




RECEPTIVE AND PRODUCTIVE ARABIC ACADEMIC VOCABULARY MASTERY: A STUDY OF STUDENTS IN MALAYSIAN PUBLIC UNIVERSITIES





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ABSTRACT

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The issue of learning Arabic among university students is closely related to the mastery of Arabic academic vocabulary (AAV). This study aimed to investigate the mastery of the receptive and productive Arabic academic vocabulary amongst Malaysian Public Universities students. 126 Arabic students from 6 public universities have been selected via purposive sampling method. In order to collect the data, researchers used a set of receptive and productive academic vocabulary tests. 50 academic vocabularies have been used from a list of academic vocabulary provided by [Davies and Gardner \(2013\)](#). The research data were analysed using SPSS v25 (Shapiro-Wilk Test, Kruskal-Wallis Test and Post-Hoc Bonferroni Test). The results shows that the productive test scored higher compared to the results of the receptive test. The findings showed that there are significant differences as compared to the findings of previous vocabulary studies where almost all earlier research indicates that receptive test achievement is usually better than productive test achievement. Researchers argue that this is probably due to the more difficult academic vocabulary features, the number of words used in receptive questions is more than productive tests as well as a less effective test formats to be applied to Arabic language learners as foreign languages.

Contribution/ Originality: The main finding of this study is that the achievement of productive academic vocabulary is higher than the achievement of receptive vocabulary among students who are learning Arabic as a foreign language. This finding is slightly different from the previous studies conducted among native speaker students. Since academic vocabulary is more technical in nature, it is possible that appropriate test should be used for foreign languages.

1. INTRODUCTION

1.1. Background of the Study

Arabic is the language of knowledge, civilization and intelligence, widely used from ancient times to the present. Studies conducted earlier have proven that a lot of the uniqueness and specialty of the Arabic language is

not available in other languages such as the aspects of vocabulary, syntactic methods and morphology found in this language (Muhammad, 2005). These days, learning Arabic in Malaysia has seen a rapid development. Arabic language learning is not limited to just primary and secondary schools, but it is also offered in public and private institutions of higher learning (Samah, 2009). In fact, the Arabic language courses offered in institutions of higher learning have also started to evolve towards higher levels, including the masters and doctoral degrees.

However, in the meantime, the issues of teaching and learning Arabic still remain as a topic of discussion among teachers, researchers and curriculum developers. This is due to the fact where mastering the Arabic language is not an easy feat. Arabic language by itself comprises of foreign characters and spoken nuances which is clearly different from the typical Malay mother tongue. Arabic language typology is totally dissimilar from the local language, showcasing the vast differences in Arabic characters encompassing various aspects such as word construction, pronunciation, syntax and others. Among the important aspects that are often discussed is the issue of student vocabulary mastery. Vocabulary is the most important measure to ensure that a student is said to have mastered Arabic. For high level students who follow the Arabic language academic program such as at the undergraduate, masters and doctoral levels, vocabulary mastery not only involves daily communication, but it also requires a higher level of vocabulary mastery or better known as academic vocabulary. This particular type of vocabulary is absolutely necessary in order to help students mastering the art of learning Arabic at a higher level, especially in reading activities as well as preparation of assignments and more.

1.2. Problem Statement

Student's achievement in vocabulary remains a topic of debate for teachers in schools and lecturers in universities. There are many studies portraying that the level of Arabic proficiency in students is still unsatisfactory. These include the problem of mastery for vocabulary forms and meanings (Norhayuza, 2007) lexical errors (Che Radiah, 2009) as well as the problem of having a very limited vocabulary size (Nurain & Norhayuza, 2020). For students at institutions of higher learning, it is essential to have the mastery of academic vocabulary in addition to ordinary vocabulary. This is due to the fact that almost all reading materials or scientific texts are filled extensively with academic vocabulary. Students need to master the vocabulary well in order to undergo the learning process effectively and subsequently be able to study successfully.

Based on the researchers' observation through their experience of teaching Arabic specialization at UiTM, it is found that most of the students faces multiple problems in learning the language due to low level of academic vocabulary. This causes students to have a disadvantage in their reading skills, understanding and analysing academic texts such as books, journals, scientific article papers, working papers and so on. Not only that, they also found it difficult to prepare a good academic writing and presentations when they are required to do academic projects.

