

## Dual-Language Programme (DLP) Implementation in Malaysian Secondary Schools: from the Lenses of School Administrators (Implementasi Program Dual-Language (DLP) di Sekolah Menengah Malaysia: Dari Lensa Pentadbir Sekolah)

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### ABSTRACT

*The implementation of Dual-Language Programme (DLP) in the Malaysian education system has entered the fourth year since its inception. Resembling the previous educational policy, DLP emphasises the use of English as a means of instruction in the teaching and learning of Science and Mathematics. The execution of the programme requires the adherence of four main regulations, including schools' readiness to implement DLP. This study surveyed 80 school administrators' perception of the programme, the reasons the schools decide to take part in the programme, and the challenges encountered by the school in the programme. Questionnaire and interviews were used to collect data. Findings revealed that the school administrators have positive perceptions towards the DLP programme, where they believe that DLP should be continued, yet improvements are needed to make the programme more effective. In addition, the main reason that the schools decided to take part in the programme was because they perceived that the DLP as a means to develop and improve English language mastery among the students in particular as well as the teachers indirectly. The findings implicate that the implementation of DLP needs serious attention by the school administrators, that encompasses the resources and facilities provision, human resource development as well as DLP students' welfare.*

*Key Words: Dual-Language Programme (DLP); school administrators; programme acceptance; education; English as second language*

### ABSTRAK

*Pelaksanaan Program Dual-Language (DLP) dalam sistem pendidikan Malaysia telah memasuki tahun keempat sejak penubuhannya. Menyerupai dasar pendidikan sebelumnya, DLP menekankan penggunaan bahasa Inggeris sebagai medium pengajaran dalam pengajaran dan pembelajaran Sains dan Matematik. Pelaksanaan program ini memerlukan patuhan empat peraturan utama, termasuk kesediaan sekolah untuk melaksanakan DLP. Kajian ini meninjau 80 persepsi pentadbir sekolah terhadap program, keputusan sekolah mengambil bahagian dalam program ini, dan cabaran yang dihadapi oleh sekolah dalam program tersebut. Soal selidik dan temu bual digunakan untuk mengutip data. Hasil kajian mendapati bahawa pentadbir sekolah mempunyai persepsi positif terhadap program DLP, di mana mereka percaya bahawa DLP harus diteruskan, namun perlu dilakukan penambahbaikan untuk menjadikan program ini lebih efektif. Di samping itu, sebab utama sekolah memutuskan untuk mengambil bahagian dalam program ini adalah kerana mereka menganggap bahawa DLP sebagai kaedah untuk meningkatkan penguasaan bahasa Inggeris dalam kalangan pelajar khususnya dan guru secara tidak langsung. Hasil kajian menunjukkan bahawa pelaksanaan DLP memerlukan perhatian serius oleh pentadbir sekolah, yang meliputi penyediaan sumber dan kemudahan, pembangunan sumber manusia dan juga kesejahteraan pelajar DLP.*

*Kata Kunci: Dual-Language Programme (DLP); pentadbir sekolah; penerimaan program; pendidikan; Bahasa Inggeris sebagai bahasa kedua*

### INTRODUCTION

Dual Language Programme (DLP) entitles for the teaching and learning of content subjects using the national language and a target language. It allows for the development of academic learning besides nurturing literacy in the target language, whereby the

target language is utilised half of the time (Watzinger-Tharp et al. 2018; Freire & Valdez 2017). This means half of the instructional time will be conducted using the national language whereas the target language will accommodate the remaining time. The target language chosen depends on the context of the schooling system. In the global view, Mandarin, Korean and

Spanish are among the languages commonly partnered with English in the context of DLP in the United States (Chen et al. 2017; Lindholm-Leary 2016; Palmer & Henderson 2016; Lee & Jeong 2013). Besides the aforementioned languages, there is a growing pressure in utilising other languages in DLP. As elucidated by Christian (2016), Russian, Arabic and Vietnamese languages are among the languages commencing to be introduced in DLP but facing such obstacles in terms of scarcity of resources and experience. With that growing proliferation, the spread of DLP is also affecting the Malaysian education system.

