



**CORPUS-BASED ANALYSIS OF REPRESENTATIONS AROUND THE WORDS**

**PPSMI and DLP IN MALAYSIAN MAINSTREAM MEDIA, THE STAR**

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## APPROVAL FORM

This research paper attached hereto, entitled **Corpus-based Analysis of Representations around the Words PPSMI and DLP in Malaysian Mainstream Media, The Star** prepared and submitted by **Lo Ke Yuan** in partial fulfilment of the requirements for the **Bachelor of Arts (Hons) English Language** is hereby accepted.



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Date: 20 April 2022

## ABSTRACT

Since the National Education policy was implemented in the 1970s, the exposure to English language among Malaysians has declined and the average English proficiency among Malaysians has been deteriorating, notwithstanding the position of English language as a compulsory second language in national schools. Although there have been English reinforcement programmes such as the teaching and learning of science and mathematics in English (hereinafter PPSMI) and dual language programme (hereinafter DLP), the alarming disparity between the implementation of policies and goal attainment has been a pressing issue that lacks appropriate attachment measures. Therefore, this research sets out to examine the representation of the educational policies, PPSMI and DLP, and the similarities and differences between the representation of these two policies. The research utilizes a combination of quantitative method and qualitative methods. By adopting corpus linguistics analysis and collocational analysis, the findings uncover the positive and negative representations from the perspective of different public and mainstream media by looking at the collocates employed in the news articles of the mainstream media, The Star. Besides, the discussion of the research also offer insight into how the representation of PPSMI resembles or differs from the representation of DLP through discourse analysis and manual concordance analysis as qualitative methods.

**Keywords:** *The teaching and learning of science and mathematics in English, dual language programme, representation, collocational analysis, discourse analysis, manual concordance analysis*

## DECLARATION

I declare that the material composed in this thesis is solely the result of my own work. Many of the ideas of this thesis are the product of discussion with my supervisor, Encik. Mohamad Iqbaal. Acknowledgement has been specifically specified in the bibliography and references to ALL sources be they printed, electronic, or personal. Last but not least, I confirm that this thesis presented has not been submitted in any application for a degree or professional qualification at this or any other university.

*Sylvia*

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## CHAPTER 1 INTRODUCTION

### **1.0 The Importance of English Language and the Low English Proficiency among Malaysians**

According to Nishanthi (2018), English is recognized by 67 countries as an official language. It is also widely spoken by 20% of the population on Earth, which is 1.5 billion people worldwide (Dylan, 2017). With globalization in the twenty-first century, the position of English in the international arena is undeniably indispensable due to its instrumental value.

English plays a paramount role in the global commercial world as it is the lingua franca for every international business and trade. It is the bridge language used in most cultural integration or merger and acquisition. For example, a German technology firm, GlobalTech, failed to communicate the software issues faced by a key client to its subsidiary in India (Neeley, 2012). The technical department in India does not understand German and the time spent on documents translation took a toll on the crisis. Hundreds of thousands of dollars were at stake for the client as well as the company.

On the other hand, the CEO of Japan's largest electronic commerce and online retailing company, Rakuten, positioned English as the official business language of the company in 2010 (Neeley, 2012). Due to this global language policy, half of Rakuten's Japanese employees can effectively communicate in English with a broad spectrum of customers, clients, and business partners. The company also assign more than 1000 engineers to join overseas technology conferences for greater growth opportunities.

To simply put, a nation should indubitably ensure its nationals command an adequate level of English proficiency in aims of national competitiveness and global achievement. Nevertheless, as unearthed by EP EPI (2020), out of 100 countries, Malaysia has dropped four places behind in the global English proficiency ranking from 22<sup>nd</sup> to 30<sup>th</sup> and its proficiency



band has also fallen from “high” to “moderate” last year. Most of the local universities’ students claimed that it is challenging for them to understand the spoken or written English Language even though they have done well or passed their SPM or Form Five English Exams (Yunus & Hern, 2011). Poor English proficiency becomes one of the crucial factors that negatively affect the academic performance of Malaysian undergraduates. For example, the engineering students at University Malaysia Pahang consider that their weak English mastering and limited English vocabulary hamper them from delivering a presentation smoothly and answering the questions asked by evaluation panels effectively which consequently results in bad grades (Radzuan, 2011).

The problems do not stop there. Malaysian graduates who face difficulties in speaking, listening, reading and writing English consequently face trouble in securing job opportunities and contribute to the unemployment rate in Malaysia. As reported by JobStreet.com (2015), English incompetence is responded as the second-highest significant reason behind graduates’ joblessness. We could see how the current standard of English proficiency of Malaysians is not guaranteed although they are exposed to a minimum of 11 years of the formal learning of the English language starting from the elementary level. Therefore, the Ministry of Education has implemented and has been implementing two initiative programmes to inculcate students who possess a firm grasp of the English language before they step into their tertiary education.

### **1.1 The Implementation of Teaching and Learning of Science and Mathematics in English (PPSMI) Policy**

Realising the current English formal education did not promise competent language acquisition among students, the Ministry of Education initiated a policy to boost the English mastery of the students, namely, The Teaching and Learning of Science and Mathematics in English, also known as PPSMI. This national educational reform also aimed to expedite the

grasp of knowledge in Science and Mathematics among Malaysian students to prepare them for the advent of Information Technology outburst.

During the 2003 school session, All Year one pupils in primary schools and Form one students in secondary schools became the first batch of guinea pigs of the education reform. However, the public holds strong opposition and heavy criticisms against the sudden initiation of PPSMI. Some of the vernacular advocates and language nationalists claimed that the move could inflict negative impact on the status of the Malay language and result in mother tongue jeopardy.

Apart from that, the opponents of the implementation of PPSMI questioned its effectiveness in elevating the English proficiency of students. They argued that the lack of skilled English teachers was the major challenge faced by the policy. The mastery of English literacy of most of the teachers was not up to standard due to insufficient training. They struggled in teaching Science and Mathematics due to a change of instructional medium and the students became the direct recipients who bear the consequences. The students dealt with difficulty learning both these subjects in a language that they were weak in, and their deplorable performance was the evidence.

PPSMI was completely executed for all primary school pupils in 2008 and secondary school students in 2007. Nonetheless, in response to the strong resistance manifested by different parties, the government eventually announced the abolishment of this controversial educational policy in 2009. The former deputy Prime Minister, Tan Sri Muhyiddin Yassin, declared that the teaching of Science and Mathematics can start being carried out in Malay and other vernacular languages again from 2012. The justification of the policy reversal stated by the government included the unsatisfactory achievements of students in the English language

and a lack of qualified teachers that were capable of teaching these two subjects entirely in the English language.

## **1.2 The Implementation of Dual Language Programme (DLP) Policy**

Dual Language Programme, also known as DLP, is an educational programme that highlights two-way immersion. DLP was introduced in 2015 and rolled out in the 2016 school session. It occurs as a kill-two-birds-with-one-stone strategy after the abolishment of PPSMI as it emphasises the use of both national language and target language, namely, Bahasa Malaysia and English Language. DLP renders an opportunity for the schools to adopt English language as the medium of instruction (MOI) in imparting the knowledge of Science, Mathematics, Information Technology and Communication, and Design and Technology subjects to the students. The remaining subjects are taught in the national language as usual.

To the authority of the Official Portal for the Ministry of Education Malaysia (2015), the official purpose of this policy is to enhance the command of English language proficiency of students by increasing their contact hours with the English language. By strengthening the bilingual competency of students, DLP aspires to provide more opportunities for access and exposure to far-reaching knowledge to the students, which allows them to compete globally and improve employability and marketability for their future career paths.

DLP is commonly acknowledged as the resurgence of PPSMI, yet there are differences in the process of implementation. PPSMI was a mandatory English reinforcement programme and DLP functions on a voluntary basis, which means the use of English as a medium of Instruction (MOI) is optional under the system of DLP. According to the Ministry of Education, schools that opt for DLP could autonomously submit for official application to District Education Offices (PPD) as long as the schools adhere to four conditions: adequate and sufficient teaching resources, the readiness and willingness of the headmaster and teachers to

conduct DLP, the support from parents, and the student performance in Malay subject must be up to par or higher than the national average achievement.

### **1.3 Problem Statement**

Regardless of PPSMI or DLP, the worrisome gap between the implementation of educational policies and goal attainment has been a concern by the government and the public. The shortage of competent English teachers in primary schools and secondary schools has been considered as the major obstacle to these educational programmes.

As stated in the study of Moses & Malani (2019), most of the teachers confessed that they normally used code-switching or even entirely used Malay language when teaching Science and Mathematics subjects. The teachers did so as the students failed to understand what they were teaching or the students requested them to do so. They also admitted that it was time-consuming to teach in English as they had to spend extra time introducing new English terms, translating instructions, and preparing teaching materials. Besides that, according to the interview conducted by Bullah & Yunus (2019), 36.4% of teachers claimed that teaching pedagogies such as facilities, materials, and resources are the factors that resulted in faulty implementation. Four of them suggested that the government should improve their teaching resources and provide sufficient materials and conduct courses on teaching approaches.

