Using Ant-Word Profiler App to Classify Vocabulary Level for Paragraph Writing among EFL Learners

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ABSTRACT

There is a vast amount of study of vocabulary assessment strategies by professional educators and a number of methods have emerged to gauge vocabulary competence. However, only a limited number of literatures analyze the use of online application to assess EFL students’ vocabulary level, especially in Indonesia. To fill this gap, this study employs Ant-Word Profiler App to classify students’ vocabulary level on final exam in advanced paragraph writing course among Indonesian undergraduate EFL Learners. Drawing on the Laufer Theory (1997) on factors which affect vocabulary learning, this study showcases the group of participants challenge their vocabulary mastery as they were routinely engaged to the writing class. The participants were, second semester students at Indonesia tertiary Institution who enrolled in Advanced Paragraph Writing course range from 19 to 22 years old. This descriptive interview study utilized a corpus-based research in vocabulary context of writing course. The AntWordProfiler app generates lexicon statistics and recurrence about the corpus of the text. The primary categories of the data collected are the overall quantity of running words in a specific content of the given text. The results demonstrate that students at different stages of writing proficiency used a low percentage of Advanced vocabulary indeed on the final exam of the course. The implication of this study calls for the interactive vocabulary and writing pedagogy to enrich vocabulary mastery for students of language teacher education.

Keywords:
EFL Learners
Paragraph Writing Performance
Vocabulary Level

1. INTRODUCTION

It is clear that the task of writing, especially at advanced levels, is very complex (Lord 2009). Numerous studies have examined a number of key aspects that contribute to the complexity of learners' writing processes, including learners’ vocabulary mastery (Wolsey, 2010; Latif, 2012; Dabbagh et al., 2017; Minkyung, 2020), low level of self-efficacy (Huerta et al., 2017; Sabti, 2019; Sanders-reio et al., 2014; Wilson & Roscoe, 2019; Zabihi, 2018), self-esteem (Arnold, 1999; Hassan, 2001; Stephens et al., 2021; Wynne et al., 2014), self-beliefs (Jones, 2008), writing motivation (Hidi & Boscolo, 2007; Saghafi et al., 2017; Waer, 2021), lack of a linguistic skill (Latif, 2012), writing strategic ability (Alfarwan, 2022), low of reading interest (Huang, 2015), afraid of taking risks, introvert identity, negative classroom atmosphere, and passive interaction (Arnold, 1999).

The significance of being able to write in English as a foreign language (EFL) situations has steadily grown since English has emerged as a language of international business and communication (Minkyung,
The prominent factor in determining students’ success in writing and communicate effectively is based on students’ vocabulary mastery, which involving the cooperation among teachers, researchers, and students (Stenius, 2008; Schmitt, 2010; Minkyung et al., 2020). Some students get confused because they don’t have enough vocabulary to express themselves. Writing requires mastery of language, and measures overall writing ability include vocabulary, grammar, punctuation, capitalization, spelling, and paragraph development (Jacobs et al., 1981; Apriliwati et al., 2017). In this case, even the best grammar skills must be supported by sufficient vocabulary mastery (Thornbury, 2002). Likewise, vocabulary is a reflection of one’s language or linguistic abilities (Fakhruddin & Jarar, 2005). Meanwhile (Harmer, 2001) explains that in applied linguistics vocabulary is the first component that affects language learners, especially for the second language learners.

Language learning strategies (LLS) have been of interest to researchers since the 1970s, when researchers were trying to identify the types of learning strategies used by successful second language (L2) learners (Rubin, 1975). In the history of LLS research, the shift towards classification was active in the 1980s and 1990s. (O’Malley, J. M., & Chamot, 1990), for instance, proposed three types of strategies, including cognitive strategies, metacognitive strategies, and social/affective strategies. Around the same time, (Oxford, 1990) introduced a classical taxonomy that classified LLS into six categories: cognitive, metacognitive, affective, and social strategies.

