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THE EFFECTS OF INQUIRY-BASED RECIPROCAL TEACHING MODULE (IBRM) ON MALAYSIAN ESL LEARNERS' READING COMPREHENSION: A QUASI-EXPERIMENT

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Abstract:

Despite the great appreciation on high competency in ESL reading, the results of PISA reading cautioned on the ineptitude of Malaysian ESL learners and depicted the heightened prevalence of reading difficulties among them. Although various curriculum modifications and ESL reading interventions were developed to facilitate reading instruction in the classroom, learners' reading performance is still unsatisfactory. This ten-week quasi-experimental study tested an inquiry-based reciprocal teaching module which was aimed at enhancing secondary school learners' reading comprehension through the utilisation of effective reading strategies. A total of 84 Form Four ESL learners were randomly selected to be the participants, with an equal number of 42 participants randomly assigned to either experimental or control group. Independent sample t-tests and paired sample t-tests were performed to test the hypotheses. The results indicated that the inquiry-based reciprocal teaching module has positively and significantly enhanced ESL learners' reading comprehension performance, thus was effective in improving the learners' reading comprehension.

Keywords:

ESL Learners, Reading Comprehension, Inquiry-Based Learning, Reciprocal Teaching, Module

Introduction

The ineluctable importance of reading as a fundamental skill for knowledge consolidation has profoundly affected the learners to use this skill as a tool for academic attainment. The prerequisite to the reading comprehension process in a second language is the intertwining of learners' linguistics and background knowledge, the appropriate application of cognitive and metacognitive reading strategies (Lian & Azlina, 2020; Sheorey & Mokhtari, 2001), and correct manoeuvring through the complexity of the textual evidence (Grabe & Stoller, 2020; Elleman & Oslund, 2019).

Acknowledging the heavy emphasis on reading as the most essential skill to master in an academic setting, the second shift in the Malaysia Education Blueprint (MEB) 2013-2025 manifests various efforts and exhausting modifications to revamp the reading curriculum. In secondary education, the introduction of the Standard-Based English Language Curriculum for Secondary Schools (SBELC) explicates the main purposes of reading as to focus on the learner's ability to understand the meaning and to extend thinking through independent reading (MOE, 2018). Despite prevalent efforts that have been put into enhancing learners' reading comprehension, many Malaysian ESL learners still lack essential reading skills (Ulu, 2019; Hiew, 2012), and thus face difficulties in understanding complicated texts (Ting et al., 2021).

Although ample evidence about the value of reading strategies that yield substantial reading comprehension gains (Brevik, 2019; Brown, 2017; Pearson & Cervetti, 2017), there continues to be very little explicit reading strategy instruction in classrooms (Klapwijk, 2016). Failure of the teachers to regard reading comprehension as an important component in the reading process and teach it by transferring knowledge based on the teachers' understanding and experiences (Brevik, 2019; Pearson & Cervetti, 2017) may result in unproductive outputs (O'Reilly et al., 2004). In such situations, a rebranding of instructional strategy and contemplative modification of teaching approaches that include a repertoire of comprehension strategies (Mokhtari & Reichard, 2002; Pressley, 2000) is imperative in enhancing reading comprehension in learners.

Literature Review

ESL Reading in the Malaysian Secondary School Context: Situation and Challenges

In Malaysia, the implementation of SBELC that resulted from the alignment of the language curriculum framework with the Common European Framework of Reference for Languages (CEFR) stipulated heightened immersion in the importance of reading in Malaysian Education system. This alignment resulted in the evolution of student-centred teaching approaches such as cooperative learning, problem-based learning and inquiry-based learning (MOE, 2013). In reading, focusing specifically on learners' ability to negotiate meaning and inculcate higher reading independency (MOE, 2018), cognitive and metacognitive reading strategies such as predicting, guessing meaning of words from context, scanning, skimming, summarising, reading aloud, making connections, inferring and questioning are some common strategies that are highlighted to accommodate learning differences.

Even though Malaysian ESL learners have years of exposure to developing reading competency, many still fail to grasp such relatively sophisticated skills and strategies (Ulu, 2019; Hiew, 2012). The results of Malaysian ESL learners' reading literacy rate as compared with the international standard are in appalling condition (Ting et al., 2021). This directly cautioned on the ineptitude of Malaysian ESL learners and depicted the heightened prevalence

of reading difficulties among them. The impediment to addressing this perplexing poor reading comprehension problem is to use reading strategies, both cognitively and metacognitively, to establish a valid meaning negotiation between the reader and the text (Elleman & Oslund, 2019).

Skilled readers possess good judgment in the selection of effective reading strategies (Lian & Azlina, 2020) and can merge the elicited textual information with their background knowledge (Grabe & Stoller, 2020). Research in reading strategies in ESL classrooms has shown positive correlations between the modelling and scaffolding of the reading process and enhanced progress in reading comprehension (Okkinga et al., 2016). The crucial role played by ESL teachers in addressing accurate reading comprehension strategy instruction (Brevik, 2019; Gunning & Oxford, 2014; Sheorey & Mokhtari, 2001) is indisputable. Similarly, Klapwijk (2015) reckons that learners' reading comprehension deterioration correlates with the paucity of appropriate guidelines, effective teaching methodologies and pedagogical expertise among educators.

However, the focus in the teaching of reading comprehension in Malaysia predominantly reside with the search for the right answers (Yee & Su, 2020) and completion of the comprehension tasks (Harrison Mohd Sidek, 2010). The needs analysis conducted by Ting et al. (2021b) implied that the deciding factor that affect reading comprehension deficiency is learners' lack of use of metacognitive reading strategies. Therefore, the need for the teaching strategies to evolve in order to adapt to the changes is inevitable.