As elucidated earlier, PPSMI has been terminated by the government and the reversal of the policy generated another issue for the teachers and students. They were forced to adapt to the sudden change in MOI and this was mentally and cognitively challenging for them. The inadaptation and confusion that arose among the students could potentially aggravate their academic performance (Yunus & Sukri, 2017). The issue has validity, as we can tell from the dissatisfaction expressed by the former Chief Minister of Sarawak, Tan Sri Adenan Satem. He voiced that they were not in favour of the predicament where English Language is used this

year and Malay Language is used next year (Pim, 2016, as cited in Yunus & Sukri, 2017). Inconsistency like this should be avoided to not agitate the students and parents. In the case of DLP, since the public has been portraying ambivalent attitudes towards its implementation, there is a likelihood that the government might follow the same old disastrous road. The instability of educational policy decision-making would not do the students any good and could be perceived as adding fuel to the fire of our nation's weak global competitiveness.

The significance of the English reinforcement policies is no longer in doubt. Yet, the interest and motivation of teachers and students were dampened in face of the turbulence of PPSMI (Yunus & Sukri, 2017). The ineffectiveness and uncertainty of the policy engendered despondency among its recipients. As claimed by Palmer et al. (2014), as cited in Yunus & Sukri, 2017), there are many teachers ultimately gave up on teaching the two subjects in English and opted for monolingual teaching. The reluctance and unwillingness of teachers and students to step out of their comfort zone, teach and learn Science and Mathematics in the national language, will lead our nation to go on a tangent along the developmental trajectory towards the international arena. Our national aspiration of Vision 2020, which appears to be a mirage now, is an indication.

#### **1.4 Research Questions**

There are three research questions and research objectives posed as the focal points of the research:

**Research Question 1:** What does a collocational analysis of the word PPSMI reflect on the representation of this educational policy?

**Research Question 2:** What does a collocational analysis of the word DLP reflect on the representation of this educational policy?

**Research Question 3:** What are the similarities and differences between the representation of DLP and PPSMI?

### **1.5 Research Objectives**

**Research Objective 1:** The research aims to explore the representation of PPSMI among the public and mainstream media through collocational analysis.

**Research Objective 2:** The research aims to explore the representation of DLP among the public and mainstream media through collocational analysis.

**Research Objective 3:** The research aims to identify the similarities and differences between the representation of PPSMI and DLP among the public and mainstream media.

The first and second research questions will be addressed in chapter four and the third research question will be answered in chapter five, which is the discussion section.

### **1.6 Scope of Research**

The scope of this research mainly centres on identifying the representations of the words DLP and PPSMI by using corpus linguistics techniques. In examining the representations of the words, the researcher makes inferences about the response and standpoints of different public and mainstream media towards the implementation of DLP and PPSMI. *The Star*, a local mainstream news portal, will be utilised to collect source texts for data collection and corpus building.

### **1.7 Significance of Research**

As the source of data collection for this research was the online Malaysian newspaper database, the archive of newspaper articles presented a more comprehensive, in-depth collection of information on how the local mainstream media represents these educational policies.

As a result of throughout literature review, most of the past linguistic analyses focused on gathering information about PPSMI and DLP from teachers, students or even school administrators, who are the parties involved in the policy. However, few studies focused on the lenses of the third-party public such as parents, politicians, or representatives from NGOs. This research incorporated the perspective not only from the involved parties of the policies but all public. This is to recognize the significance of their acceptance, satisfaction, and support toward the success of any educational policy. Hence, the researcher examined the reviews expressed by the public by looking into the “columnists” and “letters to the editor” subpages under the “opinion” column of the website of *The Star*.

Besides that, most of the existing research have used qualitative method to examine the perspective of different parties toward PPSMI and DLP policy. Yet, there has been a lack of works of literature using the corpus-based approach in studying the related topic. By adopting the corpus linguistics approach, the researcher gained statistical evidence and systematic pattern from the collections of naturally occurring data, which are the written texts from the archive of newspaper articles for future research purposes. The extensive data set and numerous frequency-based information yielded by corpus make it easier for the researcher to retrieve fuller coverage of representations (Baker & Levon, 2015). Besides, this approach also omits the ambiguities that are inherently embedded in human language, which is also recognized as a limitation of qualitative research (Atieno, 2009).

Therefore, the findings and discussion of this research will be beneficial for future research or educational policy formulation as it encompasses relatively comprehensive points of view from every public involved and adopts the application of corpus linguistics software, which has not been used in the related research.

## CHAPTER 2 LITERATURE REVIEW

### **2.0 General Background**

Looking at the international context, DLP is commonly incorporated into the education systems of many countries. One of the ideal examples is the United States where there was an increase in immersion schools from 278 to 448 between 1999 and 2011 (Steele et al., 2017). In Germany, there are more than 400 institutes of Average Education conducting bilingual education in German and non-German languages (Billy & Garríguez, 2019). Japan has also commenced an identical programme called a Dual Language (English and Japanese) Diploma to promote the implementation of the International Baccalaureate Diploma Programme (Yamamoto et al., 2016).

Our fourth and seventh prime minister, Tun Dr Mahathir Mohamad, had been keeping abreast with the global trend as he was the one who decreed the educational policy change and the introduction of PPSMI back in the year 2002. However, there have been cries of the non-workability of PPSMI among schools and the public due to the absence of gradual stages of implementation, policy reviews and continuous research regarding the faulty implementation (Lai & Yien, 2012). However, Dr Mahathir remains firmly committed to the move of pushing for Science and Mathematics to be taught in English after 18 years of objection and resistance. As reported by The Borneo Post (2020), he believes that English language is exceptionally significant for Malaysians to study the new findings or solutions released by Western scientists and to master scientific fields. He also opines that the nations are supposed to develop the advancement and success of the community instead of clinging to their mother tongue (Augustin, 2020).



## **2.1 The Mixed Response towards PPSMI**

PPSMI is a national education policy that had never stopped being judged and reviewed by a whole slew of academicians and public. In this section, the researcher encapsulates how the implementation of this controversial policy had been lambasted by different voices of criticism. First and foremost, the sudden inception of PPSMI without any in-depth consultation with MOE officers or educational experts sparked off an abundance of questions and chastisements. This sudden move by the government overwhelmed many school administrators and teachers since the preparation for the implementation of the policy took only around six months.

The non-performance of the policy had also been criticised by the scholars and public. Looking at a bigger picture, an international study of the trends in Mathematics and Science has manifested the poor achievement of Malaysian students in both subjects. For Science, the ranking of Malaysia has slid from 10<sup>th</sup> position in 2003 to 20<sup>th</sup> position in 2007 (Martin et al., 2008). For Mathematics, Malaysia has fallen one place behind from the 20<sup>th</sup> spot in 2003 to the 21<sup>st</sup> spot in 2007 (Mullis et al., 2008).

As stated in Ishak & Mohamed (2010), in UPSR 2009, the percentage of candidates who achieved grades A, B, and C for Science subject has dropped from 85.1% to 82.5% for students from urban schools and from 83.2% to 79.7% for rural students. For Mathematics subject in the same year, the UPSR achievement of urban students has decreased from 84.8% to 80.9% and from 80.9% to 77% for rural students. The achievement gap in Science and Mathematics subjects between the urban students and rural students widened after the implementation of PPSMI (Razid, 2010). Therefore, it is not surprising when the Ministry of Education revealed that the improvement level of students' English proficiency is not more than 3% of increment value in the middle of implementation (Majid et al., 2012).

Despite the arduous challenges faced, PPSMI was still supported by some positive feedback and recognition. The abolishment of PPSMI was conversely met with another wave of objections from well-educated interest parties, urbanites, and the parents from the cities. They opined that the incompetency of students in the English Language should not be disregarded pessimistically since learning Science and Mathematics in vernacular languages will only deteriorate the situation (Yunus & Sukri, 2017).

The objections and concerns had also been fortified by Datin Noor Azimah Abdul Rahim, the chairman of the Parent Action Group for Education (PAGE). She claimed that English medium schools suffered abolishment in 1969 as the victim of the education minister to placate the rioters and ultra-nationalists (The Star, 2011). English was not a compulsory passing subject to retrieve a full SPM certificate before 2016 and this also yields the indifference of students and teachers towards English language. Moreover, many parents transfer their children to international schools or overseas schools, following the termination of PPSMI, which could elicit a brain drain due to a distrust of the local educational system (The Star, 2011).

Contrary to the common findings of the research, there is refutation that the best performance of students in Science and Mathematics was achieved in years after the introduction of PPSMI, as shown in the table below, without any affliction on their performance in Malay subject (The Edge Markets, 2011). The results for Bahasa Malaysia in every exam remained stable, regardless of the improvement of students in Science, Mathematics, or even English subjects (The Edge Markets, 2011). These findings are compatible with the argument of Datin Noor Azimah, as she always reiterated that it is not about learning English through Science and Mathematics, it is about acquiring scientific knowledge through English (The Star, 2011). This policy will not jeopardise the status of Bahasa Malaysia by any means.