Vocabulary is a complex phenomenon and a large number of studies have investigated the relationship between students’ vocabulary use and the quality of their writing skill, and the general finding is that holistic assessment of EFL students’ written composition is closely related to writing analysis (Stæhr, 2008). Language adept and researchers, as well understand the value of vocabulary knowledge and, particularly, its close relationship to reading abilities (Gardner, 2013; Nation, 2013). Both non-native language users and language scholars are recognize of the vocabulary-learning challenges encountered by different learners. The most frequently mentioned are the large number of words, word families, and multiple word units that must be learned and used. However, regarding the learning of vocabulary, the situation is different in each context. Build upon the fact that in the context of foreign language learning the opportunities are restricted in terms of target-language input, output, and interaction, what seems necessary for vocabulary learning is the employment of motivational and effective learning strategies (Tseng & Schmitt, 2008). Concerning both foreign and second contexts of language learning, it has been shown that the lack of vocabulary knowledge can be an important reason for making learners reluctant to be exposed to the skills of reading and listening. Besides, a wide range of notable features are usually subsumed under the category of the challenge of vocabulary learning (and teaching) such as word frequency, saliency, learning burden, and learners’ particular vocabulary needs and wants (Grabe & Stoller, 2018). The level of vocabulary comprehension on the performance English learner is described by six levels of proficiency from basic, intermediate, and advance (A1, A2, B1, B2, C1, and C2, the highest level) (Glover, 2011). The level is adjusted to the ability possessed by a person in comprehension vocabulary in writing. For this reason, this study take the concerns in regard to measure the vocabulary level coverage English Writing Class of second semester at a tertiary institution in Indonesia.

Based on a literature review, the most common vocabulary learning strategies used by learners are using bilingual dictionaries, oral and written repetition, learning spelling, inferring from context, and asking classmates for meaning was found (N. Schmitt, 1997). Moreover, researchers have found that learners use more types of strategies to learn vocabulary than reading, listening, speaking, and writing (O’Malley, J. M., & Chamot). Less successful learners, on the other hand, did not want to use dictionaries and ignored unfamiliar words and contexts in the learning process (Ghalebi et al., 2020). They were generally characterized by a passive approach to learning (Gu, 2003). It was found the qualities of a strong learner depend on many variables related to learning. In the field of vocabulary learning, the focus has shifted from trying to communicate the strategies of strong learners to weak learners to trying to find ways to successfully use L2 learning strategies (Plonsky, 2011).

The vocabulary measurement in writing for English foreign language class has been conducted by several scholars. (Li and MacGregor, 2010) has test assesses learners’ knowledge of words of different frequencies general English and of high-frequency words within academic texts, using most recent versions of the VLT (Nation, 2001) it is useful tool for estimating the vocabulary size of second language learners of English because easy to administer and score but limited at lower word frequency level. Besides, (Zhong, 2018) explores the contribution of each aspect to controlled productive word use in context, and offer insights into the use of existing vocabulary assessment using a revised version of the VKS (Wesche, 1996) instruments, and yet this tool has the limitations of the study was the two-day test administration arrangement, thus possibly affecting the test performance on the second day. To tackle the problem in vocabulary measurement of writing class, this present study select the appropriate measurement of students’ vocabulary mastery by using an application instrument called the AntWordProfiler application developed by...
Laurence Anthony, Ph.D. for carrying out corpus linguistics research on vocabulary profiling. Additionally, again the use of applications that do not require much time to make researchers efficient in describing the results at the end of the study.

AntWordProfiler is a freeware, multiplatform tool for carrying out corpus linguistics research on vocabulary profiling. It is developed in Perl using various compilers to generate executables for the different operating systems. AntWordProfiler contains two tools. The main tool is a general vocabulary analyzer tool. It appears in the main window of the program. Vocabulary Profile Tool: This tool to generate vocabulary statistic and frequency information about a corpus of texts loaded into the program. File Viewer and Editor Tool: This tool allows you to view an individual user file and highlight the different levels of vocabulary in the file using a color coding (Anthony, 2014). It also shows the overall coverage of different vocabulary levels. This is useful to simplify the text, and detect the equivalent items at a lower (or higher) vocabulary level can be chosen as replacements. It can provide the percentage of words from the Academic Word List contained in a passage to determine its academic characteristics (Choi and Moon, 2020). The use of AntWordProfiler can count how many words level coverage are in each writing sample (Palfreyman and Karaki, 2019). Briefly, this research study identifies the student-level vocabulary used in Advanced Paragraph Writing course in English Teacher Education Department. A difference from previous studies is that this study focuses on academic lexical classification using the AntWordProfiler application as a measurement tool. Additionally, researchers conducted this study to make students consider in using academic vocabulary and develop their ability to write in academic works.