In the global context, DLP is very prominent and prevalent in the context of United States' education system. As defined by the United States Department of Education (2015), dual language education is a bilingual education programme for which literacy and academic content are taught in two languages, English, and a partner language. In addition, dual language immersion schools have demonstrated a rapid growth in the United States and become very essential all over America (Steele et al. 2017; Tran et al. 2015). On another note, Japan has also begun to implement this programme which is a means to promote the International Baccalaureate diploma programme in Japan secondary schools (Yamamoto 2016). Indubitably, in discussing the implementation of DLP, it is imperative to understand the situation faced by other countries enforcing the teaching of Science and Mathematics in English, particularly for countries in which English is not the first language. Many countries have also introduced English as the main instructional medium in the teaching of these two subjects. This replicates Education First (2016), whereby English proficiency tends to be on a high level in regions which have language history to English. This includes South Africa (Mthiyane 2016), Hong Kong (Pun & Macaro 2019), Vietnam (Nguyen & Thi Kieu 2015), Philippines (Racca & Lasaten 2016) and Malta (Mifsud & Farrugia 2016). These studies have disclosed the experience undergone in the teaching of these subjects using English.

Before DLP commences in the Malaysian education system, there was a policy resembled the context of this programme, which was The Teaching of Science and Mathematics in English (PPSMI), introduced in 2002. Aimed at maximising the human capital to reach the standard of a developed nation (Ashairi et al. 2017), the policy regulated the teaching of all Science and Mathematics subjects using English as the instructional medium. This somehow agreed with Dearden (2014), whereby English serves as the instructional language used in the content subjects, especially for countries in which English is not the first language. The PPSMI policy was conducted in all levels of education since primary school up to the tertiary level. Prior to this, the policy was also

introduced as the government intended to acknowledge the decline in the English mastery among Malaysians and to accelerate the interest in Science and Mathematics fields (Hazita 2016; Melor & Saiful Islam 2017). Furthermore, Asiah (2008) proposed visualising Vision 2020 requires the mastery of English language besides excellence in the domains of Science, Mathematics, and information technology. Holding to these notions, PPSMI was executed.

Conversely, the policy was not able to cater to everyone's needs. After going through debates and refutes for a period of a decade, the policy was fully abolished in 2014. The PPSMI implementation was perceived to be a decade of failure from the macro, meso and micro levels of context (Ha et al. 2013; Mohandhas 2015). Prior to this, Bambang (2015) contended that the decline in the TIMSS result was clearly an evidence of the impact brought by the PPSMI policy. Meanwhile, the post-PPSMI era has witnessed that dissatisfaction was still prevalent among parents who disagreed with English not being used anymore as the instructional medium for and Mathematics, as revealed by Dayangku Alina (2018). This implies that some groups still prefer these two subjects to be taught in English. Hence, to cater to that needs, the government introduced an educational programme which has resemblance to the PPSMI policy, named the Dual Language Programme (DLP).

The Malaysian DLP was introduced in 2016. With 300 schools involved in the pilot project, the number has doubled up over the years. Though it is commonly perceived as the rebirth of PPSMI, it is different in terms of the implementation aspect (Ashairi et al. 2017). Two major aspects resemble PPSMI would be the subjects involved in the programme and the target language utilised in carrying out the teaching and learning process. Malaysian DLP advocates the use of either Malay or English as the language used in the teaching and learning of Science and Mathematics subjects (Ashairi et al. 2017; Norhisham et al. 2018; Nadiah & Melor 2019). The programme opens the opportunities for the interest group (schools, teachers, parents and students) to opt to their preferred language of instruction in the learning of Science and Mathematics. One prevalent thing is that both PPSMI and DLP espouse the use of English as the means to disseminate Science and Mathematics knowledge and information. Adhering to the four main rules, the DLP programme works on a voluntary basis, unlike the PPSMI which was a compulsory educational policy.

