

# EFFECTS OF DUAL-LANGUAGE PROGRAMME (DLP) ON THE USAGE OF ENGLISH ADJECTIVES AT PRIMARY SCHOOL LEVEL IN MALAYSIA

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*Received: 31 March 2020*

*Accepted: 26 June 2020*

*Online First: 1 September 2020*

## ABSTRACT

*Students from selected Malaysian schools are currently learning Mathematics and Science in English under the DUAL Language Programme. They are exposed to additional hours of English compared to non-DLP ones. This paper investigates the extent to which the extra hours of English language exposure assist primary school students in grasping the morphological structures of English adjectives. The cross-linguistic differences in Malay and English could be one of the main reasons students face difficulties in acquiring English adjectives. Data were collated from two different Year 2 classes involving a DLP and a non-DLP group. Vocabulary Size Test (VST) measured the use of base form of adjectives while Comparative Adjective TEST were used for the comparative ones. Test scores were analysed to gauge the possible significant difference between the control and the experimental groups. The findings reveal that the mean scores for DLP group are not significantly higher than non-DLP group for both tests.*



**Keywords:** *dual language programme, adjectives, primary schools*

## INTRODUCTION

The English language is no longer used within specific circles as its usage has become increasingly global. As Firth (1996) emphasizes, English is a contact language between persons who do not share a common native tongue or a common culture, and for whom it is the chosen foreign language of communication. As the English language is currently used worldwide, being competent and having a bigger size of lexical items is indeed tremendously beneficial. Based on Kachru's (1992) three circles model, Malaysia is located in the outer circle where the language has been used as a second language. English has become widely used by people from different sectors and diverse social backgrounds. Hence, to master the language, a proper educational system needs to be in place as it is one of the most crucial methods in increasing English competency.

Proficiency in the English language involves mastering various skills such as reading, writing, speaking and listening and the core catalyst in being effective in using all those skills is having vast vocabulary items. Once a person has a large repertoire of English words stored in his brain, the process of learning will be easier since it leads to an independent process of acquiring the language. Mokhtar *et al.* (2010) emphasize that the ideal vocabulary size for university students is 17, 000 word families of noun, adjective, verb, and adverb.

In ensuring that a second language learner has no difficulty in learning and using English as he becomes older and continues his studies at the tertiary level, early exposure to the language is undoubtedly essential. The implementation of the teaching and learning of Mathematics and Science in English called 'Pembelajaran dan Pengajaran Sains dan Matematik dalam Bahasa Inggeris' (PPSMI) started in 2003 and ended in 2012. Though the policy aimed to raise the standard of English proficiency and keep Malaysians abreast with science and technological knowledge, PPSMI raised a lot of issues when some parents and teachers did not agree with its implementation. Selamat, Esa, Saad, and Atim's (2011) research findings suggested that PPSMI should be stopped mainly due to the shortage of

teachers who have mastered the English language in teaching of mathematics and science. The learning of the two subjects in English did not help students to be competent in the language due to teachers' tendencies to code-switch when they were teaching. Though code-switching can be part of a teacher's repertoire of teaching techniques, its excessive use may limit learners' much needed exposure to the target language. This notion of over-reliance on code-switching is reiterated by Isahak *et al.* (2008) in a study on 3903 primary five students where they found that 85% of the teachers code-switched the English language with their mother tongue (cited in Suliman, Mohd Noor and Md. Yunus (2017). The concern that many students are unable to speak and write fluently in English has led the government into implementing yet another policy called 'To Uphold Bahasa Malaysia, To Strengthen Bahasa Inggeris' (MBMMBI). The Ministry of Education (MoE) (2015) has introduced a new programme under this policy known as Dual Language Programme (DLP) with the aim to enhance the acquisition of the language among pupils in primary and secondary schools. The implementation of this programme with a specific investigation on the usage of the English adjectives is the focus of this paper.

## **DUAL-LANGUAGE PROGRAMME (DLP)**

The process of formulating and implementing a national education policy is complex as there are numerous variables to be considered based on the nature of the country. Bell and Stevenson (2006) describe education policy as 'a dynamic process in which the nation state exerts power and deploys resources in conjunction with regional, local and even institutional agencies'. In the Malaysian scenario, education policy has been an intensely discussed issue especially in relation to the teaching of Science and Mathematics. DLP requires students who are involved in the programme to learn the two subjects in English. On the other hand, the rest of the students in national and national vernacular schools use Malay or their native language of either Mandarin or Tamil as the medium of instruction. Only Standards 1 and 4 students are involved in the implementation of this programme at primary schools while only Form 1 students are involved at secondary level. The previous implementation, PPSMI, differed from DLP in this term; all students had to participate in it.

MoE's (2015) four requirements for a school to implement DLP are;

- i. A school must have adequate sources
- ii. The teachers must be ready to implement DLP
- iii. There is demand and support from parents
- iv. The school has good achievement in the Malay language.

Suliman, Mohd Noor, and Md. Yunus (2017) mention in their study on DLP that there are three main objectives of this implementation. They are:

- i. Providing knowledge to the students so that they are ready to compete with other graduates as well as to assist students in employment.
- ii. Assisting and capturing students' enthusiasm of STEM education at the tertiary level. (STEM refers to Science, Technology, Engineering, and Mathematics).
- iii. Allocating more hours of learning the English language so that the students can improve English proficiency.

Globally, DLP is not a new language immersion programme because it is implemented in other countries such as Japan, Finland, and United States of America (US). As for the latter, Steele *et al.* (2017) report that the US has a similar programme for kindergartens all the way to high school level with participants speaking, among others, Russian and Spanish as their mother tongues. It results in rapid improvement in mastering English and aids students well at the tertiary level. The same stand is applied in Malaysia when the MoE implements DLP in hope to prepare students with the adequate knowledge of English basically because most reference books in colleges and universities are in the language. Noriza *et al.* (2011) highlight that their research on teachers as well as lecturers indicate that the majority of them provided positive feedback and in terms of readiness, 65% of them were ready to teach Science and Mathematics in English. From the perspective of students, a study on DLP which was conducted by Tuah and Mohini (2010) found that most students supported the implementation of the programme on the basis of employability.