It can be observed that studies on Arabic academic vocabulary have yet to attract the interest among researchers in Malaysia. Prior to this, most studies narrowed down their focus on daily vocabulary with less emphasis on academic vocabulary. Among the notable vocabulary studies in the field of Arabic language in Malaysia is a study relating to vocabulary size by Husaini and Mohamad (2020), Baharuddin and Ismail (2014). In addition, there are also studies related to the level of vocabulary mastery by Razif (2015) Arabic Vocabulary Development Application Design (Zaini et al., 2011) Arabic Vocabulary Learning Strategies (Baharuddin & Ismail, 2014) Study of Lexical Mistakes in Language Learning Arab (Mezah, 2009). Up to this moment, studies in the field of Arabic academic vocabulary in Malaysia have not received due attention.

Acknowledging the importance of academic vocabulary mastery in an effort to mastering Arabic as a foreign language at the IPT level, and other factors such as the lack of available studies related to the Arabic academic vocabulary in Malaysia has prompted this group of researchers to conduct a study on this matter. Our study was conducted with the purpose of identifying the achievement of receptive and productive AAV mastery among

students in six public universities in Malaysia. In addition, it also aimed to discern the extent of differences which exist between the achievement of receptive and productive tests among the students. It is hoped that through this study, researchers can further identify the level of AAV achievement of students in public universities covering both aspects of receptive and productive as well as understanding the issues related to it.

2. LITERATURE REVIEW

2.1. Vocabulary

The majority of linguists have a very similar opinion with regard to the definition of 'vocabulary'. Hubbard (1983) has defined vocabulary as a powerful carrier of meaning. Whereas Diamond and Gutlohn (2006) determine the definition of vocabulary as knowledge of a word and its meaning. This means that a good understanding and use of language will be difficult to achieve without a solid vocabulary aspect. Nation (2001) has determined the knowledge of vocabulary to the knowledge of a word in the form of speech of the word and the speech can be identified and understood in and out of context and not just a mere guess.

2.2. Types of Vocabulary

Based on previous studies on vocabulary, there are various types of vocabulary that have been listed by language scholars. Thus, the researchers have selected two lists of vocabulary types that have been proposed by Data Works Educational Research (2014). According to Nation (2001) urban vocabulary can be divided into four types as follows:

a) High-frequency words

It is a General Service List of English Words that has been listed by West (1953) and has 2,000-word families.

b) Academic words

It consists of more than 800-word families known as the University Word List (UWD) (Nation., 1990; Xue & Nation, 1984). The word list are words that is not included in the general service list, but often appears in academic texts from various fields. This academic vocabulary is said to account for about 8.5 per cent of the total words in the academic text.

c) Technical words

Technical vocabulary are words that is very closely related to the topic or subject in a text. The words in this category are different according to a specific field but usually the number is said to be less than 1000 words for each field.

d) Low-frequency words

It is a very rare group of words and covers only a small part of a text.

Apart from Nation (2001) Dataworks Educational Research which is a California-based company, has classified vocabulary types into three parts. The following is a list of vocabulary types according to Data Works Educational Research (2014):

a) Academic vocabulary

Academic vocabulary is vocabulary that is often found in the context of learning or academic texts. It can be found in texts from a variety of subjects and is not limited to a particular field.

b) Content vocabulary

Content vocabulary is vocabulary specific to a particular subject or field and it is rarely found outside of a particular field or subject.

c) Support vocabulary

Support vocabulary is an excess of words that students need to know in order to understand a sentence or phrase used in a lesson.

Based on the types of vocabulary that have been classified by Nation and Dataworks Educational Research, researchers have chosen academic vocabulary as the focus of this study because it is said to be so significant with students, especially at the IPT level. This is clearly evidenced based on what Nation (2001) and Data Works Educational Research (2014) have mentioned, that academic vocabulary is vocabulary that frequently appears in academic texts and is used by students in their learning process.

2.3. Academic Vocabulary

According to Snow (2010) academic vocabulary is to be very important for the purpose of understanding the text in academic form. A person's lack of understanding regarding this vocabulary will affect the individual's academic literacy. In English, there are two lists of frequently used academic words namely University Word List (UWL) by Xue and Nation (1984) and Academic Word List (AWL) by Coxhead (2000). Both lists are said to contain words that are not found in the general word list, but instead are often found in academic texts.

However, between these two lists, the Academic Word List (AWL) is seen as more recent compared to the University Word List. This is mainly because the University Word List (UWL) has a total of 836-word families and comprises only about 9.8 percent of the 3.5 million words from the academic text corpus. While the Academic Word List (AWL) has only 570-word families (word families) and only includes 10 percent of the words found in the academic text corpus. If the two list is to be examined, although the Academic Word List (AWL) has a smaller number of word families, it actually has a wider coverage in the academic text compared to the University Word List (UWL) (Zhou, 2010).