Years	SPM	PMR	UPSR
The best result in Science and Mathematics	2007	On an uptrend since 2007	2008
The worst result in Science and Mathematics	2001	Not stated	Not stated

Apart from that, some scholars espoused the practicality of PPSMI as English is the primary access to the latest scientific and technological development. There is a mass of secondary school textbooks or reference books produced in English and their translated versions' contents would not be as state-of-the-art because English-to-Malay translation is an arduous and time-consuming process (Yunus & Sukri, 2017). This is in agreement with Gill (2003, as cited in Chan and Abdullah, 2015) who declared the similar fact that many scientific and technological terms could not be accurately translated into the Malay language at the tertiary level and it becomes a trouble for the teachers. Yunus & Hern (2011) also found that many tertiary students deem English as a must-learn language in their fields of expertise and they agree that English should be used for official document purposes such as research, theses, and dissertations.

## **2.2 The Mixed Response towards DLP**

DLP was introduced in 2015 and rolled out in the 2016 school session. Despite the modus operandi of DLP differs from PPSMI's, there are still voices of criticism going around after four years of DLP's inception. Datuk Mohd Khairuddin Aman Razali At-Takiri from Malaysian Islamic Party once pointed out that DLP resembles the context of PPSMI which had

been proven as a failure due to the decline of Malaysian students' examination results in 2007 (Annuar, 2019). Meanwhile, the United Chinese School Committees' Association also asserted that students faced difficulty handling the programme without influencing their mother tongue (The Sun Daily, 2016). The president of the association, Datuk Vincent Lau had handed in the memorandum of objection in defence of the qualities of Chinese primary schools.

As claimed by Moses & Malani (2019), most of the students in the study still faced difficulty understanding what was taught by the teachers as they were not familiar with many English terms. They still displayed ineptitude in English grammar and vocabulary which made the students suffer impediments in DLP classes. Zooming into the lenses of teachers, some of them also claimed that their readiness towards DLP is low because the Ministry of Education did not consider offering any related courses or seminars in advance to the teachers (Unting & Yamat, 2017). The last course they attended was regarding PPSMI and it was already over a decade back. Since there was no ample information and clear-cut guidelines, the teachers remained using PPSMI methods when conducting DLP classes.

On the other side, as reported by Chin & Rajaendram (2017), there were 585 primary schools and 629 secondary schools that opted for DLP as of September 2017 and parental support is one of the decisive factors that contributed to the rising number of DLP schools. The statement is backed up by the research of Bullah & Yunus (2018) in which the findings indicate that majority of the urban parents displayed positivism toward DLP and English language. In addition, their willingness to enrol their children in the programme was high and they proactively provided suggestions to improve the effectiveness of the programme.

Apart from parents, the urban teachers who had been carrying out DLP classes also possess positive perceptions toward this policy. As claimed in the preliminary studies of Bullah & Yunus (2019) and Shamsudin et al. (2018), many teachers were confident in conducting

classes using English as they were ready with their skills, knowledge, and proficiency. This situation was credited to PPSMI as they were once accessed to the experience of teaching Science and Mathematics in English a few years back (Bullah & Yunus, 2019). These teachers are the by-product of PPSMI and some of the others are qualified for Bachelor of education.

Zooming into the lenses of students, Suliman et al. (2018) unravel the positivism among the secondary school students towards their language abilities and attitudes towards learning Science and Mathematics subjects in the English language. The findings are espoused by another research that fortifies among 1530 secondary students, they manifested a high level of positivity in terms of attitude, readiness, language capabilities, support from teachers, and acceptance of the programme (Suliman et al., 2019).

## CHAPTER 3 METHODOLOGY

### **3.0 Corpus Linguistics**

Corpus linguistics is a branch of applied linguistics that involves the use of language corpora and corpus-based methods of analysis. In the context of modern linguistics, corpora are collections of naturally occurring language texts in digitized format. In other words, corpora assess authentically spoken or written texts as the basis for analysis instead of relying on intuitions (McEnery & Gabrielatos, 2006). This clarifies why corpus analysis is considered synonymous with empirical linguistics. It makes extensive use of computer software for analysis to assemble, store, and analyse an extensive collection of language data (McEnery & Gabrielatos, 2006).

The major areas of linguistics and language studies where corpora have been used are lexicographic and lexical studies, grammatical studies, register variation and genre analysis, dialect distinction and language variety, contrastive and translation studies, diachronic study and language change, language learning and teaching, forensic linguistics, stylistic and literary studies, and discourse analysis (McEnery et al., 2006). In terms of methods, there are two types of corpus approaches, namely, corpus-based and corpus-driven. The former approach initiates the analysis with established hypotheses or linguistics theories which requires the researcher to have them appraised (Tognini-Bonelli, 2001). The latter approach adopts a neutral stance and lets the analysis inducted by the data towards new modes of description (Tognini-Bonelli, 2001).

### **3.1 Methods of Analysis**

This research employed a corpus linguistic approach that encompasses a combination of quantitative and qualitative methods. Collocation analysis was conducted to statistically identify the occurrences of collocations in a text or discourse as a quantitative method. It was

carried out to analyse the syntactic structure and semantic motivation of lexical combinations by looking at their systematic co-occurrence relationships which are upheld by statistical data (Shouji & Shulun, 2016). Concerning this research, collocation analysis of words or phrases that collocate with PPSMI or DLP revealed the identity and representations associated with the selected language policies. Next, the qualitative method came in when the researcher interpreted the pre-established hypotheses and validated, debunked, or refined the past studies based on the findings. This exemplifies that the research subscribes to corpus-based principles by using corpus data to test the performed hypotheses.

### **3.2 Brief Execution**

The first important step in building a specialised corpus is to determine the type and source of target materials that will be comprised in the corpus. The researcher opted for a collection of news articles from a national mainstream media, *The Star*. According to Similarweb (2021), *The Star* is the second most visited Malaysian news portal in the rankings. Therefore, the researcher looked into the archive of *The Star* news articles, the “columnists” and “letters to the editor” subpages under the “opinion” column on the website to build a specialised corpus. The time frame determined for articles selection was from 1 January 2012 to 1 January 2017, which was from the termination year of PPSMI to a year after the inception of DLP. It was prescribed that the articles had to include at least either one of the exact keywords as a search term: PPSMI or DLP or DUAL LANGUAGE PROGRAMME.

Once an adequate number of news articles was collected, the researcher used the copy-and-paste command to convert the PDF files of newspaper articles into plain text (txt) format with the assistance of a freeware tool, *AntfileConverter*. Word elimination is necessary to remove any linguistically irrelevant content after the text has been extracted. The following step is to download *AntConc*, a text analysis software together with the *AntBNC Lemma List*

file for data processing. After *AntConc* was installed and launched, the researcher started to upload the plain text files of news articles, set the token definition, and upload the *AntBNC Lemma List* file.

After completing all the preparation, the researcher started to delve into collocation analysis by first clicking the “Collocates” option at the top of the AntConc window. The word span for the collocation is customisable, as the users can either alter it in the control panel or stick to the default word span. For this collocational analysis, the word span was customised as six words to the left and six to the right of both search terms. The restriction of the frequency was adjusted to a minimum of five frequencies. Finally, the researcher entered one of the search terms in the search box and started to generate a list of collocates from a corpus of 135 plain text files.



## CHAPTER 4 FINDINGS AND ANALYSIS

To reveal the representations associated with the selected educational policies, PPSMI and DLP, a collocational analysis was conducted with a corpus of 135 news articles and 91732 tokens. A list of the collocates was distributed according to the nature of word connotation to identify the employment of positive collocates and negative collocates in describing both educational policies respectively. Therefore, neutral words and function words were eliminated.

The additional parameter in determining the potential collocates is the obtained collocates must fulfil the parameter of an MI (mutual information) score of 3.0 and above to be considered as statistically significant in terms of collocational strength (Chang & Rahim, 2021). Through MI score, we could objectively identify whether the possibility of seeing the collocates without the keyword is high or low. If a collocate has a high MI score, it is less likely to exist beside the keyword by chance, but they are more likely to exclusively associate with each other. In addition, discourse analysis and manual concordance analysis were incorporated to analyse the systematic co-occurrence relationships between the keywords PPSMI and DLP with their most frequent positive and negative collocates which are upheld by statistical data.