The same nature of implementation is also practiced in countries in Europe and North America where foreign languages are utilised to teach and learn non-language subjects. This implementation is known as Content-

Based Language Instruction and Immersion (CBLI). North America and Europe have implemented CBLI for a few decades now and the results have been surprisingly impressive. For instance, Aziz and Maarof (2015) highlight the study conducted in Finland where the researchers made a comparison between students who were involved in CBLI and those who were not. Their way of answering a question is found very different whereby CBLI students answered with more justifications provided and their choice of lexis kept changing. The study shows evidence that by participating in CBLI the students' size of lexical items expanded. Other than that, CBLI students were found to interact more with teachers in the classroom by voicing out their opinions and answering questions voluntarily.

The emphasis of this current study is to see how the exposure to the English language affects the vocabulary size of students. In a related study, Harji, Balakrishnan, Bhar, and Lecthumanan (2015) explored the vocabulary levels of Malaysian undergraduates. Their study focused on a few variables such as year of study, gender and courses. The findings showed that students who majored in Law and IT have larger vocabulary size compared to those majoring in Management. They further elaborated that Law and IT students were more exposed to the English language and their lexical size kept increasing as they used different words according to different contexts and situations. This finding strongly suggest that exposure to the language aids students in improving English proficiency.

This study focuses on DLP as a strategy used by the Ministry of Education to assist students to widen their lexicon. Aitchison (2012) defined 'mental lexicon as human word-store or mental dictionary' thus, lexical size is defined as the vocabulary size one has in their brain. Having a larger size of English words is beneficial since the English language has become an international language where most people speak using it around the globe and it is advantageous for an individual to use the language as a skill to convey any messages to the society. Nation (1990), as cited by Mokhtar *et al.* (2010) mentioned that learners need to be at approximately 2,000- and 3,000- word level to communicate, while 5,000- words will assist them in the classroom. Words from the University Word List (UWL) will help students understand their textbooks and academic materials at the tertiary level. The UWL is 'a word list created by combining four pre-existing lists, two based on corpora and two based upon frequently annotated words by students in textbook (Wadden, Ferreira, & Rush, 2016)'.

Vocabulary, in general, comprises numerous word classes. Nevertheless, the main focus of this study is limited to adjective whereby it attempts to ascertain whether early exposure of English language could improve the use of adjectives among students. It is broadly observed in some studies (e.g. Jalaluddin, Awal, and Bakar (2008) and Lotfie, Kadir, and Pilus (2017)) that the distinctive linguistic features between Malay language and English language cause students to face difficulties to grasp the rules and be fluent in the English language, the same difficulty is hypothesized in the learners trying to acquire English adjective that have morphological and metalingual differences from Malay. As learning vocabulary is important for language literacy, Mohd Asraf, Abdullah and Md Zamin (2016) in their study on the different performances between boys and girls, advocated that early exposure to reading should start even at primary level.

## **VOCABULARY ACQUISITION STRATEGIES**

As highlighted by Schmitt (2000) ‘vocabulary acquisition is incremental in nature’. And therefore, students cannot grasp all the English lexical items in a short period of time. Schmitt emphasizes that the students should acquire vocabulary gradually and the process of acquisition should start from an early age. Whatever their starting point is, once the students are enrolled into colleges and universities, they are expected to have a certain quantity of vocabulary to aid their process of learning. In a study by Bahns and Eldaw (1993), they found that students continued to improve and become more native-like as the day passed and their lexical items keep growing each day. They emphasized that ‘word-knowledge type took time to develop’, (Bahns & Eldaw, 1993, p.118). It can be inferred that there is indeed a difference in writing as well as speaking between students who are exposed to English in their early age from those who are not.

Schmitt (1997) listed out approximately 54 strategies used in acquiring English words. The three significant categories of strategies are determination strategies (DET), social strategies (SOC) as well as memory strategies (MEM). In brief, DET is related to intrinsic motivation as the students themselves decide to learn and make an effort to acquire lexical items. The strategies in SOC involve the people around the learners such as teachers and parents who play an important role in assisting them. Lastly,

MEM includes tests, the frequency of studying and also the use certain discourse such as pictures or songs to learn new words. Social strategy (SOC) echoes the nature of DLP where students are supposed to undergo early exposure of English.

Ozender (2016) and Treffers-Diller and Milton (2013) emphasized that vocabulary size is essential in all aspects of language such as reading, listening, writing as well as speaking. Tests and interviews were conducted in both research to discover students' vocabulary size. Even though the two studies were carried out in different places, their findings showed how larger vocabulary size assists students to cope with their studies, especially in their tertiary education. Similarly, Tan's and Goh's (2017) study provided the evidence that larger vocabulary size assists students in their academic endeavours especially in comprehending reading materials. According to their study which involved students in tertiary education in Malaysia, the lowest vocabulary size obtained is 4,000-word families and this was found to correlate with the students' lower reading proficiency test score of 27.5%. The finding showed that only 1.89% students from the sample have an adequate vocabulary size with the mean vocabulary size at 10,200-word families.

DLP acts as one of the strategies for students, in particular, to improve their English language competency. This study focuses on how DLP represents a strategy to broaden the adjectives correctly.