Apart from that, the principle of word selection in the University Word List (UWL) is seen as inconsistent and has many weaknesses. The need for a new list of academic words has been stated by Coxhead (2000) in his article on Academic Word List (AWL) in the following passage:

“...as an amalgam of the four different studies, it (the UWL) lacked consistent selection principles and had many of the weaknesses of the prior work. The corpora on which the studies were based were small and did not contain a wide and balanced range of topics.”

Zhou (2010) states that the words in the Academic Word List (AWL) are selected by taking into account the large corpus size in the written academic text and the words selected must meet the following criteria:

- a) Found in academic texts from the four divisions of the academic faculty: Arts, Commerce, Law and Science.
- b) Appears more than 100 times in the entire corpus.
- c) At least 10 times for each selected academic faculty division
- d) It is not a word listed in the General Word List by Michael West.

Academic Word List (AWL) is commonly used as a reference for students preparing to learn English at the university level. It does not include Content Vocabulary for certain subjects where students cannot avoid from learning it. As a university lecturer, Coxhead is aware of the difficulties faced by students in mastering the vocabulary needed for the purpose of writing scholarly assignments. It also focuses on non-specific vocabulary where students from various disciplines need to master in order to produce coursework writing in a structured and appropriate manner (Coxhead, 2000).

Based on the strength of the Academic Word List (AWL) developed by Coxhead (2000) it was accepted as a new standard and has been adopted in English language education for over a decade (Davies & Gardner, 2013). However, the study on the need for a new academic vocabulary list does not end at the Academic Word List by Coxhead alone. Davies and Gardner (2013) have reviewed the existing academic vocabulary list to further improve and produce a new academic vocabulary list (NAVL). Davies and Gardner (2013) have set the following criteria in word selection to be listed in the New Academic Vocabulary List (NAVL):

- a) The selected words are determined using the root word (lemma) and not the word family.
- b) The new academic vocabulary list must be based on a large English academic corpus, representing and

covering a wide range of important academic disciplines.

- c) A list of new academic vocabulary must also be obtained statistically from a large and balanced corpus size consisting of both academic and non-academic material.
- d) Academic materials in the larger corpus as well as non-academic materials to be compared must represent contemporary English rather than material dated 20-100 years ago.
- e) A new list must be tested on both academic and non-academic corpora, or obtained from a corpus-derived list to determine its validity and reliability as a core list of academic words.

In this study, the researcher has selected the academic vocabulary in the New Academic Vocabulary List (NAVL) developed by [Davies and Gardner \(2013\)](#) to be used as a test construction instrument conducted on the selected sample.

2.4. Receptive and Productive Vocabulary

Most renowned researchers agree to divide vocabulary knowledge according to its scope of use in writing, reading, listening and speaking skills ([Mohamad Maskor, Harun, & Maimun, 2016](#)). Vocabulary knowledge can also be divided into productive and receptive vocabulary knowledge ([Henriksen, 1999; Laufer, 1998; Laufer & Paribakht, 1998; Nation, 2001; Read, 2000; Schmitt, 2014](#)) in [Mohamad Maskor et al. \(2016\)](#). However, [Harmer \(2001\)](#) has identified vocabulary knowledge as active vocabulary which students can use and pronounce orally. On the other hand, passive vocabulary is classified as words that students know through recognition but unable to pronounce or produced through writing ([Mohamad Maskor & Baharudin, 2016](#)).

Receptive vocabulary is words used to identify and understand material when reading or listening. Vocabulary used productively in speech and writing activities is termed as productive vocabulary ([Abdullah, 2012](#)). According to [Mohamad Maskor and Baharudin \(2016\)](#) productive vocabulary is the process of expressing vocabulary knowledge in writing ([Mohamad Maskor et al., 2016](#)).

According to [Zhou \(2010\)](#) one of the important dimensions in vocabulary knowledge is knowing both receptive vocabulary and productive vocabulary. Receptive vocabulary refers to a person's ability to understand a word when heard or seen, while productive vocabulary knowledge is a person's knowledge to produce a word when speaking or writing. In general, a word is known receptively at the beginning, and after a good learning and understanding process it can later be used productively. In conclusion, receptive vocabulary can be called passive and productive vocabulary is referred as active.

2.5. An Overview on the Related Past Studies

There are several studies done previously regarding academic vocabulary (KKA). These studies differ in terms of objectives and sampling. Some focus on the level of mastery of academic vocabulary, receptive vocabulary and productive vocabulary, strategies to learn academic vocabulary, the relationship between general vocabulary mastery with academic vocabulary and so on.