Few studies have been conducted since the inception of DLP in the Malaysian setting. These studies unravel the implementation of DLP from the lenses of teachers and students involved with the programme. As unearthed by Nadiah and Melor (2019), the urban DLP teachers displayed positivism towards the implementation, but disclosed their

worries regarding the lack of facilities and resources which may dampen the programme. This is somehow in agreement with Jesica and Hamidah (2017), which suggested for more support and guidance to be given to the DLP teachers. Norhisham et al. (2018) on the other hand claimed that teachers were moderately ready with their skills, knowledge, and interest. Ashairi et al. (2017) in their preliminary study revealed that language mastery influenced the DLP students' moderate level of readiness and confidence. Two years after the preliminary study, Ashairi et al. (2019) found positivity among DLP students, but language mastery and ineptitude of understanding persist as the main hindrance confronting them. This opposed Ashairi et al. (2018) in their study involving non-DLP students who displayed positivity in their language capabilities and attitudes to learn using English. As more past researches zoomed into the lenses of students and teachers and little is known pertaining to the school administrators' views, hence, this study aims to unravel the administrators' perceptions who play a fundamental role in the implementation of DLP in their respective schools. The following are the research questions aimed to be elucidated via this study.

1. What are the administrators' perceptions of the programme?
2. Why do the school decide to take part in the programme?
3. What are the challenges encountered by the school in the programme?

#### DUAL LANGUAGE PROGRAMME (DLP)

Dual Language Programme (DLP) may vary in structure, implementation, and enrolled student populations according to the context and situation. This is indeed applicable to the context of DLP in Malaysia, which may seem to differ from what is practised in the Western countries. The United States Department of Education (2015) has generally categorised it into two main models. The first one is two-way DLP (also known as two-way immersion programme), in which the English learners who are fluent in the partner language and English-speaking peers are integrated to receive instruction in both English and the partner language. Prior to that, one-way DLP depicts students from predominantly one language group receive instruction in both English and a partner language. One-way DLP may serve predominantly English learners (also known as developmental or maintenance bilingual programs); predominantly English-speaking students (also known as one-way/world language immersion programme); or predominantly students with a family background

or cultural connection to the partner language (also known as heritage or native language programme). In the context of Malaysian DLP, the teaching and learning of the content subjects are taught using two different languages (Malay and English) and students are given the flexibility to choose their preferred instructional medium in the lesson.

Developing proficiency in both the mother tongue and the target language is one of the aims of DLP. When students are enrolled in DLP, they will be able to engage themselves more in the target language besides upholding their own mother tongue or the national language. As an example, Malaysian students will have more contact hours with the English language when they are taking part in DLP. Besides enhancing the national language (Malay), they would also nurture their competency in the English language. Learning Science and Mathematics entitles students to keep abreast with the advancement in science and technology, as the knowledge is easily accessible in English (Mohd Fadhili et al. 2009). DL students were regarded as proficient in two languages and made outstanding performance in both languages across the grade levels in both types of DL programme (Lindholm-Leary & Howard 2008). In another point of view, Lindholm-Leary (2012) affirmed that English language learners were identified as being proficient in the English language when they participated in the DL programme rather than enrolled in the mainstream programmes. Thus, DL is regarded as a promising tool that would indirectly assist and nurture the language proficiency level of an individual.

#### METHODOLOGY

##### RESEARCH DESIGN AND INSTRUMENT

This study is a survey which employed the QUAN→qual sequential mixed-method design, where the core component is quantitative, and the supplemental component is qualitative (Morse 2016). The instrument of this study is a questionnaire, which comprise of 4-point Likert scale questions (QUAN component) to gather data for the first research questions, and open-ended questions (qual component) to gather data for the second and third research question.