## **ADJECTIVES**

Rusiecki (1985, p.1) claimed that 'adjectives can only be defined by a set of complementary criteria, morphological and syntactic'. The simple definition of an adjective is a further explanation of a noun. This is as defined by Payne (2006, p.116) who said that an adjective is "a word that can be used in a noun phrase to specify some property of the head noun of the phrase". An adjective gives an attribute or a quality to a certain noun. Quirk (1972) explained further by giving four significant features of an adjective which are listed below:

1. An adjective can occur in attributive position.
2. An adjective can occur in predicative position.
3. An adjective can be categorised further into comparative and superlative forms.
4. An adjective also can be pre-modified by the intensifier.  
There are four basic forms of adjectives in English which are the base, comparative, superlative, as well as participial (Dahami, 2012). The distinctive feature of these forms is the suffixes. Below is an example of suffixation process causes different forms of an adjective:
  - a. Base form: Alice is a smart student.
  - b. Comparative form: Alice is smarter than Joanna
  - c. Superlatives form: Alice is the smartest in the class
  - d. Participle form: Alice has an interesting book to read.

Adjectives can also be classified into three categories of peripheral semantic types which are the physical property, human propensity as well as speed (Dixon, 2004). The examples of each type are listed below.

1. Physical property: hard, rough, and weak.
2. Human propensity: sad, generous, and proud.
3. Speed: fast, slow, and quick.

As for comparisons, the English adjectives require the use of more and most for longer words, e.g. more and most substantial. As for shorter words of one or two syllables, inflections are needed to indicate comparative and superlative forms. The comparative forms are explained by Delahunty and Garvey (2010) as follows:

1. If the base form adjective ends in
  - a. /-e/, /-r/ is added to signify comparison, e.g. nicer
  - b. vowels + consonants; /-t/, /-d/, /-g/, /-m/, and /-n/, the last consonant need to be written twice + /-er/, e.g. hotter and sadder.
2. If the base form adjective has two syllables and ends with /-y/, change the phoneme /-y/ into /-ier/ to indicate comparative adjective, e.g. prettier.



As mentioned in the earlier part of this paper, the distinctive features between Malay and English adjectives can cause difficulties for students to grasp and comprehend the English ones. Mohd Noor, Hamzah, Husain, and Che Su (2015) categorised Malay adjectives into five particular categories namely:

**Table 1: Types of Adjectives**

| No. | Adjective             | Example  |
|-----|-----------------------|--|
| 1   | Base form             | <i>Cantik</i> (pretty), <i>bagus</i> (good), <i>sedap</i> (delicious)                              |
| 2   | The addition of affix | <i>Kemerahan</i> (reddish), <i>tertinggi</i> (highest), <i>serendah</i> (as low as)                |
| 3   | Double adjective      | <i>Besar-besar</i> (huge), <i>sepandai-pandai</i> (as clever as), <i>kemerah-merahan</i> (reddish) |
| 4   | Compound adjective    | <i>Merah jambu</i> (pink), <i>ringan tulang</i> (diligent), <i>riang gembira</i> (joyous)          |
| 5   | Comparative adjective | <i>Sebesar</i> (as large as), <i>lebih pandai</i> (smarter)  |

The main difference between the Malay and English adjectives is their place in a phrase whereby a Malay adjective comes after a noun (*pelajar cemerlang*). Meanwhile, in English, an adjective precedes a noun; hence it becomes ‘excellent student’. Syntactically, this kind of difference may lead to confusion in using an adjective phrase.

The focus of this study is on base and comparative form of adjectives. The difference between English and Malay comparative adjective is the placement of an affix. In English, there are two methods of indicating comparison which are by adding the suffix –er to an adjective, together with ‘than’, as well as by adding quantifiers; ‘much’ and ‘more’ and followed by ‘than’. However, in the Malay language, the comparative adjective can be illustrated by using the quantifier; *lebih* (more) followed by *daripada* (than). Interference of the first language could be the main reason of students facing difficulty to grasp the rules of English adjective. Both of the studies by Jalaluddin, Awal and Bakar (2008) and Singh, Singh, and Ravinthar (2017) found that more than 50% of their participants were unable to answer correctly the questions on comparative and superlative adjectives. The main factor that led to their findings was the absence of similar rules in their native language, thus, the researchers deduced this as first language interference.

It should be mentioned that as the participants in this study were Standard two students, the superlative adjective was omitted in the instrument because the topic is not included in their syllabus. The hours of exposure to linguistic features may help students to acquire and comprehend relevant rules. Therefore, it was hypothesized that DLP class students might grasp the rules and excel in the test compared to non-DLP class students.

## METHODOLOGY

This study employed a mixed method design combining a quasi-experiment and content analysis. It is considered as a quasi-experiment because there were two intact groups involved in the study. The quasi-experiment helped answer the first research question while content analysis was adopted for the second research question. The experimental group in the study was the DLP group which used English as the official language of instruction in Science and Mathematics. The control group used the Malay language as a medium of instruction for the two subjects. The summary of the quasi-experiment is shown in Table 2.

**Table 2: Summary of the Quasi-Experimental Design**

| Type of group | DLP<br>(Treatment) | Test |     |
|---------------|--------------------|------|-----|
|               |                    | VST  | CAT |
| DLP class     | /                  | /    | /   |
| Non-DLP class |                    | /    | /   |

This study utilised two tests which are Vocabulary Size Test (VST), and Comparative Adjective Test (CAT). Content analysis was performed on CAT to investigate further the types of comparative adjectives used by the students.

The tests, VST and CAT, aimed to collect data to answer the two research questions, thus, both groups, the experimental and the control group were involved in the tests. Vocabulary Size Test (VST) was used to answer the first research question on the size of English adjectives of the subjects. There were 40 words scattered in a table comprising nouns, verbs, and adjectives. The students were required to circle the adjectives in the table. The total of the adjectives in the table were 20 with a total of

20 marks. This test was adapted from ESL Library (ESL Library, n.d.) and most of the words listed were based on the Standard two English syllabus (MoE, 2017). Some of the adjectives were intentionally taken outside the syllabus to test their proficiency. All the 20 adjectives in the test were attributive (Quirk, 1972) in nature.