Among the studies related to the academic vocabulary of Arabic is a study by [Makhoul \(2017\)](#) which examines the development of receptive and productive Arabic academic vocabulary knowledge for native speakers at the secondary school level in Palestine. In this study, Makhoul has developed a list of Arabic academic vocabulary (AAV) by implementing the required academic word mapping that includes the informative texts contained in the textbook. A total of 600 samples from Arabic speakers who are students at the secondary level covering different areas of Israel (Palestine) consisting of three sub-groups of Arabs were selected namely; general Arab, Druze and Bedouin communities. Two academic vocabulary assessment tests consisting of receptive tests and productive tests were used as the instruments to achieve the objectives of the study. The results of the study found that there were significant differences between different Arab groups, namely it recorded the Bedouin group got the lowest score compared to the general Arab community and the Druze. While in terms of differences in academic vocabulary

knowledge according to age level, there is an increase in receptive academic vocabulary knowledge at a higher age, but not on productive academic vocabulary knowledge. The results of the study also found that there is a gap in differences among students in terms of receptive and productive academic vocabulary.

In addition to Makhoul's study, [Abdullah \(2012\)](#) have conducted a study on the mastery of English academic vocabulary among undergraduate students at MARA University of Technology (UiTM). A sample of 456 students from semesters one to six was selected from fifteen different undergraduate degree programs. The results of the study found that almost two-thirds of the sample of UiTM students failed to achieve the level of vocabulary mastery required to read the text efficiently and failed to infer the meaning of words that are rarely found.

[Ljiljana, Vera, and Branka \(2020\)](#) have studied the effectiveness of the 'flipped classroom' approach for English language for academic purposes (EAP) in testing the effectiveness of understanding academic vocabulary. This approach is compared against the conventional teaching approach. This quantitative analysis states that the 'flipped classroom' approach indicates a higher effectiveness than the conventional approach. The findings also presented that the use of the 'flipped classroom' approach shows the best practical example in strengthening the understanding of academic vocabulary in English language courses for academic purposes (EAP).

In addition, there is also a study by [Cunningham and Moore \(1993\)](#) who focuses on the contribution of academic vocabulary comprehension to answer comprehension questions in his study entitled "The contribution of understanding academic vocabulary to answering comprehension questions". A total of 106 samples consisting of level four, five, and six students from Midwestern Primary School were selected to answer the set of comprehension questions. Student scores from the Iowa Test of Basic Skills (ITBS) test which is a vocabulary sub-test and an informal measure of informal academic vocabulary were also collected. The results of the study found that there was a difference between the mean showing that academic vocabulary in comprehension questions had a significant decrease in question-and-answer performance.

The next study is from [Huong \(2018\)](#) titled "A Survey on academic vocabulary learning strategies by EFL university studies". The objective of this study was to investigate English language vocabulary learning strategies among EFL university students. A total of 132 students from EFL University who took specialization in English translation and pedagogy were selected as the study sample. The results of the study found that students were more likely to use online dictionaries and other applications than to use cognitive strategies in academic vocabulary learning.

[Gustafsson \(2013\)](#) in their study "Master level writing in engineering and productive vocabulary: What does measuring academic vocabulary levels tell us?" has studied the level of mastery of productive vocabulary in writing for the master's degree specializing in various branches of engineering. Its main purpose is to measure the use of English academic vocabulary introduced by [Coxhead \(2000\)](#). It was tested on first and second year students studying Swedish Master of Science as well as international students. The findings shows that second year students have mastered academic vocabulary in writing but unfortunately their performance is lower than first year students. Therefore, this study suggests that vocabulary development should be focused on vocabulary according to a particular discipline or field rather than focusing on general academic vocabulary ([Gustafsson, 2013](#)).

Ahmed Masrai conducted an academic vocabulary size test named as the academic vocabulary size test (AVST) which aims to measure the level of academic vocabulary knowledge of non-native English language speakers. The test contains a total of 114 English academic vocabulary developed by [Coxhead and Nation \(2001\)](#) which is academic vocabulary (AWL). The vocabulary is arranged according to frequency in the AWL list by column from left to right, i.e., the first column is the word that is most frequently repeated, and so on until the sixth column. The study results clearly show that vocabulary learning from AWL is highly dependent on frequency effects.