### **4.0 The Employment of Positive Collocates in Describing PPSMI Policy**

Table 1: The most frequent positive collocates of PPSMI

<b>Collocates</b>	<b>Frequency</b>	<b>MI Score</b>
Continue	23	6.36845
Rally	12	6.84489
Better	7	5.17112
Want	6	4.86507

Support	5	4.42986
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Table 1 illustrates the colligation of the most frequent positive collocates of the keyword “PPSMI”, which include “continue”, “rally”, “better”, “want”, and “support”. The positive collocate with the highest frequency, “continue” is generally considered as a neutral verb, yet it is attached to positive connotation in the context of policy. When an educational policy is expected or demanded by the concerned public to be carried on, the policy must have contributed some practical policy values or advantages to the policy recipients or even the whole community. For examples:

*I REFER to the letter “Why PPSMI should **continue**”. I totally agree that PPSMI should be continued if we are sincere about reaching developed status by 2020.*

*As a parent, I say let’s **continue** PPSMI for the nation’s greater good.*

*Our corridor conversations with many members of the National Education Advisory Council, the Education Review Panel and the National Education Review Dialogues Panel have indicated that there is strong support among them for the teaching and learning of Science and Mathematics in English to **continue** in national schools.*

These are three of the typical examples of “continue” extracted from the concordance lists of KWIC (key word in context). However, a paradoxical example is found in the concordance lists and it turned out to be a complaint. The statement comes from a private school’s principal who favours the continuity of PPSMI policy, yet is dissatisfied with the inadequate publications:

*Why are those who wish to **continue** with PPSMI being penalised with no support of books and resources?*

“Rally”, which mostly refers to any undesirable voice-out assembly or efforts in the public has a positive connotation in this study. It is shown in the KWIC of “PPSMI”, that the “rally” is all about the Parent for PPSMI (P4P) where the supporters of PPSMI gathered together and expressed their resolute request for the government to restore the policy. For example:

*A crowd of parents showed up at a **rally** here yesterday asking for the PPSMI policy to be retained indefinitely as an option in schools.*

The subsequent positive collocates are “better”. It is the comparative adjective of “good” which denotes a more desirable, greater state or condition. This collocate is paired with *education, chance, future, and way to improve English*. This is a sign of the approval or acknowledgement by the public who perceive PPSMI policy as a path towards higher achievements concerning education and English proficiency. When the policy is approved, the public would indeed “want” it to be implemented in a long run. Looking into the concordance lists of the positive collocate “want”, we can tell who are the agents that are satisfied with the policy. For examples:

*Parents and students who **want** PPSMI are anxiously hoping for the Education Ministry to coordinate with the various state and district education departments along with schools to fully resolve the unsettled problems.*

*This group is actually the target group of the country. The majority of them will be the wheels of continuity for progress. This group **wants** the PPSMI.*

Lastly, “support” describes the standpoint and attempts of PPSMI advocates in asserting their rights and bringing back the implementation of PPSMI policy.

*All these years, a lot has been said in **support** of PPSMI and also on the need to reintroduce English-medium schools. It is also a “gross injustice” to deny those who want to study in English the opportunity to do so.*

#### 4.1 The Employment of Negative Collocates in Describing PPSMI Policy

Table 2: The most frequent negative collocates of PPSMI

Collocates	Frequency	MI Score
Abolished	13	8.13029
Implementation	8	5.72942
Mansuhkan	6	9.01482
Issue	6	4.99245
Blueprint	5	5.10793

Table 2 summarises the colligation of the most frequent negative collocates of the keyword “PPSMI”, which include “abolished”, “implementation”, “mansuhkan”, “issue”, and “blueprint”. The negative collocate with the highest frequency retrieved from the data is “abolished”. It is an apparent negative collocate by denoting the PPSMI policy came to a halt. The typical context is illustrated by these two examples:

*Later in the day, a crowd of supporters showed up at a gathering at Jalan Gombak urging for PPSMI to be **abolished** immediately.*

*Tun Dr Mahathir Mohamad introduced the teaching or learning of mathematics and science in English (PPSMI) but the policy was **abolished** at the insistence of certain parties.*

Nevertheless, there is an unexpected twist in which this inherently negative collocate for a policy is somehow featured in the sentences that pose PPSMI in a positive position. For examples:

*Last year, when the appeal for PPSMI not to be **abolished** was finally granted (thanks to PAGE), many parents sighed a huge sigh of relief that their children's education for Maths & Science could still continue in English.*

*Ever since the PPSMI was **abolished**, parents have been complaining. This led to them enrolling their children into private and international schools.*

The following collocate is “implementation”. From the context of concordance lists, it is obvious that this collocate is frequently linked with some negative words such as *doubt*, *issues*, *halt*, and et cetera. Therefore, the KWIC suggests that the implementation of PPSMI policy came with obstacles and dissatisfactions and some public is not in favour of the policy. One of the examples of “implementation” is:

*The millions of ringgit and the thousands of man hours spent in preparing the teachers for the **implementation** of PPSMI had not produced the desired results.*

The next collocate is “mansuhkan”, has the highest MI score not only among all negative collocates, but among all collocates generated by the corpus. This is due to the collocate itself is a Malay word and it normally emerges only when the anti-PPSMI group, Gerakan Mansuhkan PPSMI (GMP), is reported in the English news articles. “Mansuhkan” shares the same meaning with the first negative collocate, “abolished”, but its context is completely unfavourable against PPSMI policy.

*Gerakan **Mansuhkan** PPSMI chairman Dr Shaharir Mohamad Zain said switching back to study the two subjects in Bahasa Malaysia instantly would not be an issue.*

Besides, “issue” is also one of the negative collocates stemming from the mixed response of the public towards the implementation of PPSMI policy. Some think that it is an issue to abolish it, some opine that it is an issue to restore it. As long as the majority of the public does not

reach a consensus, it will always remain as a problem regardless. One of the concordance lists of “issue” is:

*Concerned Parents Selangor (CPS) chairman Shamsudin Hamid said the Teaching and Learning of Science and Mathematics in English (PPSMI) was a fundamental **issue** and expressed disappointed that it was left out of the blueprint.*

“Blueprint”, is also a negatively collocated word in the context of PPSMI. It refers to the Malaysia Education Blueprint 2013-2025 that assesses the sustainable transformation of national education system and PPSMI policy was phased out from the blueprint.

*The exclusion of the Teaching and Learning of Science and Mathematics in English (PPSMI) from the Malaysia Education **Blueprint** 2013-2025 should not be an issue as the programme was already scheduled to end in 2021.*

*Dr Mohd Puad was commenting on the disappointment expressed by several NGOs that PPSMI was not included in the **blueprint**.*

#### **4.2 The Employment of Positive Collocates in Describing DLP Policy**

Table 3: The most frequent negative collocates of DLP

<b>Collocates</b>	<b>Frequency</b>	<b>MI Score</b>
English	30	3.04951
World	6	4.11268

Table 3 indicates the colligation of the most frequent positive collocates of the keyword “DLP”, which include only “English” and “world”. The high frequency of “English” substantiates that the English language is the core basis of the initiation of DLP policy on

account of the cries of a poor standard of English proficiency among Malaysians. Thus, the existence of “English” as a positive collocate is unquestionable.

*Now the Government has come up with the Highly Immersive Programme (HIP) and Dual Language Programme (DLP) to improve **English** standards in schools.*

The other positive collocate is “world”. This collocate is linked with the practicality and successfulness of the dual language programmes that are conducted in other countries. This collocate also emphasises the importance of being proficient bilingually or multilingually in today’s globalised and limitless world. On the other hand, some particular contexts of this collocate paradoxically bring about the different ways of DLP implementation between Malaysia and other countries in the world.

*Also known as a two-way immersion programme, DLP is used elsewhere in the **world** to enable students to receive instruction in the national language (in our case Malay) and a target language (in our case English) in the same classroom to develop academic proficiency in both languages beginning in kindergarten.*

### **4.3 The Employment of Negative Collocates in Describing DLP Policy**

Table 4: The most frequent negative collocates of DLP

<b>Collocates</b>	<b>Frequency</b>	<b>MI Score</b>
Implementation	20	6.86345
Approach	15	6.44841
Chinese	8	4.47378
Vernacular	6	5.96894
Affect	5	6.86345

Sense	5	6.56389
Tamil	5	5.39397

Table 4 outlines the colligation of the most frequent negative collocates of the keyword “DLP”, which include “implementation”, “approach”, “Chinese”, “vernacular”, “affect”, “sense”, and “Tamil”. The first negative collocate of DLP is “implementation”. Although there are some positive contexts in the KWIC of “implementation”, some of the public, especially vernacular advocates and language nationalists, are in opposition to the DLP policy. For example:

*About 50 Tamil non-governmental organisations (NGOs) here are against the **implementation** of the dual language programme (DLP) in Tamil vernacular schools by the Education Ministry.*

Besides that, the implementation of DLP was lambasted by the public as the policy adopted a segregated approach instead of an integrated strategy. The examples for this collocate include:

*The DLP **approach** we have now seems to be a reactive response merely to balance the strong nationalist arguments as well as those who want their children to study maths and science in English.*

*It would be more appropriate for the Government to put on hold the implementation of DLP to ensure we get the **approach** right in the first place.*

The next three collocates “vernacular”, “Chinese” and “Tamil” are in connection with each other. The Chinese and Tamil vernacular schools strongly opposed the implementation of DLP policy as they claimed that the inception of DLP endangers the status of their native languages.



*About 50 Tamil non-governmental organisations (NGOs) here are against the implementation of the dual language programme (DLP) in **Tamil vernacular** schools by the Education Ministry.*

*On Wednesday, the United School Committees Association of Malaysia (Dong Zong) submitted a memorandum to Deputy Education Minister Chong Sin Woon opposing the use of the DLP in **Chinese vernacular** schools.*

Another collocates is “affect”. As mentioned, DLP was deemed by some public as a policy that can jeopardise the status of mother tongue or mother tongue education. Not only Chinese and Tamil, but Malay nationalists also share the same concern as the other nationalists do.

