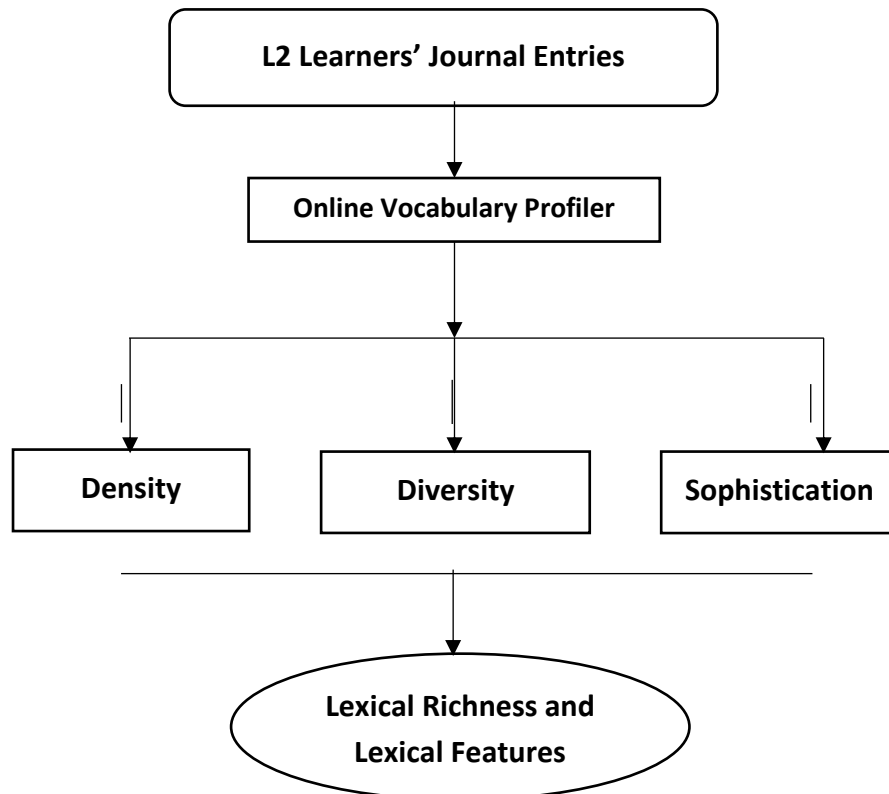


Figure 1. Conceptual Paradigm

This Study

The review of studies presented different methods and measures for understanding the lexical richness of written and oral production of L2 learners in terms of lexical density, diversity, sophistication, including fluency. Most of the cited studies were comparative descriptive analyses of L2 production using the lexical

frequency profile of different participants in terms of grade level, gender, nationalities, and location. Some also identified the varied aspects that affect the lexical richness in the written and spoken language of the learners.

Similar to the cited studies, the present study focused also on determining the extent of lexical richness and features in the L2 learners' written output. Though there were similar studies, there were only a few particular published studies regarding the Lexical richness in the journal entries of Grade 10 L2 learners. Also, there were limited assessments of ESL learners' written output to measure the extent of lexical richness.

This study aimed to know the extent of lexical richness along lexical density, lexical diversity, and lexical sophistication as well as to determine the lexical features observed in the journal entries of the Grade 10 learners.

METHODOLOGY

Research Design

This study utilized an exploratory sequential design, a mixed method research design, where a combination of research tools were applied (Miles & Huberman, 1994), to determine the extent of the lexical richness and to determine the lexical features in the journal entries of the Grade 10 students. Qualitative content analysis was employed in this study where written texts that require the counting of words, phrases, or grammatical structures are grouped under specific categories (Obeyd, 2021). Furthermore, to quantify the extent of lexical richness of the journal entries of the students the Lexical Frequency Profile through an online vocabulary profiler was used and the cumulative frequency was applied in drawing samples for the analysis of the result.