The questionnaire was developed by the researcher based on the Malaysian DLP guidelines and with reference to Junaidi (2007). It consisted of three sections containing 14 items: the demographic profile of the respondents, understanding of the programme objectives, and acceptance of the programme. The questionnaire was validated by three experts of different fields such as language, psychometric and content. After amendments were made based on the

experts' recommendations, the instrument was piloted to 20 respondents. Reliability test was generated, and the Cronbach's Alpha value obtained was 0.838. This indicates that the instrument has a good reliability index.

As for the open-ended questions, the respondents were inquired three questions regarding: i) the reasons of school participation in the programme, ii) their opinions about the programme, and iii) the challenges faced by the school in the implementation of DLP. These questions were designed to unravel the respondents' unheard voices and support the findings from the questionnaire. Furthermore, it is meant to gather more information pertaining to the implementation of the programme in the DLP schools.

#### SAMPLE

This study involved 80 administrators purposely selected from Malaysian secondary schools implementing DLP. The questionnaires were distributed to the respondents and clarifications were made to enlighten them. The data collection took almost three months as the distribution of the samples varied from one state to another. The researcher also sought help from some friends who were teaching in the DLP schools to gather the respondents' participation. Initially, 92 respondents received the questionnaire, but due to certain unexpected circumstances, the final valid responses were only 80. From the total of 80 respondents, five administrators were invited for the interview session.

The following Table 1 describes the demographic profile of the respondents.

TABLE 1. Demographic Profile of the Respondents.

Gender	Male	16 (20%)
	Female	64 (80%)
Type of School	SMK	35 (44%)
	SMKA	21 (26%)
	SBP	24 (30%)
Locality	Urban	44 (55%)
	Rural	36 (45%)

#### DATA ANALYSIS METHOD

The quantitative data from the questionnaire were analysed descriptively, using frequency, percentage and mean. The mean score for each item was interpreted based on four levels (very negative, negative, positive and very positive). The analysis was done using Statistical Package for Social Sciences (SPSS) Version 20. Table 2 shows the mean score interpretation levels.

TABLE 2. Mean Score Interpretation

Mean	Level
1.00-1.75	Very Negative
1.76-2.50	Negative
2.51-3.25	Positive
3.26-4.00	Very Positive

Source: Feldman & Sanger (2007)

On top of that, responses from the open-ended section were analysed using content analysis method. The researcher extracted the codes and categories that would provide meaningful data to the study and identified themes to answer the second and third research question.

#### FINDINGS AND DISCUSSION

##### ADMINISTRATORS' PERCEPTIONS OF THE DUAL LANGUAGE PROGRAMME (DLP)

The perceptions are determined by two aspects: i) understanding of the programme objectives, and ii) acceptance of the programme.

Table 3 describes the respondents' understanding of the programme objectives. As illustrated from the table, the respondents were found to be positive and very positive with the objectives of the programme as outlined by the Ministry of Education. The four highest scoring items reflected the respondents' agreement on how DLP is highly related to the English mastery issue besides for the purpose of global marketability. However, when it comes to developing interest in Science and Mathematics, the result was not as promising as the other four items, with only 65% and 71% agreement. It can be concluded that the respondents were inclined towards the perception that the implementation of DLP would attain the objectives on English language more than developing interest towards Science and Mathematics.

Table 4 displays the respondents' acceptance of DLP. Based on the table, the respondents have disclosed positive and very positive acceptance of DLP. In spite of their positivity, it is interesting to note that the highest scoring item was 'DLP should be improved'. This implies that DLP is not a perfect programme and requires improvements from various aspects. Resembling the finding from the previous section, the respondents' acceptance of the programme is also associated to the needs of enhancing language mastery as indicated by item 1, 4 and 5. The respondents affirmed that DLP would assist the development of English among the students as well as

teachers indirectly. Even though the respondents contended that DLP should be improved, they still believed that it should be continued as it is well-received by the administrators. As revealed earlier, respondents' acceptance of DLP as a means to develop

Science and Mathematics knowledge recorded the lowest mean score. Hence, it can be ascertained that the respondents perceived that DLP would improve English skills more than Science and Mathematics skills.