Due to the fact that the participants were Standard two students, this study only focuses on two types of adjectives which were base form and comparative form. VST focused on the base form of English adjectives which included an attribute of a person or an object. The subjects were given 20 minutes to complete this test. The test was validated in the pilot stage of the study. The reliability index for the test is high at .81.

The second test, Comparative Adjective Test (CAT), required the students to fill in blanks with the correct comparative adjective forms by adding a respective suffix. The result of the second test aimed to answer the second research question. CAT was adapted from an educational website which is ESL Library, managed by Red River Press Inc (n.d.). The website was meant to assist both teachers and students in learning and improving their proficiency in the English language.

CAT concerned with the correct use of comparative adjectives among the students in the sentences given, and measured whether they managed to grasp the structure of comparative English adjectives or not. The base form of the adjectives were provided for each sentence. All the questions were a declarative sentence which suited their level. An example was given to assist students to recap what they have learned in class as well as to assist them to capture the structure of English comparative adjectives. An extract of the test is as follows:

A tower is (tall) \_\_\_\_\_ than a house.

The students were allocated with 20 minutes to answer this test. The test was validated during the pilot study stage of the research. The reliability of the test was checked by running Cronbach's Alpha which provided the considerably high reliability index of .74. The summary of the research design is shown in Table 3.

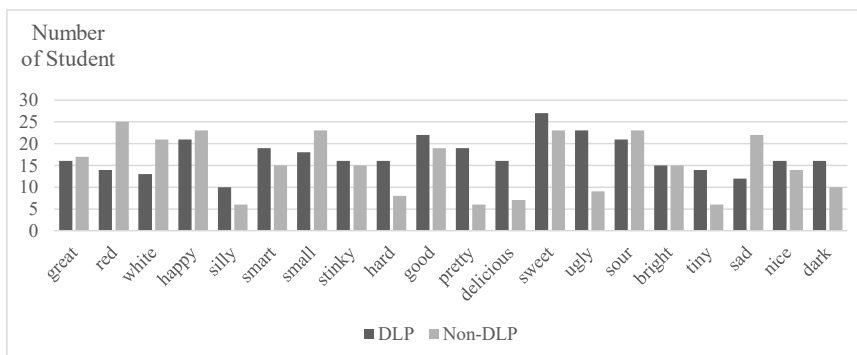
**Table 3: Summary of Research Design**

| No | Research Questions (RQ)  | Data Collection                  | Data Analysis   |
|----|--|----------------------------------|---|
| 1  | Is there a significant difference between the mean scores of DLP students' and normal class students' vocabulary size of adjectives? | Vocabulary Size Test (VST)       | Descriptive and inferential statistics – means and standard deviations, independent samples t-test  |
| 2  | Is there a difference between DLP students' and non-DLP class students' usage of comparative adjectives?                             | Comparative Adjective Test (CAT) | Descriptive analysis<br>Inferential statistics - means and standard deviations, independent samples t-test<br>Content analysis of sentences |

## FINDINGS AND DISCUSSION

### **RQ1: Is there a significant difference between the mean scores of DLP students' and non-DLP class students' vocabulary size of adjectives?**

In answering the research question, the data from the Vocabulary Size Test (VST) were analysed using independent sample t-test to compare the mean scores between experimental (DLP) and control (non-DLP) groups. The results indicate that 21 students from DLP managed to identify at least half of the adjectives listed in the table whereas for non-DLP group, there are 18 students obtained 10-20 marks this test. As can see from the graph in Figure 1, a majority of the students face no difficulty in terms of identifying attributive adjectives listed. Both groups; DLP and non-DLP indicate minimum differences in their score.



**Figure 1: Comparison Between DLP and non-DLP Groups in Identifying Adjectives**

The test was further analysed by using independent sample t-test to compare the mean scores between students from DLP and non-DLP groups. Table 4 indicates descriptively that the DLP group obtained a higher mean score than non-DLP group; (M=12.41, SD=3.83, M=11.22, SD=3.74) respectively.

**Table 4: The Comparison Mean Scores of VST between DLP and Non-DLP Group**

| GROUP   | N  | Mean  | Std. Deviation | Std. Error Mean |
|---------|----|-------|----------------|-----------------|
| DLP     | 27 | 12.41 | 3.83           | .74             |
| Non-DLP | 27 | 11.22 | 3.72           | .72             |

As presented in Table 5, even though the DLP group scored higher than non-DLP group, the result indicate that there is no significant difference in the scores for DLP and non-DLP at  $t(52)=1.15$ .

**Table 5: Independent Sample t-Test Result of VST between DLP and Non-DLP Groups**

|         | t    | Df    | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |       |
|---------|------|-------|-----------------|-----------------|-----------------------|---|-------|
|         |      |       |                 |                 |                       | Lower                                     | Upper |
| DLP     | 1.15 | 52    | .25             | 1.19            | 1.03                  | -.88                                      | 3.25  |
| Non-DLP | 1.15 | 51.96 | .25             | 1.19            | 1.03                  | .88                                       | 3.25  |

**Discussion on the Findings of Vocabulary Siza Test (VST)**

The mean scores of the test conducted indicated that the students from DLP scored higher than non-DLP group. It evidently showed that a year of DLP implementation during Standard 1 did facilitate them in improving their English language. Though encouraging, the implementation of DLP, at this point, did not stimulate students’ English adjective acquisition as much as expected because there is no significant difference between DLP and non-DLP groups inferentially. This differs from the findings in a study by Aziz and Maarof (2015) on Finnish students who were involved in Content-Based Language Instruction and Immersion (CBLI). The size of their lexical items increased compared to those who were not involved in the programme. Unlike the current study, theirs was not limited to an individuated word class or in other words it included vocabulary acquisition in general.