The Respondents/The Participants/The Informants/The Subjects

The (35) thirty-five Grade 10 L2 learners of Gabao National High School, G10-Unity, School Year 2023-2024, were purposively selected to be the participants for this study. The sample was determined based on the provided criteria: (1) the class section must be composed of 35 regular Grade 10 learners, (2) must be a set of heterogeneous learners, for the reason that the class is already a representation of different levels of students in terms of academic performance.

Research Ethics

The researcher prepared and secured a consent form signed by the learners and their parents. Also, the participants were made aware that their personal information and responses in the journal entries would be kept private and that only their Learner's Reference Number (LRN) was cited in this paper.

Research Instrument

The L2 learners' journal on 15-day Thankful Challenge, adapted from the planner of one of the pharmacies in the Philippines, was the journal writing activity given to the L2 learners. The daily journal writing challenge evolved in the theme of being grateful in the different circumstances in life. The learners had to answer and write about their personal experiences and views. To meet the most reliable result, learners were advised to present their entries in a minimum of 200 words because according to Laufer and Nation (1995), texts containing more than 200 words are more consistent in understanding lexical richness than those lesser than 200 words.

Data Collection

To be able to gather data for this study, the researcher sought approval from the school head of Gabao National High School, Gabao, Irosin, Sorsogon. Also, the researcher secured consent from the learners as

well as from their parents. The consent form was written both in English and in Irosanon Bikol. After the approval was secured, the study was conducted.

The researcher presented the journal writing activity to the Grade 10 L2 learners. Each task was read and learners were encouraged to ask and clarify items that were confusing to them. Moreover, the researcher provided the learners with an extra notebook to ensure that entries were intact. The journal writing started on November 8, 2023 to November 23, 2024. For 15 consecutive days, the researcher collected the daily entries of the L2 learners. After noting the submitted journals, it was returned on the same day to the learners for the continuation of the journal writing activity. On Saturdays and Sundays, the journals were collected on Monday morning. The collected journal entries were signed and noted to monitor the religious submission of the journals.

After 15 days, the journal entries were manually encoded in Microsoft Word. While encoding the entries the misspelled words were corrected for the reason that it contributed to the generated result. The journal entries were saved in two files, first as an individual set per student and compiled journal entries in one document. The encoded entries were uploaded twice to an online vocabulary profiler, Compleat Lexical Tutor. Firstly, the individual entries and another as entries of L2 learners this is because of the limited word capacity of the online vocabulary profiler, the compressed journal entries were divided and saved into two files before being uploaded.

Data Analysis

The data were gathered, encoded, and uploaded to an online vocabulary profiler, Compleat Lexical Tutor. The result was tabulated, analyzed, and interpreted using appropriate statistical tools and measures. Included in the generated result are the category of lexicons used by the L2 learners. Specifically, the K1 (first 1000 words), K2 (2000 words), AWL (Academic World List), and OFFLIST (words that are not listed in the mentioned three categories).

To know the extent of the lexical richness of journal entries along lexical density, lexical diversity, and lexical sophistication the formulas below were applied:

Lexical Density =
$$\frac{\text{Number of Tokens}}{\text{Total number of tokens}} \times 100$$

In determining the lexical density, the proportion of the number of lexical tokens and the total number of tokens in the journal entries of L2 learners were computed. The lexical tokens are the content lexicons used by the L2 learners while the content words are the nouns, verbs, adjectives, and adverbs (Johansson, 2009) in a text. To assess the extent of lexical density the scale of Ure (1971) was adapted, where the higher the score the denser the journal entry is, thus implying more information presented in the L2 journal entries.

Lexical Density (Ure, 1971)

Scale	Description
≥70	Very High
61-70	High
51-60	Moderate
41-50	Low

In determining the lexical diversity the proportion of the number of types and number of tokens was measured. While in lexical sophistication, the proportion of advanced tokens and the total number of

lexical tokens. According to Read (2000) advanced tokens are the number of rare words in the text. For this study, the advanced tokens are the sum of the AWL and Offlist used in the journal entries of L2 learners. The data were extracted from the result reflected in the online vocabulary profiler. Also the proper nouns from the list were excluded. The higher the TTR score the more diverse the journal entry.