2. RESEARCH METHOD

The method used by writer to conduct this research is descriptive interview study utilized a corpus-based research design in vocabulary context of writing course of advanced paragraph writing class. Data collection started with determine the sample of participants, followed by providing information to participants about the research topic and sending an online consent letter as a participant in this study. To gain in-depth understanding on the data, a thematic interview is conducted by the researcher. The researcher intends to analyze on vocabulary level in course of Advanced Paragraph Writing Using AntWordProfiler Application as an instrument in this research.

The participants was predominantly female (92%) and male (8%) with age ranging from 19 to 22 years. The participants were second semester students who enrolled in Advanced Paragraph Writing course in Undergraduate program of English Department at one of private university in Jember, Indonesia. Participants were recruited to participate in the research and informed about the topic. The participants also understood that the results of the data collection were for research purposes only.

After the data has been collected, the results of the paragraph writing in student's final project will be converted into a file (.txt) and then uploaded alternately to the AntWordProfiler Application. To analyze the data the researcher describes the percentage results that appear in the application. As a percentage of level coverage, the application will detect the number of vocabulary marked with 4 color indications:

- Red color: indicating basic level of vocabulary mastery in students’ writing sheet
- Green color: indicating intermediate level of vocabulary mastery in students’ writing sheet
- Blue color: indicating advanced level of vocabulary mastery in students’ writing sheet
- Black color: indicating special level vocabulary/uncommon use in students’ writing sheet

Number of types in data statistic from AntWordProfiler after input the data from participants indicating the word use in a paragraph is unique, whereas number of tokens refers to the total number of words in a paragraph.

![Figure 1. Collecting Data Procedure](image-url)
### TABLE 1. Sample Interview Questions

1. What is your perception about the advanced paragraph writing course?

2. What learning strategies did you use while taking the advanced paragraph writing course?

3. Do you think that giving assignments from lecturers during the implementation of the advanced paragraph writing course has been effective?

4. Is there a specific websites that you access during your advanced paragraph writing course or are there website recommendations from lecturers?

5. How does the lecturer explain the material? Are the students given the opportunity by the lecturer to provide feedback?

### 3. RESULTS AND DISCUSSION

Researcher analyzed the data from the participants using *AntWordProfiler* freeware to find out the level coverage of vocabulary. The participants’ responses resulted from questionnaire and the first questionnaire indicate data informing gender and age. See figure 4.1 and figure 4.2.

#### The Result from AntWordProfiler

All the data of 12 students were analysed by AntWordProfiler by (Anthony, 2014). Table 1 shows the percentage of each token coverage of vocabulary from the participants.

<table>
<thead>
<tr>
<th>Student no.</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 0</th>
<th>Token Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student no.1</td>
<td>87.4%</td>
<td>5.9%</td>
<td>4.3%</td>
<td>2.4%</td>
<td>97.6%</td>
</tr>
<tr>
<td>Student no.2</td>
<td>78.6%</td>
<td>6.2%</td>
<td>7.8%</td>
<td>7.5%</td>
<td>92.6%</td>
</tr>
<tr>
<td>Student no.3</td>
<td>87.3%</td>
<td>2.4%</td>
<td>3.9%</td>
<td>6.3%</td>
<td>93.6%</td>
</tr>
<tr>
<td>Student no.4</td>
<td>78.7%</td>
<td>4.3%</td>
<td>11.8%</td>
<td>5.2%</td>
<td>94.8%</td>
</tr>
<tr>
<td>Student no.5</td>
<td>85.3%</td>
<td>4.4%</td>
<td>5.5%</td>
<td>4.8%</td>
<td>95.2%</td>
</tr>
<tr>
<td>Student no.6</td>
<td>89.3%</td>
<td>3.7%</td>
<td>3.7%</td>
<td>3.3%</td>
<td>96.7%</td>
</tr>
<tr>
<td>Student no.7</td>
<td>81.5%</td>
<td>6.4%</td>
<td>7.7%</td>
<td>4.3%</td>
<td>95.6%</td>
</tr>
<tr>
<td>Student no.8</td>
<td>80.5%</td>
<td>6.4%</td>
<td>9.3%</td>
<td>3.8%</td>
<td>96.2%</td>
</tr>
<tr>
<td>Student no.9</td>
<td>85.4%</td>
<td>3.5%</td>
<td>5.1%</td>
<td>6.1%</td>
<td>94.0%</td>
</tr>
<tr>
<td>Student no.10</td>
<td>78.7%</td>
<td>3.9%</td>
<td>5.6%</td>
<td>11.8%</td>
<td>88.2%</td>
</tr>
<tr>
<td>Student no.11</td>
<td>88.9%</td>
<td>5.8%</td>
<td>3.1%</td>
<td>2.2%</td>
<td>97.8%</td>
</tr>
<tr>
<td>Student no.12</td>
<td>88.4%</td>
<td>8.3%</td>
<td>2.2%</td>
<td>1.1%</td>
<td>98.9%</td>
</tr>
</tbody>
</table>