A study by [Taghizadeh and Khalili \(2020\)](#) titled "Predictive role of general and academic vocabulary knowledge in academic reading comprehension" was conducted to identify the relationship between general vocabulary and academic vocabulary for academic reading performance in English language. The study sample was

120 undergraduate engineering students at the University of Science and Technology Iran. General vocabulary and academic vocabulary tests were used as instruments in this study. The findings found that improvements in the comprehension of general vocabulary and academic vocabulary are able to enhance the performance of reading tests and students' level of comprehension. Moreover, based on the test scores, there is a close correlation between academic vocabulary mastery with general vocabulary (Taghizadeh & Khalili, 2020).

Based on the studies found, mastery of academic vocabulary is seen to have gained the attention of researchers. Unfortunately, the study of Arabic academic vocabulary has not been widely explored, especially in Malaysia. Most studies related to vocabulary revolve around the daily vocabulary and is less focused on academic vocabulary.

3. METHODOLOGY

This study is basically a survey study which aims to identify and review the level of mastery of AAV among Arabic language students in Malaysia's public universities. To describe the level of achievement of Malaysian Public Universities students in AAV mastery, it uses a descriptive approach. In accordance with the objectives of the study which is to identify the level of mastery of students' AAV, researchers use quantitative methods in collecting and analysing data. From the sampling aspect, this study uses a purposive sampling technique that targets directly to the study sample group which has been identified in advance. A total of 126 samples from six public universities in Malaysia were selected as the study sample. It consists of 43 male students and 83 female students studying in semester five to semester eight, majoring in Arabic at their respective universities. The respondents for this study segregated by university are as follows:

- a) 21 respondents studying Bachelor of Arabic Communication Professional from Universiti Teknologi MARA (UiTM).
- b) 21 respondents studying Bachelor of Humanities (Arabic Language and Literature) from International Islamic University (IIUM).
- c) 21 respondents studying Bachelor of Arabic Language Education Sultan Idris University of Education (UPSI).
- d) 21 respondents studying Bachelor of Arabic Language and Linguistics from the University of Malaya (UM).
- e) 21 respondents studying Bachelor of Arts (Foreign Language) specialization in Arabic from Universiti Putra Malaysia (UPM).
- f) 21 respondents studying Bachelor of Islamic Studies (Arabic Studies and Islamic Civilization) from Universiti Kebangsaan Malaysia (UKM).

There are three instruments used for this study:

a) *List of Academic Vocabulary*

In this study, the researchers used 50 AAV for the construction of receptive and productive vocabulary tests. Both tests use the same vocabulary as their test. The selection of academic vocabulary in this test is based on the Academic Vocabulary List (AVL) proposed by Davies and Gardner (2013). This 50-word selection represents 10% of the 500 AVL. The researcher has selected 50 words from the list based on the common usage by Arabic language students in Malaysia. All of these words were later translated into Arabic and underwent a revision process. The words selected consisted of 38 nouns and 12 verbs.

Here are 50 lists of academic vocabulary tested in this study:

Table-1. List of AAV used in RVL and PVL.

Word group	Word	Number of words
Verbs	وَفَّرَ، تَحَكَّمَ عَلَى، شَارَكَ، اتَّبَعَ، أَبْرَزَ، رَكَّزَ، تَرَابَطَ، نَالَ، وَصَّعَ، أَدْمَجَ، يَسْمُحُ، اسْتَكْشَفَ	12
Nouns	اِرْتِدَادٌ، مَعْقَدٌ، اتِّبَاعٌ، ضَرْوَرِيٌّ، اِمْتِكَانِيَّةٌ، مَحْتَمَلٌ، اِجْتِمَاعِيٌّ، مُسْتَوَىٌّ، دِرَاسَةٌ، مُتْرَايِدٌ، مَلْحُوظٌ، حَالٌ، اَسَاسِيٌّ، فَرِيدٌ، مَادَّةٌ، سُوْكَانٌ، اسْتِمَارَةٌ، فَرْقٌ، نَشَاطٌ، مَبْدَأٌ، بَيِّنَاتٌ، اِدَارَةٌ، كَاتِبٌ، لُغَةٌ، اِنْتَاجٌ، طَبِيعَةٌ، قِيَاسٌ، دَعْمٌ، اِعْتِقَادٌ، عُنْصُرٌ، وَطِيفَةٌ، مُشَارَكَةٌ، عَرَضٌ، اَثْرٌ، بَاجِتٌ، خَلَلٌ، اَصْلٌ، اَصْلٌ، حَصِيْلَةٌ	38
Total		50

Source: Adapted from Davies and Gardner (2013)

b) Receptive AAV Test (RVL)

This test aims to measure the level of AAV receptive mastery by the respondents. The questions in this section are formed by combining 3 question items with 6 answer choices. The test format is in the form of matching the definition or description of the meaning of the word. The construction of this question was adapted according to the test format developed by Paul Nation in 1983 and 1990 and redeveloped by Schmitt, Schmitt, and Clapham (2001). It aims to measure students' academic receptive vocabulary knowledge. Through this test, the respondents were asked to match the definition and meaning of the words listed with the exact item. Each correct answer is given one mark. The full marks for this section are 50 marks, representing 50 questions.