Lexical Diversity =
$$\frac{\text{Number of Types}}{\text{Number of tokens}} \times 100$$

In determining the extent of lexical diversity and lexical sophistication, the Naismith (2018) lexical sophistication level was utilized in this study. Since the lexical diversity and lexical sophistication are both leads to the measurement of the quality of the L2 learners’ written output.

Lexical Sophistication =
$$\frac{\text{Number of advanced tokens}}{\text{Number of lexical tokens}} \times 100$$

(Naismith et.al, 2018)

Scale	Description
≥50	Advanced
40-49	Upper-Intermediate
30-39	Intermediate
0-29	Low Intermediate

Furthermore, this study utilized an online VocabProfiler which was developed by Tom Cobb and that can be accessed in www.lexutor.ca/vp/, in analyzing the journal entries of the students. VocabProfile is a computer program that performs lexical text analysis. This online vocabulary profiler runs text and divides its words into four categories by frequency in the language at large not necessarily in the text itself: (1) the most frequent 1000 words of English, (2) the second most frequent thousand words of English, i.e. 1001 to 2000, (3) the academic words of English (the AWL, 570 words that are frequent in academic texts across subjects), and (4) the remainder which is not found on the other lists. In other words, VP measures the proportions of low and high-frequency vocabulary used by a native speaker or language learner in a written text. A typical NS result is 70-10-10-10, or 70% from first 1000, 10% from second thousand, 10% academic, and 10% less frequent words. This relatively simple tool has been useful in understanding the lexical acquisition and performance of second language learners.

The lexical sophistication is based on the percentage score of the Academic Word List (AWL) and the Off-list Words reflected in the result of the online vocabulary profiler; since the two are not included in the most frequently used words implies that the words belong to “advance words”, hence the two were added and used as advanced tokens in the journal entries. To get the lexical tokens the POS tagging online was also utilized because the online vocabulary profiler, lexutor.com, is limited only in identifying the content words and function words. The auxiliary verbs were manually tagged and excluded. Likewise, removed the proper nouns in the offlist. Furthermore, the result was interpreted using the scale above.

The results in lexical density, lexical diversity, and lexical sophistication were tabulated and analyzed. The average of the three measures was utilized to determine the extent of the lexical richness in the journal entries of the L2 learners, where the higher the number, the higher in lexical richness and the lower the number the lower, in lexical richness in the journal entries of the L2 learners.

RESULTS and DISCUSSION

The extent of lexical richness in the journal entries of the L2 learners

The extent of lexical richness in the journal entries of L2 learners along lexical density, lexical diversity, and lexical sophistication is presented in the (3) tables below.

A. Lexical Density

Lexical density is one of the degrees of richness of a text in terms of meanings, ideas, and information (Fadhil, Gunawan, & Wirza, 2023). Moreover, Wollacott (2024) suggested that balanced lexical density is approximately 50 percent, meaning half of each sentence comprises content and function words. This balance indicates a rich and informative text with an appropriate mix of content and structure.

Presented in Table 1A is the lexical density of journal entries of (35) thirty-five L2 learners. The table shows the proportion of the average number of content words and the average number of tokens used by the L2 learners in expressing their thoughts to the given 15-day journal writing challenge. The description is the interpretation of the lexical density level (Ure, 1971) which indicates the extent that contributes to the lexical richness of the journal entries, the higher the result the denser the journal entries.