In the case of the findings in the current study, external factors might be the reasons why the obtained mean score between these two groups did not show much difference. For instance, there is a possibility students from the non-DLP group were getting additional English input such as tuition or extra classes after school. Besides, family educational background is the other example of an external factor which could influence the findings of this study. A study by Owusu, Amuzu and Agor (2015) provided evidence that family background and English proficiency are closely related. The study which was based at Ghana Baptist University College revealed that the students who had educated parents were doing better compared to other students because their parents had been supervising their English proficiency. Students’ background had not been a variable of this study but it may have been the confounding variable to its result.

From another perspective, the implementation of DLP might assist students' language proficiency in different areas and contexts. For example, the longer allocated hours of English exposure may assist students in terms of their acquisition of lexical items in general as well as their pronunciation of English words. Waxman and Guasti (2009) found that children acquire larger size vocabulary of a noun than adjective when there are exposed to the language in a certain period of time. Pholsward (2015) also highlighted in his study the same test was conducted to two different groups with different age. The second group which was in secondary three school scored higher in vocabulary test compared to primary six students. He deduced from the results that the longer year of exposure to the language itself facilitate learners efficiently in acquiring lexicons. In this study, the students from DLP group were exposed to the English language more than students from non-DLP group and as hypothesized earlier, the DLP students might possess larger vocabulary size in general compared to non-DLP students as it could be seen in the result, DLP obtained higher mean score than non-DLP.

In addition, DLP may not the best approach to assist students in broadening their English adjective but it might help in a different angle of English proficiency which is reading skills. Moghadam and Adel (2011) claimed that CBLI which has the same nature of DLP facilitated students in reading. Based on their analysis, it indicated a statistically significant value among students who were experiencing CBLI compared to ordinary students.

## **RQ2: Is there a difference between DLP students' and non-DLP students' use of comparative adjectives?**

Descriptive analysis was run on CAT scores and it can be seen from Table 6 that the DLP group obtained a higher score ( $M=14.00$ ,  $SD=3.22$ ) than non-DLP group ( $M=11.44$ ,  $SD=1.34$ ).

**Table 6: The Comparison of CAT Scores between DLP and Non-DLP Group**

| <b>GROUP</b> | <b>N</b> | <b>Mean</b> | <b>Std. Deviation</b> | <b>Std. Error Mean</b> |
|--------------|----------|-------------|-----------------------|------------------------|
| DLP          | 27       | 14.00       | 3.22                  | .620                   |
| Non-DLP      | 27       | 11.44       | 6.95                  | 1.34                   |

The same method of inferential statistical analysis as VST which was the independent sample *t*-test was applied. The comparison of mean scores between these two groups are presented in the table below. Table 7 indicates that there is no significant difference for CAT between DLP and non-DLP at  $t(52) = 1.73$ .

**Table 7: Independent Sample *t*-Test Result of CAT Scores between DLP and Non-DLP Group**

|         | <i>t</i> | Df    | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |       |
|---------|----------|-------|-----------------|-----------------|-----------------------|---|-------|
|         |          |       |                 |                 |                       | Lower                                     | Upper |
| DLP     | 1.73     | 52    | .09             | 2.57            | 1.48                  | -43                                       | 5.52  |
| Non-DLP | 1.73     | 36.68 | .09             | 2.57            | 1.48                  | -43                                       | 5.54  |

According to the CAT results, there were four repeated errors for both experimental and control groups. Below is the list of questions the majority of the students failed to answer correctly regardless of the group they were in.

1. His cat is \_\_\_\_\_ (fat) than my cat.
2. A fire is \_\_\_\_\_ (hot) than a cup of tea.
3. An elephant is \_\_\_\_\_ (big) than a mouse.
4. A rose smells \_\_\_\_\_ (nice) than a sunflower.

The same pattern of answer was written for the first three questions above. The majority of the students failed to write the correct answer because they added the suffix -er without doubling up the final consonant of the root words. For example, students would write \*fater instead of fatter and \*hoter instead of hotter. According to the result, the number of DLP students who could answer correctly for fat was 2, hot (2) and big (3 students) respectively meanwhile there was only one student from the non-DLP group who managed to answer all these questions correctly. The other interesting finding was discovered for the fourth question. There were six students from DLP group and three students from non-DLP group who wrote the correct answer for the comparative adjective form of nice. The remaining students wrote \*niceer which must have been based on their initial understanding that the suffix -er is added to form a comparative adjective.



## Discussion on the Findings of Comparative Adjective Test (CAT)

It can be inferred from the mean scores of CAT that the number of students from DLP group who managed to answer correctly was higher than non-DLP group. That observation is indeed encouraging in terms of the success in the implementation of DLP, specifically in helping learners to grasp the concept of the needed inflectional forms for comparative and superlative adjectival forms. It is also undeniable that the *t*-test result indicate that the difference between DLP and non DLP scores was not significant. This result could be linked to the interference of the first language, Malay, which do not have the same rules of inflections to indicate comparisons (Mohd Noor, Hamzah, Husain, & Che Su, 2015). Jalaluddin, Awal and Bakar (2008), Singh, Singh, and Ravinthar (2017) and Abubakar *et al* (2017) studies also indicate that their participants had difficulties in answering questions related to comparative and superlative adjectives. And indeed as mentioned above, it is interesting to find out that the majority of students were not able to write the correct comparative adjective for fat, hot, big and nice. The English language rely on suffixes to indicate the comparative forms for these words (Delahunty & Garvey, 2010). There is no parallel affixations in the Malay language except for the case of *-ter*, a prefix is added to a base form but only in a superlative form, not in comparative form. This occurs in such a case like *tercantik* (the most beautiful). This absence of similar rule could be one of the main reasons why students were not able to answer correctly.