TABLE 4. Respondents' Acceptance of the Programme

No.	Item	Mean	Interpretation
1	DLP is a good programme to increase English mastery	3.29	Very Positive
2	DLP is a good programme to develop Science knowledge	3.05	Positive
3	DLP is a good programme to improve Mathematics skill	2.91	Positive
4	DLP provides bilingual professional workers for the country's development	3.29	Very Positive
5	DLP implementation is relevant now when knowledge develops rapidly in English	3.34	Very Positive
6	DLP implementation is well received by school administrators	3.21	Positive
7	DLP implementation should be continued	3.15	Positive
8	DLP implementation should be improved	3.49	Very Positive

TABLE 3. Respondents' Understanding of the Programme Objectives

No.	Item	Mean	Interpretation
1	DLP increases the learning interest in Science	2.88	Positive
2	DLP increases the learning interest in Mathematics	2.77	Positive
3	DLP increases the exposure to the English language in the classroom	3.40	Very Positive
4	DLP strengthens English mastery	3.35	Very Positive
5	DLP eases students in getting Science and Mathematics exposure at the international level	3.39	Very Positive
6	DLP broadens students' marketability in the employment sector	3.23	Positive

## REASONS TO TAKE PART IN THE PROGRAMME

Irrefutably, the school has to adhere to the four regulations before they could commence DLP. However, it is imperative to fathom what underlies the schools' decisions to implement the DLP programme. From the open-ended responses, it was emerged that the main reason for the schools to take part in the DLP programme is to develop the students' competency in the English language. The respondents claimed that: *"Teachers and students are exposed more to the use of English language and given the chance to explore beyond the subjects like Math, Science and English"*, *"We see this as an effort to improve English proficiency"*, *"The English result improved as DLP programme implemented"*, *"Teachers could enhance their English skills via the courses provided by the Ministry"*, and *"Students gained more confidence in communicating in English"*.

These excerpts indicated that improving the students' proficiency in English language has somehow led to the school's decision to enrol in DLP. As reinforced by Raja Mazuin and Ramesh (2015), mastering English is an essential prerequisite for Malaysia to move towards becoming a developed nation as English is the country's second language. Hence, it is not surprising to reckon the influence of English language in the education system that leads to the DLP participation by the schools.

## CHALLENGES FACED IN THE PROGRAMME

From the open-ended questions data, two major challenges emerged concerning the implementation of this programme, which are students' language mastery and teachers' competency.

## Students' Language Mastery

The first challenge faced in the programme deals with students' language mastery. Although some schools streamed the students in the DLP class, a number of them were still struggling with their own language competency and proficiency. In fact, some students were not fundamentally strong in their language mastery. Majority of the students were not speaking English at home and they did not learn Science and Mathematics in English during their primary education. As language skills deal with productive (speaking and writing) and receptive (listening and reading) skills, some students might be good at the former one as compared to the latter one. Therefore, it is not alarming to acknowledge this challenge. On the other hand, the situation is different for schools which implement DLP in all classes. The pressure will be more as even those students from the end classes might face problems in reading and spelling. Hence, this may be a serious challenge to the school as students who are weak in English might not be able to comprehend the DLP lessons well.

These are explained by the statements from the respondents: *“Not all students who involve in this programme can understand or speak fluently”*, *“Students’ background who are Malay-oriented and weak in English”*, *“As students’ English mastery is weak, it makes students difficult to understand the terms in English”*, and *“Students come from primary schools in which the instructional medium was Malay for Science and Mathematics”*. To further illustrate the challenge, respondents asserted that: *“The current social status of students from Kelantan and Terengganu who are less mastering the English language”*, *“Students who excel in their UPSR are not necessarily capable to follow the DLP lessons well”*, *“Students transfer in from non-English speaking school/background face difficulties in the class”*, *“There is quite a big gap in terms of English foundation usage among the form one students”*, and *“Rural area students face culture shock in the lessons and difficult to understand certain words in English”*.