*Chong also stressed that the implementation of DLP would not **affect** Bahasa Melayu, saying that it was still the country’s national language.*

The last negative collocates of “DLP” is “sense”. Many people criticised DLP policy was not implemented in its real sense. In another word, the implementation did not make sense in terms of practicality and effectiveness.

*Unfortunately, our current DLP approach does not resonate with the core fundamentals of the DLP or in an actual **sense** we can’t call our current approach the DLP.*

## CHAPTER 5 DISCUSSION AND CONCLUSION

Table 5: The most frequent positive collocates and negative collocates of PPSMI and DLP

PPSMI				DLP			
Positive	F	Negative	F	Positive	F	Negative	F
Continue	23	Abolished	13	English	30	Implementation	20
Rally	12	Implementation	8	World	6	Approach	15
Better	7	Mansuhkan	6			Chinese	8
Want	6	Issue	6			Vernacular	6
Support	5	Blueprint	5			Affect	5
						Sense	5
						Tamil	5

Table 5 encapsulates the most frequent positive collocates and negative collocates of PPSMI and DLP along with the frequencies that will be discussed thoroughly to unearth the similarities and differences between the representation of PPSMI and DLP.

### **5.0 The Similarity Between the Representation of PPSMI and DLP**

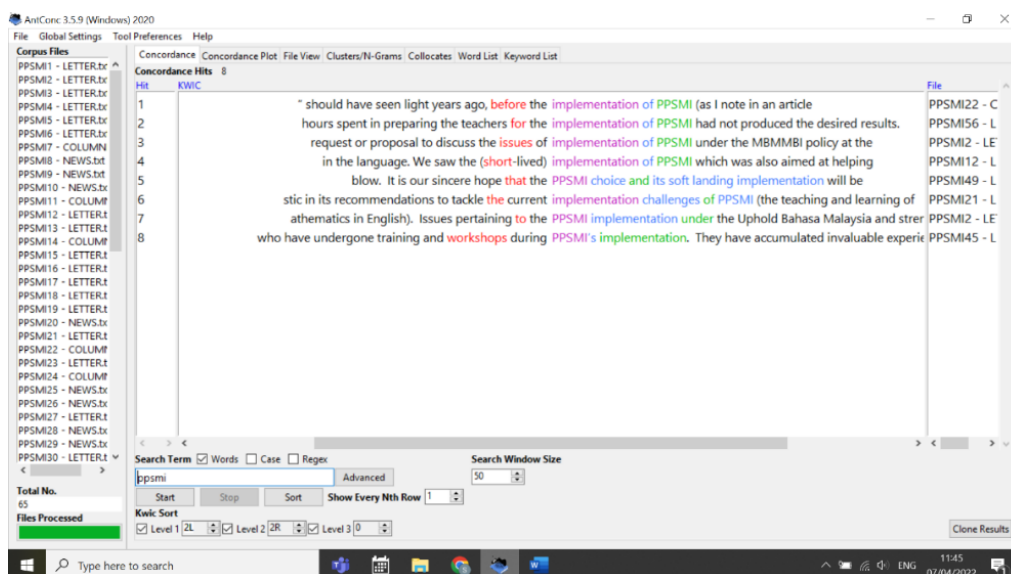
In terms of similarities, the most clear-cut representation of PPSMI and DLP is these two policies ultimately share the common goal, which is to enhance the English language mastery among Malaysians, specifically students. This similarity is extracted from the positive collocate of PPSMI, “better”, and the positive collocate of DLP, “English” and “world”. As mentioned in the findings part, “better” is paired with words or phrases such as “education”, “chance”, “future”, and “way to improve English” in the concordance lists. “English” and “world” also manifest the importance of the English language towards the competencies of the nationals and the future development of a nation in the international arena. Therefore, these

two policies aim to nurture English-proficient generations who are able to pilot our country along the developmental trajectory and enhance our abilities to a state of parity with the first-world countries.

## 5.1 The First Difference Between the Representation of PPSMI and DLP

Next, we will delve into the differences between the representation of PPSMI and DLP with the application of manual concordance analysis. The first difference can be kicked off by first raising a question: **Is it the educational policy itself or the implementation of policy that is faulty?** The only mutual negative collocate of PPSMI and DLP has shed some light on the question. “Implementation” is detected in both negative collocate lists of PPSMI and DLP as indicated in figure 1 and figure 2.

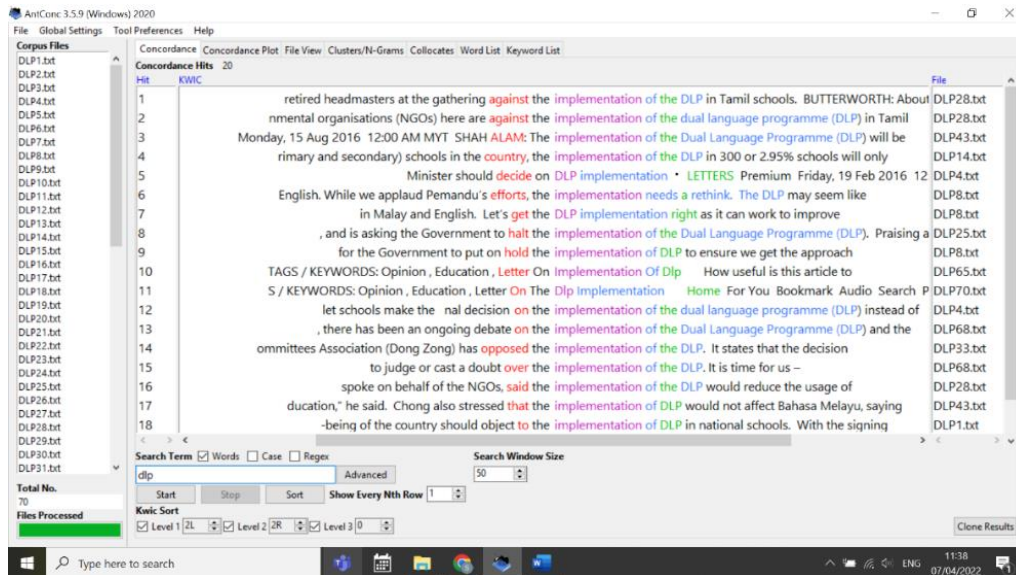
Figure 1: Sample concordance lists for “implementation” as the negative collocate of PPSMI



As displayed in figure 1, “implementation” of PPSMI is paired with “issues”, “challenges”, and “short-lived” in the concordance list. Although it is not a wealth of information, the context still alludes to the problems aroused within the implementation such as lack of appropriate textbooks and workbooks, lack of competence and confidence among

teachers, and the discrepancy between the good performance of students in the exams and their actual dissatisfactory English competency.

Figure 2: Sample concordance lists for “implementation” as the negative collocate of DLP



On the other hand, figure 2 depicts the concordance lists of “implementation” of DLP are featured with some specific parties including Tamil non-governmental organisations, the United Chinese School Committees Association (Dong Zong), Datuk Chong Sin Woon (Former Deputy Minister of Education II), and et cetera. These parties debated whether the implementation of DLP can adversely affect the status of their mother languages and lead to the marginalisation of mother languages. This argument is backed up by the other negative collocates of DLP, “vernacular” and “affect”, that reflect the dissatisfaction of vernacular advocates towards the nature of DLP policy in which its focal point is to increase the contact hours of students with English language. The sentiment is also shared by Dr P. Ramasamy (the Deputy Chief Minister of Pulau Pinang), Datuk Zainal Abidin Borhan (the chairman of the National Education Action Council), and Mohamad Sabu (the president of Parti Amanah Negara) (Suliman & Yunus, 2017). They all perceived DLP as a menace that reduced the usage

of vernacular languages in schools and adversely affected the system of vernacular schools as a matter of course.

In addition, another negative collocate of DLP, “approach” refers to the widely disapproved segregated approach adopted by the DLP policy. It is prescribed that only the selected classes in a school will undergo the execution of DLP while the remaining classes will continue to learn the Science and Mathematics subjects in national language. The segregated way of implementation has been judged as a mistake as it differs from how the dual language or immersion programmes work in other countries such as the United States (Arasu, 2016). The internationally recognised language immersion programmes allow the students to be instructed in both the national language and target language simultaneously in the same classroom (Liu, 2022). This is a relatively holistic approach for a uniform improvement of the students’ quality under an education system. The academic achievement gap between the urban schools and rural schools in Malaysia was reckoned to be widened due to the segregated approach of dual language programme, as concerned by the chairman of Persatuan Penulis National Malaysia (PENAMA), Datuk Dr Ibrahim Ghafar. He believes that the programme should be conducted universally instead of discriminatorily on a selected student group (The Borneo Post, 2016). On a different note, it is a disappointing fact that the government has followed the same old disastrous road of PPSMI as this policy used to engender a wide performance gap between urban students and rural students in terms of Mathematics and Science subjects (Razid, 2010; Zaman, 2019).