## CONCLUSION

Essential findings were discovered and based on the results, of both tests; VST and CAT, the students from DLP group scored higher than the students from non-DLP group which supported the initial hypothesis; the implementation of Dual-Language Programme does support the acquisition of English adjective and also the use of the comparative adjective. One the one hand, it can be cautiously interpreted that the Dual-Language Programme was successful to a certain extent but on the other, it did not overwhelmingly facilitate students in broadening English adjective and also comprehending the different rules in English adjective.

At the beginning of the study and based on the research questions, two possible hypotheses were formed. It was hypothesized that the DLP students scored higher for both tests; VST and CAT. The second hypothesis was there was a statistically significant difference between DLP and the non-DLP mean score for both tests. The first hypothesis was accepted as the mean score for DLP students were higher for both tests. However, the difference showed in the mean score for both tests was found not statistically significant between these two groups. Thus, the second hypothesis was rejected. It has to be acknowledged that this supports Aziz (2009) and Singh, Abdul Rahman and Hoon (2010) who strongly believed that teaching Science and Mathematics in English did not assist students in improving their English proficiency yet weakening students' achievement in Science and Mathematics subject, especially in the rural area schools.

However, the results of this study could have been influenced by methodological limitations. For example, there were constraints in administering the more robust pre-test post-test experimental design. A comparison of the two test scores could have favoured DLP more convincingly. It is noteworthy to highlight that Dual-Language Programme is a new implementation which requires a lot of researches and subsequent improvements to accommodate the 21<sup>st</sup> century generation and their learning environment and most importantly, the global demands of the English language in the future.

## REFERENCES

- Ab Manan, N. A., Mohd Zamari, Z., Pillay, I., Mohd Adnan, A. H., Yusof, J., & Raslee, N. N. (2017). Mother tongue interference in the writing of English as a second language (ESL) Malay learners. *International Journal of Academic Research in Business and Social Sciences*, 7(11), 1293-1301. DOI: 10.6007/IJARBS/v7-i11/3566
- Abd. Manan, A., Ali, N. L., & Shamsudin, S. (2013). Does the Malaysian English language syllabus cater to the academic vocabulary needs of secondary school students entering universities? *Jurnal Teknologi (Social Sciences)*, 65(2), 8-14. <https://doi.org/10.11113/sh.v65n2.94>

- Abubakar, N. B., Hassan, I., Yusof, N., & Yusof, A. (2017). Native language interference in English adjectives ordering: A study of senior secondary school students in Nigeria. *Journal of Education Research*, 2(8), 152-164.
- Ab Rashid, R., Yunus, K., & Basree, S. (2017). Reforms in the policy of English language teaching in Malaysia. *Policy Futures in Education*, 15(1), 1-13. DOI: 10.1177/1478210316679069
- Abd Rahim, N. (2013). Adjective identification in television advertisements. *The Turkish Online Journal of Educational Technology*, 12(3), 15-20.
- Ahmad, H., Yunus, M. M., & Hasan, N. H. (2016, September). English vocabulary size and vocabulary learning strategies of UiTM pre-diploma students. Paper presented at International Conference on Language, Education, Humanities and Innovation, Bali, Indonesia.
- Aitchison, J. (2012). *Word in Mind: An Introduction to Mental Lexicon*. Oxford, United Kingdom: John Wiley & Sons Ltd.
- Alharbi, A. M. (2015). Building vocabulary for language learning: Approach for ESL learners to study new vocabulary. *Journal of International Studies*, 5(4), 501-511.
- Altbach, P. G. (2007). The imperial tongue: English as the dominating academic language. *Economic and Political Weekly*, 42(36), 3608-3611.
- Amer, W. M. (2013). An investigation into the difference between English and Arabic position and order of adjectives: A contrastive study with the pedagogical implications. *Red Sea University Journal*, 1(2), 21-48.
- Arnau, P. J. L. (2010). Judging the degree of adjectivization of English nouns: An investigation of the discourse behaviour of a sample of frequent premodifier nouns. *English Studies*, 91(3), 303-327. <https://doi.org/10.1080/00138381003647558>
- Asgari, A., & Mustapha, G. (2011). The type of vocabulary learning strategies used by ESL students in University Putra Malaysia. *English Language Teaching*, 4(2), 84-90. DOI: 10.5539/elt.v4n2p84

- Aziz, M., & Maarof, N. (2015). The role of English in content-based language instruction at tertiary education. *Asian Journal of Multidisciplinary Studies*, 3(2), 101-105.
- Bardaçi, M. (2016). Breadth and depth of vocabulary knowledge and their effects on L2 vocabulary profiles. *English Language Teaching*, 9(4), 239-250. DOI: 10.5539/elt.v9n4p239
- Baroni, M., & Zamparelli, R. (2010). Nouns are vectors, adjectives are matrices: representing adjective-noun construction in semantic space. In Li H. & Márquez, L. (Eds) *Conference on Empirical Methods in Natural Language Processing*. Cambridge: Association for Computational Linguistics.
- Bauer, L., & Nation, P. (1993). Word families. *International Journal of Lexicography*, 6(4), 253-279.
- Bell, L., & Stevenson, H. (2006). *Education Policy*. New York: Routledge.
- Cammara, L., & Tedick, D. (2012). Balancing content and language in instruction: The experience of immersion teachers. *The Modern Language Journal*, 96(2), 251-269. <https://doi.org/10.1111/j.1540-4781.2012.01330.x>
- Carstairs, A., & Carthy, M. (2002). *An Introduction to English Morphology: Words and Their Structure*. Edinburgh: Edinburgh University Press.
- Dahami, Y. S. (2012). Adjectives and their difficulties in English and Arabic: A comparative study. *Sana'a University Journal*, 9(1), 82-117.
- Delahunty, G. P., & Garvey, J. J. (2010). *The English Language from Sound to Sense*. Fort Collins, Colorado: The WAC Clearinghouse.
- Dixon, R. M. W. (2004). Adjective classes in typological perspective. In Dixon, R.M.W., Aikhenvald, A. I., Aikhenvald, A. Y. & Aikhenval'd, A. I. (Eds). *Adjective Classes: A Cross-Linguistic Typology*. Oxford: Oxford University Press.