The following is an example of a test suggested by Schmitt (2000):

- access
- gender _____ male or female
- implementation _____ study of mind
- license _____ entrance or way in
- orientation
- psychology

The following are examples of receptive questions used in this test. The form of question presentation has been slightly modified to facilitate students' understanding of the requirements of the question:

Table-2. Sample of receptive vocabulary question.

الرقم	الكلمة	المعنى
1.	وَفَّرَ	أَوْضَحَ شَيْئًا وَأَطَهَّرَهُ
2.	أَبْرَزَ	أَدَامَ الشَّيْءَ وَأَثْبَتَهُ
3.	رَكَّزَ	أَنْشَأَ شَيْئًا غَيْرَ سَبُوقٍ إِلَيْهِ
		كَثَّرَ شَيْئًا وَوَسَّعَهُ
		قَدَّمَ الشَّيْءَ إِلَى غَيْرِهِ وَقَرَّبَهُ إِلَيْهِ
		إِهْتَمَّ بِأَمْرٍ وَأَكْدَهُ

Source: Adapted from Schmitt et al. (2001)

c) Productive AAV Test (PVL)

This test aims to measure the level of AAV productivity of the respondents. This test format is in the form of filling in the blanks with some guided help. The construction of this question has fully followed the test format developed by Paul Nation in 1983 and 1990 and redeveloped by Schmitt et al. (2001). It aims to measure students' academic vocabulary knowledge. Respondents are asked to fill in the blanks with appropriate AAV and assisted by a few letters at the beginning of the word. Each correct answer is given one mark. The full marks for this section are 50 marks, representing 50 questions.

The following is an example of a PVL test proposed by Schmitt (2000):

The ar_____ of his office is 25 square meters.

They ins_____ all products before sending them out to stores.

The following are example of productive questions used in this receptive exam

Table-3. Sample of productive vocabulary question

المعنى	الرقم
وَقَدْ _____ الْمُدْرَسُ لِلطُّلَابِ وَقَفًا لِلنَّقَاشِ.	.1
أَظْ _____ الطُّلَابُ مَهَارَتَهُمْ فِي الْكَلَامِ فِي مُسَابِقَةِ الْحِطَّائِيَّةِ.	.2
رَكَدَ _____ الْمُدْرَسُ فِي تَدْرِيْسِهِ عَلَى الطُّلَابِ الْمُتَبَدِّلِيْنَ.	.3
تَرَاجَعَ _____ الشَّرْكَاتُ الْمَحَلِّيَّةُ مَعَ الشَّرْكَاتِ الْعَالَمِيَّةِ لِيُنَادِيَ لِيُنَادِيَ تَفَاعُلَ الْعَلَامَةِ التَّجَارِيَّةِ.	.4
يُكَافِئُ الطُّالِبَ فِي طَلْبِ الْعِلْمِ لِيُحَقِّقَ _____ النَّحَاحَ.	.5

Source: Adapted from Schmitt et al. (2001)

The data collection process was conducted at the six universities during their respective lecture sessions. The main reason of conducting the test within the official lecture session is to prevent respondents from dropping out. Respondents were informed in advance by the lecturer about the tests. The test was handled in part by the researcher himself and also by the Arabic language lecturers at the respective universities involved. Respondents were given an hour and thirty minutes to answer the entire test questions. There is also a time interval provided by the researcher in between the receptive and productive tests. The receptive test was performed first and the productive test was conducted two weeks after. This is to ensure that students are not influenced by receptive test answers when they answer the productive tests as both tests use 50 of the same targeted vocabulary.

Test answers by the students were checked and marked by the researcher himself. All questions carry 1 value point. 50 receptive questions and 50 productive questions is combined to form 100 point. In terms of scoring the receptive questions, the marks are given based on the correct choice of answers. While the grading of productive questions on the other hand is based on the words answered by students and the researcher only determines 1 point for the correct answer and the wrong answer gets 0 point.