Therefore, the non-workability of the PPSMI policy is resulted from the **faulty and erroneous implementation of policy** that encompasses a lack of appropriate teaching and learning resources, weak teachers’ preparedness, and the discrepancy between the performance of students in exams and their actual perceived English competency. On the other side, the failure of DLP policy can be attributed to both the **faulty implementation** and the **nature of**

**the educational policy itself.** The segregated approach of DLP policy equals to the faulty implementation whilst the educational policy itself failed to gain social acceptance from the local vernacular advocates due to its nature of promoting English language.

## **5.2 The Second Difference Between the Representation of PPSMI and DLP**

There is an embedded difference between the collocates of PPSMI and DLP's. The manual concordance analysis unravels that the positive and negative collocates of PPSMI are more surface and general in representation, yet the positive and negative collocates of DLP are deeper and more in-depth, in which most of them directly represent the positive and negative features of the policy. For instance, the only two positive collocates of DLP, "English" and "world", suggest the inherent connection between the improvement of English standard and the successful examples of DLP in the other places of the world. These collocates also imply the efforts made by the policymakers, especially Tun Dr Mahathir Mohamad, in enhancing the declining English proficiency among Malaysians by looking up and referring to the DLP models executed in the other countries. When it comes to the positive collocates of PPSMI, most of them generally connote the favourable attitude of the public towards the policy, such as "continue", "want", "rally" and "support" without concretely providing further ground for their positive attitude. "Better" is the only positive collocate of PPSMI that specifically suggests the positive features of the policy as the collocate is paired with words or phrases such as education, chance, future, and way to improve English. The same applies to the negative collocates of PPSMI and DLP. The negative collocates of DLP such as "approach", "Chinese", "vernacular", "affect", and "Tamil" come with a more concrete context in justifying the negative features of DLP policy than the negative collocates of PPSMI.

The interesting findings could be viewed as the recipients of the policy have clearer anticipation of the good sides and bad sides of an English reinforcement programme. Take for

example, how taxing and troublesome it would be to learn the involved subjects in English. A student stated that he or she eventually gave up on putting effort into learning Mathematics and Science in English although he or she wanted to because it is difficult to understand in English (Moses & Malani, 2019). Several previous pieces of research also outlined that teachers resorted to skipping some details of the lessons, translating the lessons to the Malay language, or even entirely sticking to monolingual education in Malay language (Unting & Yamat, 2017; Yunus & Sukri, 2017; Yusoff, 2018). The resistance of teachers and students to move on from the comfort zone rendered by Malay language is validated by the study of Yunus & Sukri (2017). Consequently, the public has a tendency to express more specified and solid comments and criticisms as embodied within the positive and negative collocates of DLP.

### **5.3 The Third Difference Between the Representation of PPSMI and DLP**

The last difference between the representation of PPSMI and DLP is discovered from the considerable disparity between the positive and negative collocates of DLP. The scarcity of its positive collocates and the affluence of its negative collocates manifest a distinct difference from the positive-negative collocates equivalence of PPSMI. These findings could be further justified by two rationales. The first one is the despondency of the involved interest parties and public towards the re-reform of English language education by the government. They could be having a higher level of unwillingness or reluctance to embrace the introduction of the second policy, dual language programme, after they have experienced the turbulent execution of PPSMI policy. A similar result is yielded by Yunus & Sukri (2017) whereby the euphoria of the recipients of the PPSMI policy has died down in dealing with the tumult and non-performance of the policy. The late Chief Minister of Sarawak, Tan Sri Adenan Satem, even condemned the inconsistency and constant change of the federal educational policies as a major impediment to the development blueprint of Sarawak (Karim, 2015). It is already a well-known fact that the public is fed up with the flip-flop journey of educational policy which is

reckoned as a manifestation of the government's unconsciousness or disregard of the cognitive development and language learning stages of children (Gadfly, 2009).

On top of that, the findings can also be explained as an outcome of the decentralisation education system rendered by DLP. Due to the segregated approach, the interest parties get to choose whether they want to opt for the Malay language or the English language as the MOI in teaching and learning Mathematics and Science subjects (Chin & Rajaendram, 2017, as cited in Balakrishnan, 2019). This is the first educational decentralization program carried out in Malaysia and education is a terrain full of debate and struggle when the power is decentralised, especially in a melting pot of ethics and races like Malaysia (Lee, 2007). When the public eventually has a chance to get involved in decision making and voice out their opinions, it has repercussion on the programme as more voices of criticism can be stemmed from the public.

With respect to that, the researcher unravelled a representation of DLP in terms of criticism from the context of negative collocate "sense" through manual concordance analysis. As displayed in figure 3 to figure 6, some public viewed the segregated approach as a reactive response to balance the demands of specific groups such as nationalists and English language advocates. The government and politicians pursue their agenda by pleasing or placating the local citizenry at the expense of the overall quality of the Malaysian educational system. This is in sync with the study of Balakrishnan (2019) which indicates that the improvement of the Malaysian education system has been stunted by political interventions and used as an adaptive mechanism to sustain political support from the schism – the group that is against PPSMI and the group that demands the use of English language to be the avenue in teaching mathematics and science subjects. Education policy has been more of a reputation management tool for the government to assure more votes in the next election (Nair, 2019). Anyway, this is an intriguingly thought-provoking finding gained from the collocational analysis as it is



unconventional for *The Star*, a mainstream news media, to report coverage that is unfavourable towards the interest of dominant parties.

Figure 3:

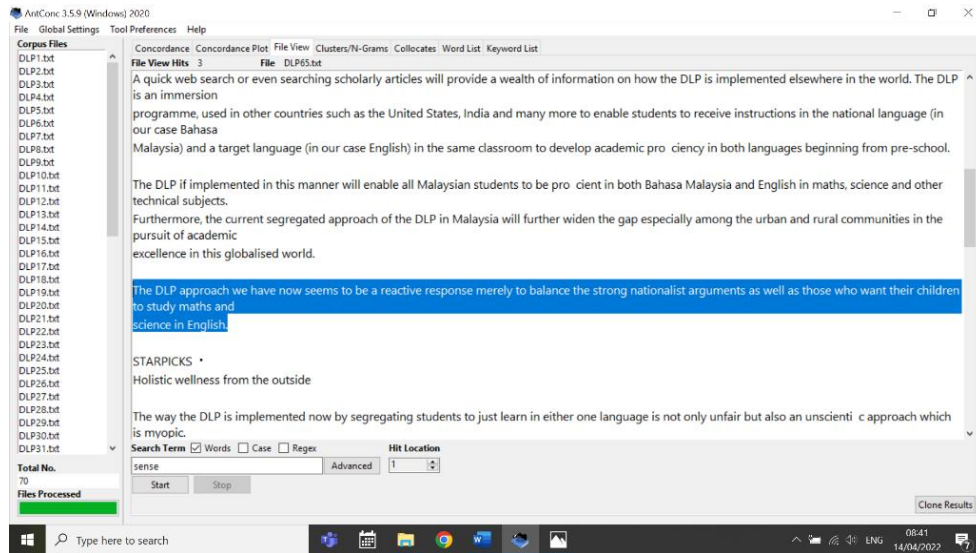


Figure 4:

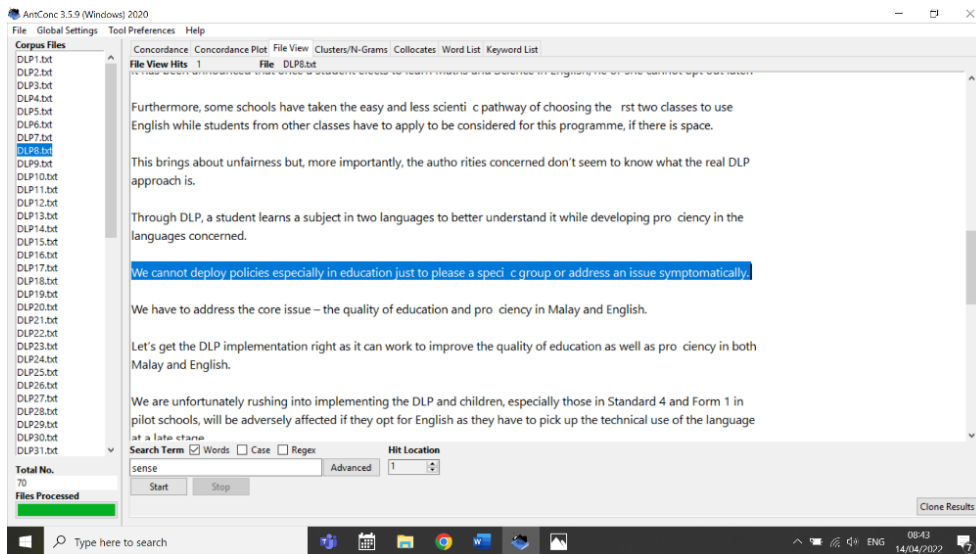


Figure 5:

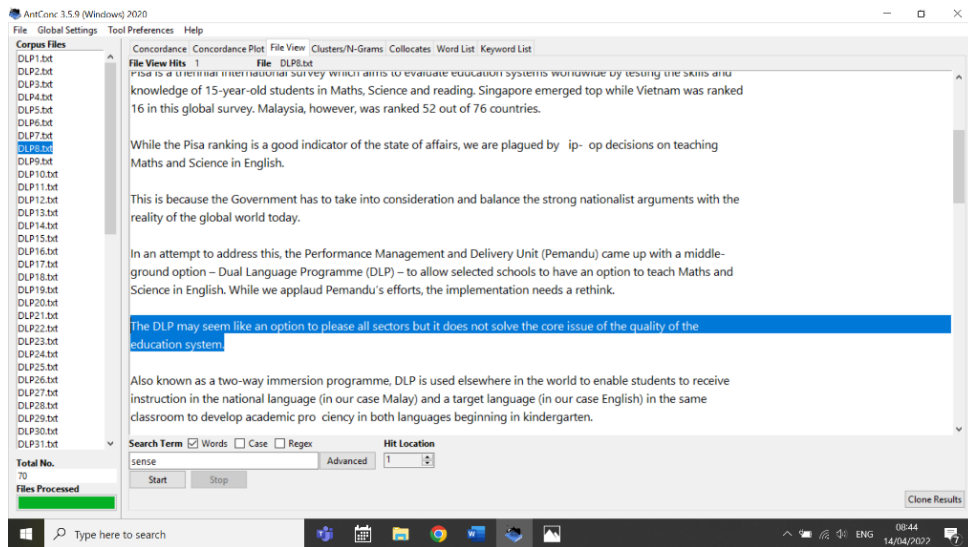
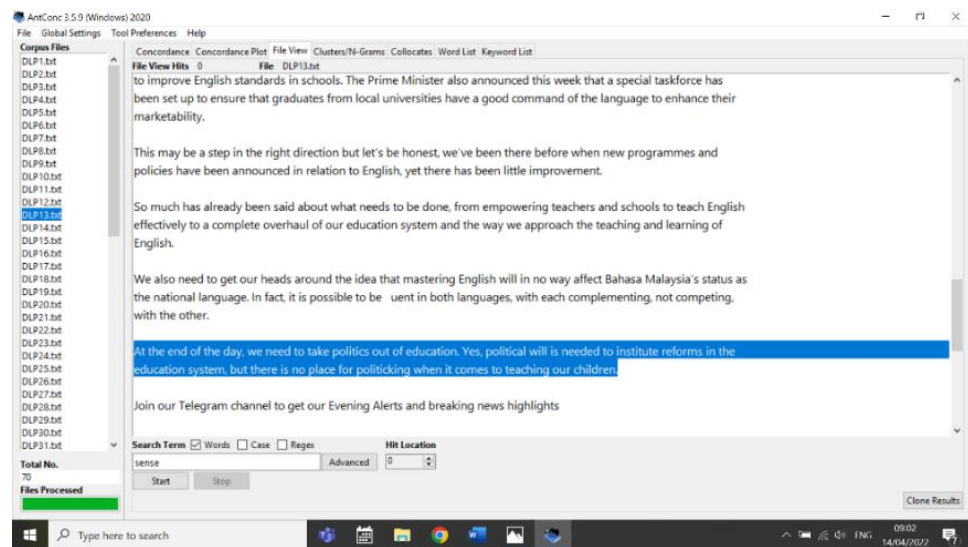


Figure 6:



## 5.4 Limitations and Recommendations

Like any other research, the research has several limitations that leave much room for improvement. Firstly, the chosen source of data collection for building a specialised corpus is a mainstream news media and the access to the coverage of political factors or minorities' interest is relatively fewer and incomprehensive. As such, future research on the representation of PPSMI and DLP with the use of alternative media is recommended to be conducted by the

researchers to compare the similarities and differences between the results gained from mainstream and alternative media. Another aspect is the small corpus size of the research corpus. The limited insight into the meaning and context provided by a corpus of 91732 tokens might call the accuracy and validity of the findings into question by some scholars as these factors count on the richness of corpus data. So, as for future research, it is highly recommended for the researchers who are in pursuit of a richer level of corpus textual data to attempt large specialized corpora for this subject area.

## **5.5 Conclusion**

To conclude, the research findings evidently answered the first and second research questions, the positive and negative representation of both PPSMI and DLP policies, by utilising one of the corpus linguistics approaches, collocational analysis. The research discussion also clearly delineated the similarities and differences between the representation of DLP and PPSMI to address the third research question by the application of discourse analysis and manual concordance analysis.

To reiterate, the similarity and differences between PPSMI and DLP policies reviewed in the discussion suggest a detailed clarification of the representations of both policies. In light of the similarity, PPSMI and DLP share the same objectives, which are to improve the mastery of English language skills among Malaysians and boost our abilities to a state of parity with the first-world countries. No matter how strongly they are bombarded by the public outcry, the notion behind the policies is of great interest. Gleaning into the perspective of differences, the first difference between the representation of PPSMI and DLP indicates that the non-workability of PPSMI policy is resulted from the faulty implementation of policy whilst the failure of DLP policy can be attributed to both the faulty implementation and the nature of the educational policy itself. Next, the second difference mainly suggests how the recipients of the

policy have clearer anticipation of the good and bad implications of an English reinforcement programme by analysing the more specified and solid comments expressed in the “columnists” and “letters to the editor” subpages under the “opinion” column on the website of The Star. The last difference reveals the despondency of the public towards the flip-flops of English language education and the dissatisfaction of the public towards the segregated approach of DLP and the politicking purpose of the government.

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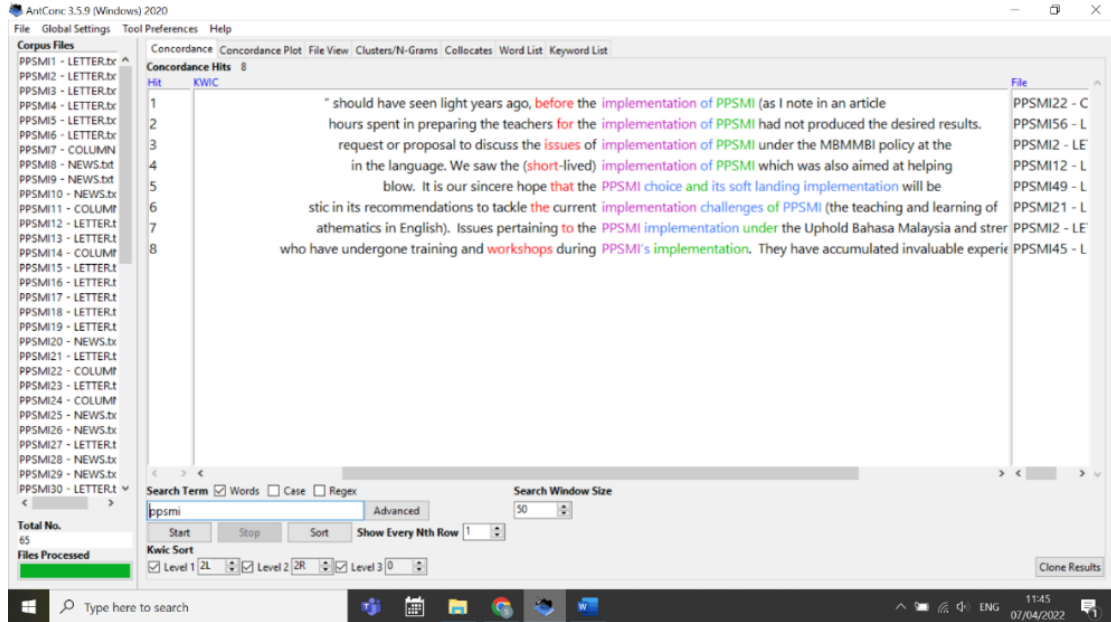
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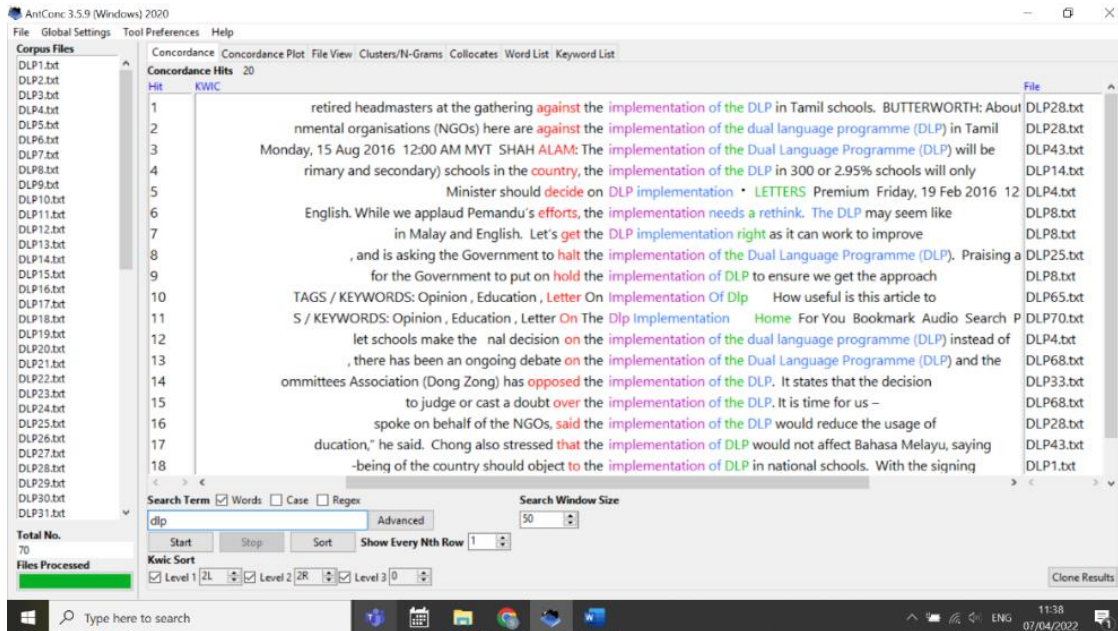
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# APPENDICES