Table 1A
Lexical Density

Lexical Density Range	f	\bar{x}	Description
≥ 70			Very High
61-70			High
51-60	3	51.56	Moderate
41-50	32	41.72	Low
	35	42.57	Low

f= number of sets of journal

In the 35 sets of entries, there are (3) three L2 learners whose journal entries are *Moderate* dense, and the rest journal entries are *Low* dense. The average of the content words that the L2 learners were able to use is 1122 and 2624 total number of tokens, overall, the average lexical density is 42.57 which is interpreted as *Low* dense. This tells that even though the participants in this study are already in 10th Grade they still have limited vocabulary knowledge specifically the content words of L2. So, this implies that L2 learners may not have established a wide variety of lexicons during their early grade levels in language acquisition. More so, L2 learners may have relied on simple sentence structures and high-frequency lexicons since the presented activity to them is journal writing. Further, the topic given is about being grateful, as a result, L2 learners may have utilized lexicons that are also limited to their daily activities, which are simple and basic lexicons.

According to Zhang et al. (2021), texts with higher lexical density are typically more formal written texts. Congruently, the current study found that the L2 journal entries are low in lexical density, therefore L2 journal entries present minimal information and less formal written text.

B. Lexical Diversity

According to Kyle, Crossley, and Scott (2020), the abundance of lexicons in the text is the strongest predictor of lexical diversity ratings. This suggests that the more varied and numerous the lexicons present in a text, the higher its lexical diversity score will be. Conversely, the result in measuring lexical diversity reflects the range of vocabulary choices and lexical repetitiveness in the text.

Table 1B
Lexical Diversity

Lexical Diversity	f	\bar{x}	Description
≥50			Advanced
40-49			Upper-Intermediate
30-39	8	33.09	Intermediate
0-29	27	22.44	Lower Intermediate
	35	24.88	Lower Intermediate

f= number of sets of journal

Table 1B presents the lexical diversity of L2 learners’ journal entries. The *Description* indicates the extent of lexical diversity of the L2 learners in presenting their thoughts about the 15-day Thankful Challenge journal writing. The higher the result the more diverse the lexical items in the journal entries. Among the 35 sets of L2 journal entries, there are 8 L2 learners whose entries are *Intermediate*, and 27 are *Low Intermediate*. The average number of types of words is 602 and the average number of tokens is 2624, thus the average lexical diversity is 24.88 and is interpreted as Lower Intermediate.

Table 1B reveals that L2 learners have utilized repetitive lexicons in composing their journal entries. Most of the entries are classified as Lower Intermediate, indicating that L2 learners may have acquired a limited variety of L2 lexicons, despite writing about their own experiences and events in life. The 15-day journal writing activity had a theme of being grateful in different life circumstances. Consequently, L2 learners may have opted to repetitively use the basic L2 lexicons they were familiar with. This limited variety of lexical items suggests that L2 learners were not able to effectively utilize a diverse range of lexicons to express their thoughts, relying instead on the repetitive use of familiar words.

According to Zhang et al. (2020), low lexical diversity is linked to limited linguistic exposure and the nature of lexical learning. Liu and Dou (2023) supported this by noting that a low lexical diversity score indicates a high level of lexical repetitiveness and a limited range of vocabulary choices. These findings imply that enhancing lexical diversity in learners’ writing requires exposing them to a broader range of vocabulary and encouraging varied word usage to reduce repetition and improve overall language proficiency.

C. Lexical Sophistication

According to Read (2000), lexical sophistication is the “selection of low-frequency words that are appropriate to the topic and style of the writing, rather than just general, everyday vocabulary.” Thus, lexical sophistication goes beyond basic word usage, requiring writers to choose words that not only fit the context, but also elevate the writing’s depth and formality.