The study data represented by the test scores of 126 students were analysed using Microsoft Excell 2016 to obtain the percentage and mean value. Researchers also used SPSS v25 which includes 3 statistical tests. The first test, the Shapiro-Wilk test, was used to test the assumption of data normality while the second test, the Kruskal-Wallis test, was used to identify if there is a significant difference in AAV mastery among students between the six public universities. In addition, the third test, the Post-Hoc Bonferroni test, was used to see if there were significant differences in AAV mastery between universities in pairs.

4. RESULTS AND DISCUSSION

Results of the receptive and productive AAV mastery among students in six public Malaysian universities can be summarized as below:

Table-4. Differences between receptive and productive AAV mastery among students in six public Malaysian universities

University	Receptive	Productive	Mean
UPM	44	74	59
UiTM	51	57	54
UPSI	49	71	60
UM	73	80	76
UKM	45	67	56
UIAM	81	94	88
Total	57	74	66

The table shows that there is a difference in AAV achievement between receptive and productive tests for all 6 Malaysian Public Universities. It clearly identifies that all public universities showed higher achievement for

productive tests than receptive tests. The overall achievement average for the receptive test was 57%. Productive testing's achievement is higher at 74% for all public universities.

To identify whether there is a difference between receptive and productive AAV mastery among students in six public universities, hypothesis testing was conducted.

Hypothesis null: There is no difference between the mastery of receptive AAV among students between six public universities.

The distribution of study data was tested whether the data used were distributed normally or vice versa. If the distribution of the analysed data is normal, then the parametric test involving one-way ANOVA test can be used to investigate the hypothesis. The assumption of normality using the Shapiro-Wilk test is carried out on each dependent variable according to the respective university group. The findings of the Shapiro-Wilk test on each group regarding receptive AAV mastery variables showed that the three groups had a p-value < 0.05 , thus proving that the assumption of normality was not met. Therefore, the proposed analysis is to use a non-parametric test, namely the Kruskal-Wallis Test.

Results of the Shapiro-Wilk test can be summarized as below:

Table-5. Shapiro-wilk test (receptive AAV)

Group	Shapiro-Wilk		
	Statistic	dk	Sig.
UPM	0.904	21	0.042*
UiTM	0.979	21	0.916
UPSI	0.933	21	0.161
UM	0.857	21	0.006*
UKM	0.886	21	0.019*
UIAM	0.920	21	0.085

Note: *value of $p < 0.05$.

The analysis results of the Kruskal-Wallis Test showed that there was a significant difference in the mastery of receptive AAV among students between the six Malaysian Public Universities, $(5) = 62,068$, $p < 0.001$. Further analysis using the Post-Hoc Bonferroni Test showed that there was a significant difference in the mastery of AAV receptive between groups of UPM and UM students ($p < 0.001$), UPM and IUM ($p < 0.001$), UKM and UM students ($p < 0.001$), UKM and IUM ($p < 0.001$), UiTM and UM ($p = 0.001$), UiTM and UIAM ($p < 0.001$), UPSI and UM ($p = 0.046$), as well as UPSI and UIAM ($p < 0.001$). These results indicates that the null hypothesis is rejected.

Results of the Kruskal-Wallis Test can be summarized as below:

Table-6. Comparison of receptive AAV mastery between six public universities.

University	N	Mean rank	χ^2	dk	Sig.
UPM	21	37.40	62.068	5	< 0.001
UiTM	21	47.45			
UPSI	21	58.00			
UM	21	91.36			
UKM	21	41.81			
UIAM	21	104.98			

H3a: Hypothesis null: There is no difference between the mastery of productive AAV among students between six public universities.

The distribution of study data was tested to reveal whether the data used were distributed normally or vice versa. If the distribution of the analysed data is normal, then the parametric test involving one-way ANOVA test can be used to investigate the hypothesis. The assumption of normality using the Shapiro-Wilk test is carried out on each dependent variable according to the productive university group. The findings of the Shapiro-Wilk test on

each group regarding productive AAV mastery variables showed that the three groups had a p-value <0.05 , thus proving that the assumption of normality was not met. Therefore, the proposed analysis is to use a non-parametric test, namely the Kruskal-Wallis Test.

Results of the Shapiro-Wilk test can be summarized as below:

Table-7. Shapiro-wilk test (productive AAV)

Group	Shapiro-Wilk		
	Statistic	dk	Sig.
UPM	0.839	21	0.003*
UiTM	0.960	21	0.516
UPSI	0.953	21	0.387
UM	0.913	21	0.063
UKM	0.840	21	0.003*
UIAM	0.540	21	$< 0.001^*$

Note: *value of $p < 0.05$.