- Dixon, R. M. W. & Aikhenvald, A. Y. (2004). *Adjective Classes*. London: Biddles Ltd.
- Ellegard, A. (1960). Estimating vocabulary size. *Word*, 16(2), 219-244.
- Fraenkel, J. R., & Wallen, E. N. (1991). *Educational Research: A Guide to the Process*. New York: Lane Akers, Inc.
- Firth, A. (1996). The discursive accomplishment of normality. On “lingua franca” English and conversation analysis. *Journal of Pragmatics*, 26, 237–59.
- Gedion, A., Tati, J. S., & Peter, J. C. (2016). A syntactic errors analysis in the Malaysian ESL learners’ written composition. *Journal of Applied Linguistics and Language Research*, 3(6), 96-104.
- Haddad, W. D. (1995). *Education Policy-Planning Process: An Applied Framework*. Paris: United Nations.
- Harji, M. B., Balakrishnan, K., Bhar, S. K., & Letchumanan, K. (2015). Vocabulary levels and size of Malaysia undergraduates. *English Language Teaching*, 8(9), 119-130. DOI:10.5539/elt.v8n9p119
- Isahak Haron, Abdul Latif Gapor, Md Nasir Masran, Abdul Halim Ibrahim & Mariam Mohamed Nor. (2008). Kesan Dasar Pengajaran Matematik dan Sains dalam Bahasa Inggeris di Sekolah Rendah. Retrieved August 5, 2019 from <http://profabdullah1.wordpress.com/2009/02/08/11a-kesan-ppsmi-di-sekolah-rendah>
- Jalaluddin, N. H., Mat Awal, N., & Abu Bakar, K. (2008). The mastery of English language among lower secondary school students in Malaysia: A linguistic analysis. *European Journal of Social Sciences*, 7(2), 106-119.
- Jenkins, J. (2015). *English as a Lingua Franca: Attitude and Identity*. Oxford: Oxford University Press.
- Kachru, B. (1992). World Englishes: Approaches, issues and resources. *Language Teaching*, 25(1), 1-14. DOI: 10.1017/S0261444800006583.

- Kalajahi, S. A. R. (2012). Vocabulary learning strategies and vocabulary size of ELT students at EMU in Northern Cyprus. *English Language Teaching*, 5(4), 138-149. DOI: 10.5539/elt.v5n4p138
- Koksal, M. S. (2013). A comprehensive research design for experimental studies in Science education. *Elementary Education Online*, 12(3), 628-634.
- Kurikulum Standard Sekolah Rendah Bahasa Inggeris (2017). Putrajaya: Kementerian Pendidikan Malaysia.
- Larrotta, C. (2011). Second language vocabulary learning and teaching: Still a hot topic. *Journal of Adult Education*, 1(40), 1-11.
- Lotfie, M. M., Kadir, M. A., & Pilus, Z. (2017). The -ed allomorphs of Malay speakers of English and linguistic knowledge types. *Indonesian Journal of Applied Linguistics*, 7(2), 207-216. <https://doi.org/10.17509/ijal.v7i2.8353>
- McMillan, J. H., & Schumacher, S. (2006). *Research in Education: Evidence-Based Inquiry (6<sup>th</sup> ed.)*. London: Pearson.
- Meara, P., & Wolter, B. (2004). V\_LINKS: Beyond vocabulary depth. In D. Albrechtsen, K. Haastруп, & B. Henriksen (Eds.), *Angles on the English Speaking World, Vol 4*. Copenhagen: Museum Tusulanum Press.
- Mohd-Asraf, R., Abdullah, H. & Md Zamin, A. A. (2016) Literacy among Malaysian Primary schoolers: How do boys perform relative to girls? *International Electronic Journal of Elementary Education*, 9(1), 225-238.
- Mokhtar, A. A. (2010). Achieving native-like English lexical knowledge: The non-native story. *Journal of Language Teaching and Research*, 1(4), 343-352. DOI: 10.4304/jltr.1.4.343-352
- Mokhtar, A. A., Rawian, R. M., Yahaya, M. F., Abdullah, A., Mansor, M. Osman, M. I., Mohamed, A. R. (2010). Vocabulary knowledge of adult ESL learners. *English Language Teaching*, 3(1), 71-80. DOI: 10.5539/elt.v3n1p71