**Student no.1**

According to student 1 data in writing paragraph there are 127 number of types, and 254 number of tokens. Indicating the Advanced level (level 3) in the following vocabulary : stress, constraints, tasks, focus, media, jobs, appreciate. Afterwards for special level vocabulary (level 4) in the following vocabulary: overwhelmed, deadline, untidy, messy, lifestyle. this shows that the advanced level in student 1 paragraph is only 4.3% of the 97.6% token coverage.

**Student no.2**

According to student 2 data in writing paragraph there are 166 number of types, and 308 number of tokens. Indicating the Advanced level (level 3) in the following vocabulary : evolution, technology, negative impacts, physical, files, media, tasks, regulates, focus, stress, interactions, focused, process, cultural, ethical, maturation, obtained, environment,roles. Afterwards for special level vocabulary (level 4) in the following vocabulary : TV, blend, online, copyright infringement, internet, pornographic viruses, gambling.
fraud, timing, durable, durability, electronic, laptops, mobile, notebooks, unrelated, readiness. This shows that the advanced level in student 2 paragraph is only 7.8% of the 92.6% token coverage.

Student no.3
According to student 3 data in writing paragraph there are 102 number of types, and 205 number of tokens. Indicating the Advanced level (level 3) in the following vocabulary: process, rely, physical, achieve, factor. Afterwards for special level vocabulary (level 4) in the following vocabulary: determinant, smart, betray. This shows that the advanced level in student 3 paragraph is only 3.9% of the 93.6% token coverage.

Student no.4
According to student 4 data in writing paragraph there are 161 number of types, and 348 number of tokens. Indicating the Advanced level (level 3) in the following vocabulary: process, reliance, physical, achieve, factor. Afterwrrds for special level vocabulary (level 4) in the following vocabulary: determinant, smart, betray. This shows that the advanced level in student 4 paragraph is only 11.8% of the 94.8% token coverage.

Student no.5
According to student 5 data in writing paragraph there are 160 number of types, and 273 number of tokens. Indicating the Advanced level (level 3) in the following vocabulary: interaction, communication, computers, intense, creative, assess, aspects assessed, positive communication, bonds, media, researchers, perception, partner's, accuracy, investigated, specifically, protocols, recovering. Afterwards for special level vocabulary (level 4) in the following vocabulary: socialize, intermediaries, gadgets, electronic intermediaries, interlocutor, absorbed, practiced, presentations, mobile, cell, emotional, discrepancy, cell, shortcomings, interlocutor, cues, covid-19. This shows that the advanced level in student 5 paragraph is 5.5% of the 95.2% token coverage.

Student no.6
According to student 6 data in writing paragraph there are 111 number of types, and 215 number of tokens. Indicating the Advanced level (level 3) in the following vocabulary: achieve, targets, capabilities, coincidence, process. Afterwards for special level vocabulary (level 4) in the following vocabulary: enthusiastic, enthusiasm, delicious, ups, downs, adage, betrays. This shows that the advanced level in student 6 paragraph is 3.7% of the 96.7% token coverage.

Student no.7
According to student 7 data in writing paragraph there are 128 number of types, and 233 number of tokens. Indicating the Advanced level (level 3) in the following vocabulary: technology, impact, revolution, impact, major factor, negative impact, communication, impact. Afterwards for special level vocabulary (level 4) in the following vocabulary: mobile, cellphones, nearsightedness, radiation. This shows that the advanced level in student 7 paragraph is 7.7% of the 95.6% token coverage.