The results of the analysis of the Kruskal-Wallis Test showed that there was a significant difference in the mastery of productive AAV among students between six Malaysian Public Universities, $(5) = 62,068$, $p < 0.001$. Further analysis using the Post-Hoc Bonferroni Test showed that there was a significant difference in the mastery of productive AAV between groups of students UiTM and UPM ($p = 0.028$), UiTM and UM ($p = 0.003$), students UiTM and IIUM ($p < 0.001$), UKM and IIUM ($p < 0.001$), UPSI and IIUM ($p < 0.001$), and UPM and IIUM ($p = 0.011$). These results indicates that the null hypothesis is rejected.

Results of the Kruskal-Wallis Test can be summarized as below:

Table-8. Comparison of productive AAV mastery between six public universities.

University	N	Mean rank	χ^2	dk	Sig.
UPM	21	67.50	50.368	5	< 0.001
UiTM	21	32.52			
UPSI	21	51.95			
UM	21	74.48			
UKM	21	49.14			
UIAM	21	105.40			

5. CONCLUSION

The results of this study show the different levels of mastery between 6 universities, both in receptive and productive tests. Overall, all universities see a higher achievement in productive test compared to receptive test. Based on the mean of receptive and productive tests, IIUM students were found to have the highest level of mastery, followed by students from UM, UPSI, UPM, UKM and UiTM. Statistical tests show a significant comparison of inter-University achievement in both receptive and productive tests. The achievement of IIUM students (who ranked first) for example was found to be significantly different from the achievement of students UiTM, UPM, UIA and UPSI. The achievement of UM students (who are in second place) also differs significantly from the achievement of UPM, UKM and UiTM students.

The findings of this study have shown a similar pattern of achievement in all universities. All universities show higher achievement in productive testing than receptive testing. These results differ greatly from the opinions of scholars as well as the findings of previous studies which typically proves that productive testing is more difficult than receptive testing (Abdullah, 2012; Makhoul, 2017). Researchers are of the opinion that this is due to several factors.

The first factor is the student language study factor. This study was conducted on students who learned Arabic as a third language. This is in contrast with the two previous studies, the study by Abdullah (2012) is a study of the vocabulary of academic English language conducted on Malay students who undertake English as a second

language, while the study by Makhoul (2017) is the study of vocabulary Arabic language conducted on students who are native speakers of Arabic.

The second factor is the type of vocabulary being studied. Zaini (2015) and Husaini and Mohamad (2020) have conducted tests on the vocabulary mastery of Arabic language students in Malaysia in both receptive and productive form. The results of their study shows that the students' receptive vocabulary is better than productive vocabulary. However, the vocabulary conducted in the study is in the form of regular vocabulary and is considered easier to master compared to academic vocabulary that has a lower frequency in daily use.

Furthermore, the higher achievement for productive test compared to the receptive test in this study can be attributed to the form factor of the RVLТ receptive test used. To match the meaning of academic vocabulary in RVLТ receptive questions, researchers had to use low frequency words (in terms of usage), parallel with the aim of explaining the definition of the academic vocabulary tested. Similarly, in RVLТ questions, students are provided with a choice of answers (sentences for meaning matching) that have a greater number of words than the smaller number of words in the productive test. Therefore, the difficulty level of the RVLТ test is seen to be higher for the students and caused their achievement to be lower than the PVLТ test.

In addition, according to the productive test format used in this study, the answers for the academic vocabulary tested in the test set are aided by some prefix letters as hints, where indirectly, it has helped students to guess the tested vocabulary more easily. Thus, on the basis of these factors, it may have led to higher student achievement results in the PVLТ test compared to the RVLТ test in the AAV mastery study conducted.

Overall, the findings of this study have provided an overview of AAV student achievement in Malaysian Public Universities. It can be seen that IIUM and UM show a better performance compared to the other four universities. Both of these universities are among the institutions that have long offered Arabic language academic programs compared to other universities such as UiTM. Other factors deemed to have contribute to this difference includes the existence of native speakers at the university, syllabus factor, duration of study, duration of experience of a university offering Arabic language programs and more.

Among the most important findings of this study is the need for Arabic language researchers to explore a more detailed analysis with regard to the academic vocabulary of Arabic language. Among the studies that can be conducted are the construction of a list of Arabic academic vocabulary, AAV teaching and learning, the construction of AAV tests, AAV receptive and productive tests through other instruments such as reading comprehension (receptive) and academic writing / presentation (productive). It is hoped that the study will be able to bring to light a more recent findings and subsequently help to improve AAV mastery for students who are studying Arabic language at the universities.

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