- Morse, G. & Graves, D. F. (2009). Internal Validity. In Erford, B. T. (Ed.) *The ACA Encyclopedia of Counseling*. Alexandria: American Counseling Association.
- Muhamad, A. J., Ahamad Shah, M. I., Engku Ibrahim, E. H., Sarudin, I., Abdul Malik, F., & Abdul Ghani, R. (2013). Oral presentation errors of Malaysian students in an English for Academic Purposes (EAP) Course. *World Applied Sciences Journal*, 21, 19-27. DOI: 10.5829/idosi.wasj.2013.21.s1t1.2133
- Mukoroli, J. (2011). Effective Vocabulary Teaching Strategies for the English for Academic Purposes ESL Classroom. Unpublished Master's dissertation, SIT Graduate Institute, Brattleboro, Vermont.
- Noriza Majid , Saiful Hafizah Jaaman, Maslina Darus, Roslinda Mohd Nazar, Siti Norafidah Mohd Ramli, Nur Riza Mohd Suradi, Azmin Sham Rambely, Rokiah@Rozita Ahmad, Ummul Khair Salma Din, Faridatulazna Ahmad Shahabuddin, Zalina Mohd Ali, Najib Mahmood Rafee, Wan Rosmanira Ismail, Nur Jumaadzan Zaleha Mamat, Nora Muda, Norkisme Zainal Abidin, Mohd Salmi Md. Noorani, Abdul Malek Zakaria, Zaidi Isa, Hamizun Ismail, Zainol Mustafa, Abdul Ghafur Ahmad, Muhammad Ikhwan Azlan, Ishak Hashim (2011). The readiness of Mathematics and Science lecturers to teach in English from students' perspective. *Procedia Social and Behavioral Sciences*, 18, 342–347. <https://doi.org/10.1016/j.sbspro.2011.05.048>
- Owusu, M. E., & Amuzu, E. K. (2015). Second language learners' family background and their English writing competence: The case of a private tertiary institution in Ghana. *Studies in English Language Teaching*, 3(4), 465-486. DOI: 10.22158/selt.v3n4p466
- Ozender, O. (2016, April). Student EFL teachers' receptive vocabulary size. Paper presented at International Conference on Teaching and Learning English as an Additional Language, Antalya, Turkey. DOI: 10.1016/j.sbspro.2016.10.061
- Payne, T. E. (2006). *Exploring Language Structure*. New York: Cambridge University Press.

Pholsward, R. (2015). English vocabulary acquisition of bilingual learners at the primary and secondary levels. *PASAA*, 49, 1-37.

Phuket, P. R. N., & Bidin, S. J. (2016). Native language interference in writing: A case study of Thai EFL learners. *International Journal of Foreign Language Teaching and Research*, 4(6), 25-36.

Raja, B. W. D. & Selvi, K. (2011). Causes of problems in learning English as a second language as perceived by higher secondary students. *i-Manager's Journal on English Language Teaching*, 1(4), 40-45.

Rosato, E. (2013). Adjective Order in English: A Semantic Account with Cross-linguistic Application. Senior Honour Thesis. Carnegia Mellon University. <https://doi.org/10.1184/R1/6683927.v1>

Schmitt, N. (2014). Size and depth of vocabulary knowledge: What the research shows. *Language Learning*, 64(4), 913-951. <https://doi.org/10.1111/lang.12077>

Schmitt, N. (2000). *Vocabulary in Language Teaching*. New York: Cambridge University Press.

Selamat, A., Esa, A., Saad, S. S., & Atim, A. (2010). Teaching and learning Mathematics and Science in English in primary schools in the state of Johor, Malaysia. *Journal of Education*, 16, 1-17.

Senarai Sekolah yang Menawarkan Program Dual-Language Programme (DLP) di Malaysia. (2018, December 13). Retrieved from [http://www.data.gov.my/data/ms\\_MY/dataset/senarai-sekolah-yang-menawarkan-program-dual-language-programme-dlp-di-malaysia](http://www.data.gov.my/data/ms_MY/dataset/senarai-sekolah-yang-menawarkan-program-dual-language-programme-dlp-di-malaysia)

Singh, P., Abdul Rahman, A., & Hoon, T. S. (2010). Language and Mathematics achievements among rural and urban primary four pupils: A Malaysian experience. *Journal of Science and Mathematics*, 3(1), 65-85.

Singh, T. K. R., & Rajalingam, S. K. (2012). The relationship of writing apprehension level and self-efficacy beliefs on writing proficiency level



- among pre-university students. *English Language Teaching*, 5(7), 42-52. DOI: 10.5539/elt.v5n7p42
- Skiba, R. (1997). Code Switching as a Countenance of Language Interference. *The Internet TESL Journal*, 3(10).
- Steele, J. L., Slater, R. O., Zamarro, G., Miller, T., Li, J., Burkhauser, S., & Bacon, M. (2017). Effects of dual-language immersion programs on student achievement: Evidence from lottery data. *American Educational Research Journal*, 54(1), 282-306.
- Suliman, A., Mohd Nor, M. Y., & Md. Yunus, M. (2017). Dual-language programme in Malaysian secondary schools: Glancing through the students' readiness and unravelling the unheard voices. *Gema Online Journal of Language Studies*, 17(4), 128-145. DOI: 10.17576/gema-2017-1704-09
- Tan, A. W. L., & Goh, L. H. (2017). Relationship between vocabulary size and reading comprehension levels of Malaysian tertiary students. *International Journal of English Language & Translation Studies*, 5(4), 149-155.
- Thirusanku, J., & Md. Yunus, M. (2012). The many faces of Malaysian English. *International Scholarly Research Notices*, 2012, 1-14. <https://doi.org/10.5402/2012/138928>
- Tsai, Y., & Shang, H. (2010). The impact of content-based language instruction on EFL students' reading performance. *Asian Social Science*, 6(3), 77-85. DOI: 10.5539/ass.v6n3p77
- Wadden, P., Ferreira, D., & Rush, E. (2016). The global academic vocabulary lexicon: A new ELT resource. *Accents Asia*, 8(2), 153-142.
- Waxman, S. R., & Guasti, M. T. (2009). Nouns, adjectives, and the acquisition of meaning: New evidence from Italian-acquiring children. *Language Learning and Development*, 5(1), 50-68. DOI: 10.1080/15475440802347528

- Yao, Q. (2015). Understanding and practice of content-based instruction: A case study of a Chinese immersion teacher. *Florida Foreign Language Journal*, 2015, 57-69.
- Yeoh, M. P. (2015). Musical mnemonics to facilitate learning of transcription of RNA. *Learning Science and Mathematics*, 9, 23-34.
- Yuen, Y. L., & Siu, E. (2014). A meta-analysis of the effectiveness of English-medium education in Hong Kong. *Review of Educational Research*, 84, 47-73. DOI: 10.3102/0034654313499615.