Student no.8
According to student 8 data in writing paragraph there are 148 number of types, and 236 number of tokens. Indicating the Advanced level (level 3) in the following vocabulary: Corporate, Finance Institute, tasks, focused, task, potential. Furthermore, schedule, ultimately, goals, contrary, illustrate, prioritizing, schedule, consequently, adjust, stress, perceived, academic. Afterwards for special level vocabulary (level 4) in the following vocabulary: hugely, allot, efficiency, disorganization, deadlines, disorderly, collide, timed. This shows that the advanced level in student 8 paragraph is 9.3% of the 96.2% token coverage.

Student no.9
According to student 9 data in writing paragraph there are 100 number of types, and 198 number of tokens. Indicating the Advanced level (level 3) in the following vocabulary: achieving, evidenced, conducted, economist, research, motivation, conclusion. Afterwards for special level vocabulary (level 4) in the following vocabulary: physicists Alessandro Pluchino, Andrea Rapisarda, Alessio Biondo, surrender., opportunity, luckiness. This shows that the advanced level in student 9 paragraph is 5.1% of the 94.0% token coverage.

Student no.10
According to student 10 data in writing paragraph there are 113 number of types, and 178 number of tokens. Indicating the Advanced level (level 3) in the following vocabulary: interaction, dramatically, adults, whereas, whereas, contacts, contacts, virtual. Afterwards for special level vocabulary (level 4) in the following vocabulary: switch, gadgets, weakening, updates, chatt, update, doingmore, Indonesians, pseudo, hyperreality, fabrications, fake. this shows that the advanced level in student 10 paragraph is 5.6% of the 88.2% token coverage.

Student no.11
According to student 11 data in writing paragraph there are 117 number of types, and 226 number of tokens. Indicating the Advanced level (level 3) in the following vocabulary: involved, achieve, goals, lecturer. Afterwards for special level vocabulary (level 4) in the following vocabulary: homework wich, homework, William Shakespeare. this shows that the advanced level in student 11 paragraph is 3.1% of the 97.8% token coverage.

Student no.12
According to student 12 data in writing paragraph there are 136 number of types, and 276 number of tokens. Indicating the Advanced level (level 3) in the following vocabulary: Topic, schedule, structured, adults, facilitate, subordinates. Afterwards for special level vocabulary (level 4) in the following vocabulary: messy, teenagers, Conluding. this shows that the advanced level in student 12 paragraph is 2.2% of the 98.9% token coverage.

Furthermore, with the results of the data, it is known that the average vocabulary possessed by second semester students is at the basic level (level 1 for red color) but found 1 data with the highest score of 11.8% advanced level in student 4, data with the highest score of 8.3% intermediate level for students 12, and the data with the highest score is 89.3% basic level in student 6.

The Result from Online Interview

**a. Students’ perception in Advanced Paragraph Writing Course**

This theme shows how students perceive the advanced paragraph writing course they have taken.

“I think that in this course I can learn phrases and clauses with the existing grammar, besides that I can learn to develop main sentences into paragraphs and can develop paragraphs into detailed paragraphs.” (Students 4)

“It’s more about learning how to make good and correct paragraphs, and practicing our skills to write and increase English vocabulary” (Students 12)

“even though I don’t understand this course right away, but I still try to understand it” (Students 6)

Students stated that advanced paragraph writing is how we learn about phrase and clause with the grammar existing as stated by student 4. On the other hand, the perception for student 12 that this course is more inclined to learn to make correct and good paragraphs and to practice writing skills and increase vocabulary. In contrast to the previous two perceptions, for students 6 these courses are difficult to understand but during this course still try to understand the advanced paragraph writing.

**b. Learning Strategies While Taking the Advanced Paragraph Writing Course**

Each participant stated that they have their own strategies during the implementation of the advanced paragraph writing course as well as in enriching their vocabulary.

“I do read books, but sometimes, because social media is really influential, so try as much as possible to find a base for English education skill improvement” (Students 4)

“by listening to English songs and English dramas” (Students 12)

“I usually listen to western songs, sometimes from movies or animations like that, from watching pageants too, or the Miss Indonesia event like that.” (Students 6)
The strategies carried out by each student are very diverse and interesting for each of them, as is the case for student 4 that by reading books, scrolling social media is very influential and continues to try as much as possible to find a basis for adding English learning skills. In addition, students 12 are more likely to listen to English songs and English dramas to increase their vocabulary. Not different from student 12 regarding strategies by listening to songs, student 6 also does it, besides listening to western songs, student 6 also watch movies or animation and watch a lot of pageants too, or the Miss Indonesia event.

c. The Effectiveness of Assignments in the Advanced Paragraph Writing Course
Participants stated that most of them agreed that the assignment was appropriate and effective during the course.