#### Teacher’s Competency

Besides students’ language mastery, another issue faced by the school is regarding the teachers’ competency. As these are non-language teachers, schools are facing problems in recruiting Science and Mathematics teachers who are competent in English as revealed by these statements by the respondents: *“A retired DLP teacher was replaced by a young teacher who is not able to teach using English”*, *“Low level of English language proficiency among the teachers”*, *“The main challenge is to appoint DLP teachers as not all teachers want to teach DLP”*, *“Trained teachers who can teach these subjects well and well-versed in English”*, and *“We don’t have enough teachers who are proficient in teaching Science in English”*.

They were confronted with the issue of appointing which teacher to teach the DLP class. Some teachers were found reluctant to teach DLP class due to their English incompetency as indicated by these responses: *“We lack of teachers who are willing to teach Science and Mathematics fully in English”*, *“Not many teachers are able and willing to teach in English”*, *“Lacking of Science and Mathematics teachers who are competent in English”*, and *“Insufficient teachers who are skilful in teaching in English”*.

As a consequence, some administrators would randomly assign teachers to teach in English. Some would appoint overseas graduate teachers believing they are competent in English although they had graduated for more than a decade. Despite the fact that some were previously teaching under PPSMI policy, the competency might be questioned as it was in the history. To curb this issue, some schools would send their DLP teachers to courses aiming to develop their language competency. Similarly, the English panel

teachers would be lending their help to the Science and Mathematics teachers in setting the exam questions or on any random occasion.

#### CONCLUSION

This study has determined school administrators’ perceptions of Dual Language Programme (DLP), the reasons the schools decide to take part in the programme, and the challenges encountered by the school in the implementation of the programme. Findings revealed that the school administrators have positive perceptions towards the DLP programme, where they believe that DLP should be continued, yet improvements are needed to make the programme more effective. In addition, the main reason that the schools decided to take part in the programme was because they perceived that the DLP as a means to develop and improve English language mastery among the students in particular as well as the teachers indirectly. However, without doubt, both teachers and students’ competency and proficiency in the English language pose a great challenge in the implementation of this programme. The findings implicate that more actions and provisions are needed to render to solidify the current situation, in enhancing the language mastery among the teachers and students. School administrators would need to organise more courses and trainings that may assist the teachers besides boosting their confidence to teach in English. Similarly, schools need to promote more English language usage among the students via outdoor activities to engage them more with the language. Otherwise, the issue of language mastery will never be rectified. In encapsulation, the DLP will be a successful programme should more considerations and remedies are given to solidify its implementation. As this is the fourth year of its implementation, DLP has a long way to go to prove that it can be a sustainable educational programme. With the history of PPSMI policy, we should not repeat the same mistake. Improving the implementation of the programme will eventually assist the programme to be a better one benefitting the nation. The goal of the programme is very straightforward, aiming to develop the interest in Science and Mathematics while at the same time enhance the English language. Hence, it takes everyone in the education system to work hand in hand to ensure the success of the programme. It is imperative that this study has its own limitations. Relying only on eighty respondents whereby there are more than a thousand Malaysian secondary schools involved in DLP might not suffice to really understand the existing situation. In addition, focusing on administrators’ views solely may not address other issues that confront the school. Hence, it is suggested for future research to engage

with more administrators of DLP schools. Furthermore, it is also recommended to investigate the administrators' perceptions on more administrative part such as the school facilities, resources, exam matters besides parents' responses towards DLP. That would somehow triangulate the data in a more comprehensive and detailed overview.

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