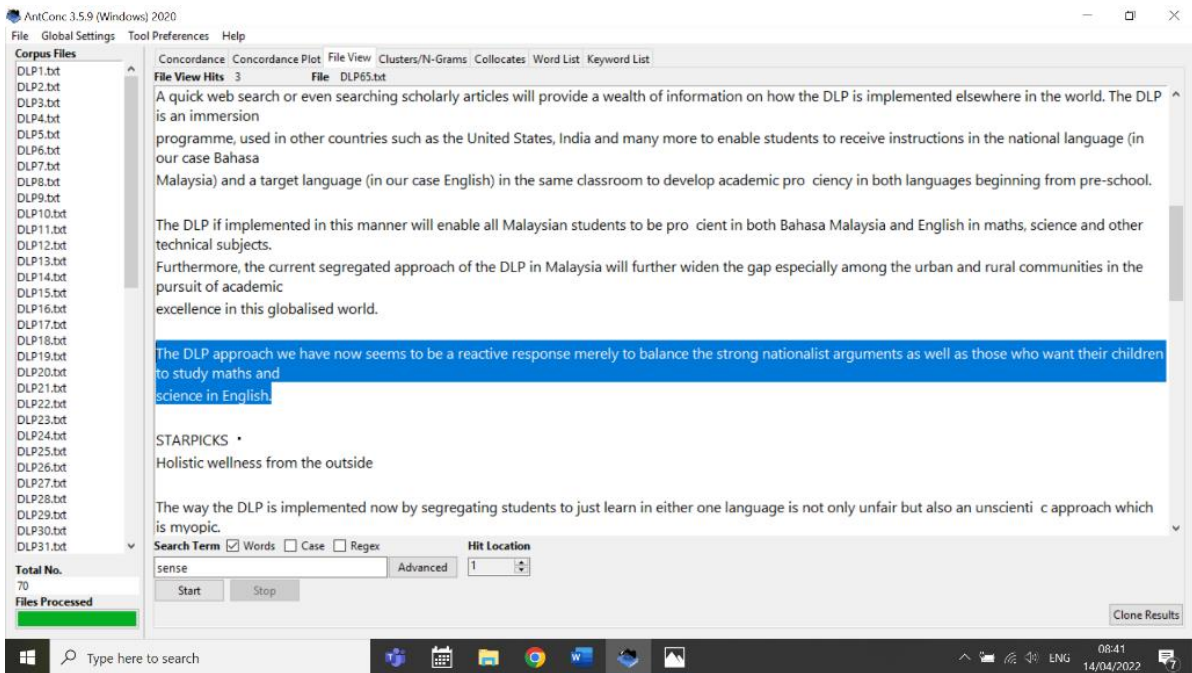
## Appendix A: Figure 1



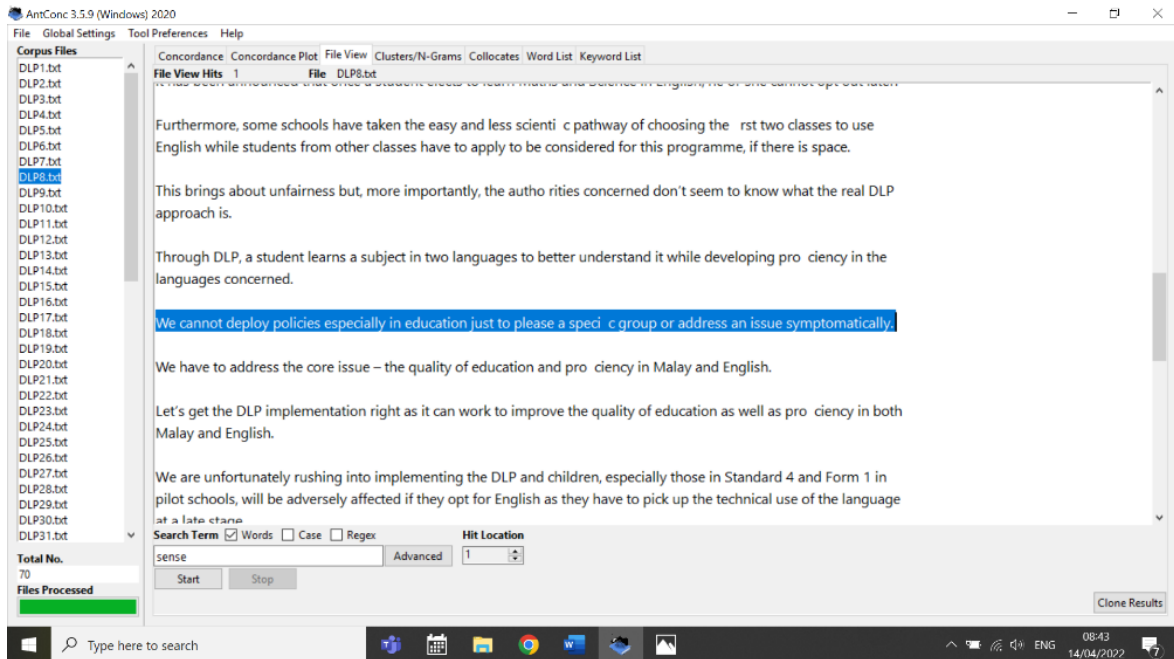
## Appendix B: Figure 2



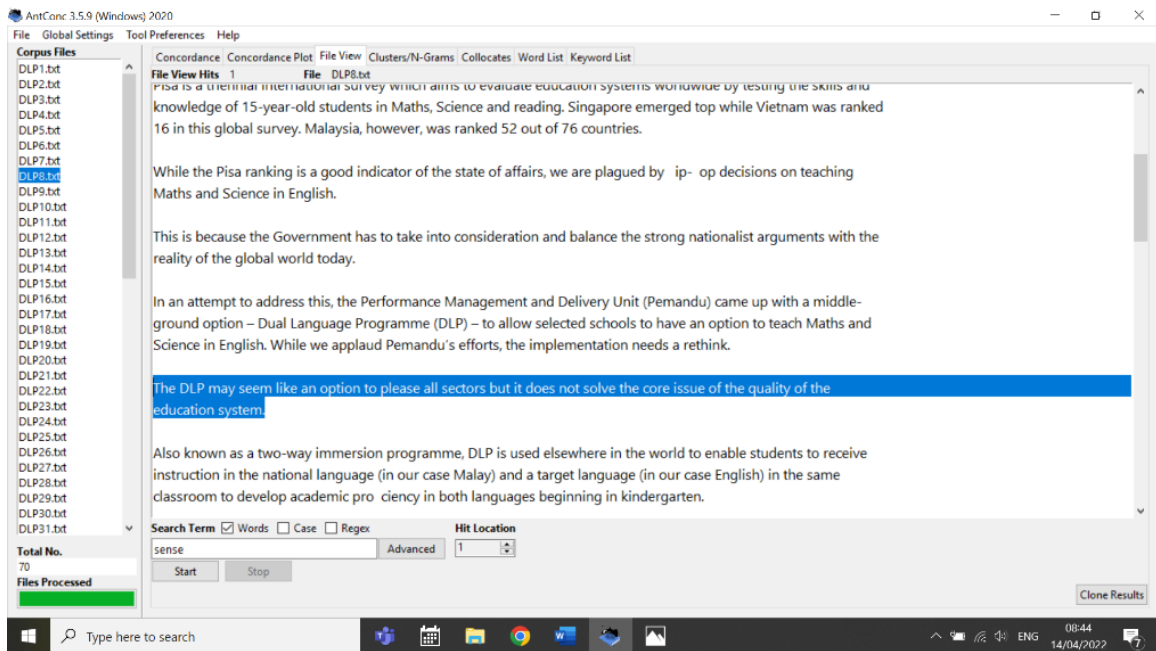
## Appendix C: Figure 3



## Appendix D: Figure 4



## Appendix E: Figure 5



## Appendix F: Figure 6