“Yes, according to what I experienced, with the assignment from the lecture was able to apply the material quite well and support my understanding of the material.” (Students 4)
“Alhamdulillah, it's effective.” (Students 12)
“I think it's been effective, even though I don't really understand a lot of it” (Students 6)

From the statements given by students in the advanced paragraph writing course, they both agreed that the assignments given were effective during the lecture, even student 4 said that the assignment when applied to the material could support understanding. Not different from the previous statement, student 12 only said gratitude and agreed with the effectiveness of the assignment. In addition, student 6 agreed with its effectiveness but were still some things that were not understood.

d. Supporting Website Used During the Advanced Paragraph Writing Course
Regarding the website used during the course, it is a supporting material and media for enriching vocabulary for students obtained from lecturers and their initiatives to find other websites.

“Yes, from youtube the lecturer gave some references, and they were quite helpful, but personally, I opened google and online dictionaries to look for some word references that can be used to minimize word repetition in doing the given task.” (Students 4)
“For the website not certain but there are several. There are no website recommendations from lecturers” (Students 12)
“I don't have a special website, but from the lecturer there is a youtube channel to learn vocabulary” (Students 6)

Students 4 stated, the youtube channels provided by the lecturer are very helpful, but he also takes the initiative to open Google and online dictionaries to find other references to minimize word repetition when doing assignments. On the other hand, student 12 stated that there was no recommendation website given by the lecturer. As for student 6, there is no special website that student 6 accesses during the course, only a recommendation for a youtube channel given by the lecturer to learn vocabulary.

e. Explanation of the Material from the Lecturer During the Advanced Paragraph Writing Course
This theme provides an explanation of the advanced paragraph writing course given by the lecturer during the learning process.

“What I like about this course is the way it is taught offline. First we discuss yesterday's assignment, then new material again, continue to discuss and sometimes there are study groups like that, interspersed with feedback between friends or from lecturers.” (Students 4)

“Every time we implement this course, we have previously explained the advanced learning material and then given the task to do it and the lecturer still gives time for
Participants mentioned that the explanation of the material from the lecturer in the advanced paragraph writing course was very interesting when it was carried out face-to-face or offline, furthermore there are study groups, interspersed with feedback between friends or from lecturers stated by student 4. Nor different from the previous statement, for student 12 after further explanation of the material students are given the opportunity to ask questions about material that is not understood. On the other hand, each student's understanding was different during the direct implementation. Student 6 states that the understanding of the material is easily absorbed when the focus is not divided.

DISCUSSION

The two steps of data analysis gave the writer conclusion of the study after analyzing the data. The data presented and the explanations above demonstrate the level of advanced vocabulary use in paragraph writing by students. In this way, discussions were deepened based on the results of the research questions. The discussion of this research was shown in the following section. The first part regarded to data analyze by AntWordProfiler that was conducted from the result final exams participants were second semester students who enrolled in Advanced Paragraph Writing course in Undergraduate program of English Department at one of private university in Jember, Indonesia. The main purpose of this study was to analyze the advanced vocabulary used in student paragraph writing, with the aim of linking the results in this case with some theories.

Analysis results using the AntWordProfiler app showed that most of the participants tended to use basic vocabulary in writing advanced level paragraphs. This was also related to the results of the online interview that participants with knowledge of reading and learning through social media to find a base for English education skill improvement (Student 4) shows positive things in increasing the vocabulary used in paragraphs that are developed so that this is the case. In similar shreds of evidence that Positive changes in receptive vocabulary are likely to be associated with the development of productive word use and vice versa. Although not all aspects of vocabulary knowledge are consistent with those of (Zareva, 2005), both studies considered the internal structure of vocabulary knowledge, and the correlation coefficients of both studies were It clearly shows the close relationship of several aspects in the complex structure of vocabulary knowledge.