Table 1C
Lexical Sophistication

Lexical Sophistication	f	\bar{x}	Description
≥50			Advanced
40-49			Upper-Intermediate
30-39	1	30.76	Intermediate
0-29	34	14.33	Lower Intermediate
	35	15.66	Lower Intermediate

f= number of sets of journal

Table 1C presents the lexical sophistication level of the L2 learners’ journal entries. This includes the Academic Word Languages (AWL) as well as the number of words under the Off-list. The *Description* indicates the extent of lexical sophistication of the journal entries of L2 learners, wherein the higher the score the more sophisticated the entries are. Among the 35 sets of journal entries, there is 1 *Intermediate* and 34 are *Low Intermediate*. The average AWL is 57 while the Off-list is 119. Furthermore, the result shows a notable difference in the number of AWL and Off-list lexicons. Overall, the average lexical sophistication of journal entries of L2 learners is 15.66 which is interpreted as *Low Intermediate*.

The data shows a notable difference between the number of AWL and Off-list lexicons, suggesting a higher usage of high-frequency lexicons, potentially less common and typically not found in academic lists. This indicates that the journal entries are largely composed of high-frequency lexical items, resulting in texts that are easy to understand but lacking in lexical sophistication.

This analysis implies that L2 learners predominantly use everyday vocabulary rather than more specialized, low-frequency words that could enhance the depth and formality of their writing. The prevalence of high-frequency words and the low lexical sophistication score suggest that learners are not yet fully utilizing a sophisticated vocabulary, which could be attributed to limited exposure to diverse and complex lexical items.

According to Tom Cobb, Lexitutor.com, a text will be considered sophisticated if 10% of it is advanced or unusual words. Likewise, Sari (2019) suggested that the texts could be regarded as difficult if the proportion of AWL surpassed 9% of the whole text. The higher the result the more sophisticated the written output is. In the current study, the average result of the collected journal entries is 15.44 % which shows that it surpassed the percentage of sophistication, however based on the scale (Naitsmith, 2018) utilized in this study the journal entries of L2 learners are still considered Low intermediate or still in the beginner stage of L2 learners.

In this study, maybe L2 learners utilized high-frequency words because of the nature of the activity given to them. However, if they were versed with the L2 eventually they would have been able to express their thoughts using higher levels of lexicons. On the other hand, this also implies that L2 learners struggle even in expressing their everyday activities using L2 because of a not-so-established foundation in the acquisition of L2.

To summarize, Table 1D presents the lexical richness of the journal entries of L2 learners. The table explicitly shows that the extent of lexical richness of L2 learners’ journal entries is low with an average of 27.70. This reveals that the lexical knowledge of L2 learners is limited even to the expression of their daily life activities.

Table 1D
Lexical Richness

Lexical Richness	\bar{x}	Interpretation
Lexical Density	42.57	Low
Lexical Diversity	24.88	Low Intermediate
Lexical Sophistication	15.66	Low Intermediate
Lexical Richness	27.70	Low

According to Zhang, Chen, and Li (2021), L2 writings produced by beginner learners are comparatively low in lexical richness, incorporating a limited range of vocabulary comprising primarily high-frequency words and function lexicons because they lack lexical resources to be able to express their thoughts in written output. This underscores the challenges beginner L2 learners face in achieving lexical richness.

Their reliance on high-frequency words and function lexicons reflects a lack of lexical resources, which limits their expressiveness and overall writing quality. The low average lexical richness score in Table 1D highlights a need for improvement in the language proficiency and writing quality of learners.

Therefore, the lexical richness of the L2 journal entries along lexical density, diversity, and sophistication is Low. The average score of L2 journal entries in lexical density is 42.57 which is interpreted as Low dense. The lexical diversity is 24.88, which is also interpreted as diversely Low. In terms of lexical sophistication, the score is 15.66 which is interpreted as Low Intermediate. Overall, the lexical richness of the L2 journal scored 27.70, which is interpreted as Low.

CONCLUSIONS AND RECOMMENDATIONS

The lexical richness of L2 learners' journal entries is Low along lexical density, diversity, and sophistication. Regular language assessment per grade level may be conducted to track the progress of L2 learners in L2. Likewise, L2 learners may be given continuous exposure to diverse texts from different disciplines, featuring varying lexical levels.

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