The duration of the analysis in this study was relatively short, even in a matter of minutes, you could immediately find out the percentage results from the paragraph data archives that had been worked on by participants in the previous exam by processing them using the AntWordProfiler application. Furthermore, the writer found 1 data with the highest score of 11.8% advanced level in student 4, data with the highest score of 8.3% intermediate level for students 12, and the data with the highest score is 89.3% basic level in student 6. This finding opposes with the researcher revealed by (Zhong, 2018) which has research limitations on the two-day test administration setting, and has the potential to provide opportunities for learners looking for the target vocabulary, so that might affect the performance of the test results on the second day.

The finding proved that most of students had a very low percentage of tokens. As a result, researchers recognize the importance of writing properly and effectively in English and can use good writing strategies or techniques to increase authors' awareness of the accuracy and appropriateness of their writing. Researchers consider that the students still feel insecure about writing consistent and appropriate paragraphs in English. In this case, learners do not pay attention to the accuracy of their writing. Many researchers point out that L2 writers make mistakes across the board, including verbs, prepositions, articles, and nouns. In planning, the students may prepare for several things, such as making a detailed note in order that they can prepare what they are going to write.
In a nutshell, student challenges include the structure of writing, including content, topic sentences, supporting sentences, and closing sentences related to the ideas presented in the text. Since the above learners cannot expand their vocabulary, only a small script is presented. As a result, the learners unable to write out topics and ideas. The use of language and its mechanics is also a problem for students as they make mistakes in sentence structure including punctuation, capitalization, prepositions, articles, etc. It can be concluded that their writing skills are not comprehensive. Therefore, writing practice and training is necessary to be able to write well. For some stakeholders, it may actually be possible. Teachers and instructors should be trained to help learners write essays effectively and properly. The results of this study indicate that late-stage students are less proficient at advanced vocabulary levels. It was found that 9 of the 12 data were classified as basic vocabulary level, the rest as intermediate level, and 1 data as the most advanced vocabulary level.

4. CONCLUSION

Based on research findings and discussion, sophomore academic vocabulary usage is very low, with 11.8% of the advanced vocabulary level for 94.8% token coverage of continuous words, one of the highest scores of data participants. It is also proven that 12 of the 2 dates fall into the advanced vocabulary level and the special/uncommon vocabulary level. The top two of highest score achieved by Participant 4 with score 11.8% of advanced vocabulary level, then Participant 10 with score 11.8% of special/uncommon vocabulary level. While others participants data have the largest percentage rate at the basic vocabulary level reaching 89.3% with the advanced vocabulary level achievement below 10%.

The low scores are surprising because the students are studying for English degrees that are taught and assessed in English, although it is undeniable that the lack of an environment that directly and sustainably uses English as one of the effective communication media. Following the importance of academic vocabulary in advanced paragraph writing courses, researchers came up with the idea of identifying advanced vocabulary levels used by semester 2 students in the Faculty of English Teacher Training at a private university in Jember, Indonesia. Their results will be used in the course to create the final exam paragraphs. Elements or aspects that can be measured by vocabulary and also by tokens, types, lemmas, and word families. In this study, the researchers used level vocabulary token her coverage as the measured aspect. This is because researchers need to find out how much vocabulary is used in the participants’ sentence paragraphs. Results show one of 12 participants measured as advanced vocabulary level.

After conducting research on the use of advanced vocabulary in paragraph writing for late-stage English teacher training students at a private university in Jember, Indonesia. Researchers suggest some important things: For future researchers it is suggested to pay more attention to the academic vocabulary used, the implementation of which can be taught at the beginning of the semester. It is highly recommended not only to impose a in addition, continuing this with thematic writing materials allows EFL learners to delve deeper into vocabulary by topic. The future researchers are suggested to conduct a research using English academic writing course as a form of follow-up on the vocabulary level that develops from each student after passing the advanced paragraph writing course at this second semester. However, future researchers should at least consider that there will be significant results from students either in terms of vocabulary richness or even a decrease in writing quality. Therefore, it would be wiser if the further researchers conduct preliminary research related to the course process from the student side and from the lecturer side to get more significant results. Considering that knowing your vocabulary can help you learn about your weaknesses in the previous semester, research becomes more interesting when students also have a strong desire to expand their vocabulary.
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REFERENCES


http://www.victoria.ac.nz/lals/about/staff/paul-nation,


http://www.victoria.ac.nz/lals/about/staff/paul-nation


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Using Ant-Word Profiler App to Classify Vocabulary .. (Agus Tina Sari, Dihliza Basya, Endah Nur Tjendani)