Consequently, as previous research highlighted on ensuring the awareness of the reading purposes and appropriate application of reading strategies to overcome reading complexities and counterbalancing textual knowledge (Oktovia & Fitrina, 2017), the integration of research-based reciprocal teaching strategies into a structured inquiry-based learning model formed the foundation of the pedagogical approach adopted into the rebranding of instructional strategy and alterations in the teaching methodologies of reading comprehension in classrooms.

Inquiry-Based Learning in Malaysian Secondary Reading Curriculum Framework
Inquiry-based learning (IBL) is a pedagogical approach that allows self-reflection and peer interaction that resulted in learners' change of initial perspectives as they reorganise and redefine the learning process (Bybee, 1997). A manipulation of the nature of inquiries and problem-solving to develop knowledge (Suarez et al., 2018; Darling-Hammond, 2008), IBL ensures the production of creative and critical learners through questioning technique (Lee, 2014) that allows the development of cognitive and metacognitive strategies and discovery learning. Although inquiry-based learning is predominantly adopted into the field of science and mathematics, the concept and nature of inquiry-based learning are congruous with ESL classrooms (Lee, 2014).

In the SBELC reading curriculum, learners' reading goals are determined by the content standards. These standards highlight independent reading that focuses on learners' understanding and meaning interpretations. Besides content standards, expectations of the learners' performance are highlighted in the five main strands of learning standards. They are using reading strategies, understanding main ideas, understanding details, using sources and reading for thinking development. With CEFR forming the basis in the development of the English language contents, standards of learning and instructional approaches (MOE, 2018),

essential components of a lesson such as themes, topics, learning and content standards, cross-curricular elements and differentiation strategies are encompassed in SBELC. It also includes a performance standard which is used as a reference tool on the level of development of learners as measured by the standards and it indicates the position of learners in the stage of learning development or progress namely: basic user (A1 and A2 levels), independent user (B1 and B2 levels) and proficient user (C1 and C2 levels) (MOE, 2018).

The incline towards IBL is manifested through the teaching and learning strategies that include both cognitive and metacognitive processing of information. This ranges from cognitive reading activities such as paraphrasing and summarizing to metacognitive reading activities such as understanding the purpose of using certain reading strategies to achieve the intended reading purpose (MOE, 2018). As these strategies accommodate differences in learning styles, educators' expertise in deciding the most appropriate strategies that adhere to their learners' needs is vital in ensuring success in the learning process. Adoption of alternative approaches may also be required when the needs arise. However, educators have to bear in mind that the success of inquiry-based learning lies in the nature of the inquiry that emphasizes knowledge-building through guided learning and small group discussions (Khalaf & Zin, 2018; Lee, 2014; Barrow, 2006).

The main aim of IBL in reading is to encourage explorative learning, teaching and learning activities that prioritize learners' formulation of inquiries such as posing questions, giving opinions and suggestions, obtaining information, exploring their environment, justifying arguments, solving problems and applying the new knowledge into new situations and reflecting on own learning, are included to effectively sustain the learners' curiosity by raising their interests, moulding their attitudes, and inculcating creative and critical thinking. This practice ensures learners' engagement by promoting authentic language learning situations (Aditomo & Klieme, 2020; Wale & Bishaw, 2020).

IBL in ESL classrooms enhances understanding and develops knowledge through a non-judgmental and dynamic exploration of real-world problems or challenges. Hence, makes it possible to change the learners' participation from passive observants to active participants (Blessinger & Carfora, 2015), and to create more critical, complex and autonomous learners (Gomez-Gonzalez, 2017). Apart from sustaining learners' attention and enhancing their level of participation, IBL gains momentum in second language instruction because it also functions as a tool to promote active engagement in social interaction. Wale and Bishaw (2020) postulated that the emergence of more reflective and self-directed learners is escalated by the positive, effective and engaging learning experience in IBL.

Reciprocal Teaching Strategies as Reading Intervention
One of the research-based, systematically documented and empirically proven reading comprehension intervention models is the Reciprocal Teaching strategies. Aiming at designing an approach that helps learners to acquire reading comprehension strategies and later become self-regulated readers, Palincsar and Brown (1984) refer to reciprocal teaching as an explicit and scaffolded instruction of four reading strategies in a small group of peers. This collaborative comprehension-monitoring instructional procedure disseminates metacognition during the process of meaning construction using four concrete reading strategies.

Table 1 illustrates the four strategies; predicting, clarifying, questioning and summarising.

Table 1: Reciprocal Teaching Strategies

Strategies	Description
Predicting	Predicting allows the learners to draw and test inferences from the text regarding forthcoming content at critical points in the reading process. In attempting predicting for a subsequent paragraph of a text, learners are encouraged to look for any cues that served as hints of the overall organization of the passage. Their prediction, therefore, represents their most recent hypothesis about the author's intention in writing the text.
Clarifying	Clarifying occurs when learners must draw upon the collective knowledge of the team members in order to understand new vocabulary, unclear reference words, and unfamiliar or difficult concepts (Palincsar, 1986). Clarifying helps learners to seek the essence of ideas, main ideas and themes contained in the text by eliminating confusion either in the text or in the student's interpretation of the text.
Questioning	Questioning allows learners to concentrate on main ideas and acts as constant check for immediate level of content understanding. Seymour and Osana (2003) posit that in questioning, learners seek helps in explicating the main ideas of the passage whereas clarifying is the stage where learners elucidate unknown vocabulary and concepts.
Summarising	Modelled as a self-review or self-test activity, learners simultaneously checking their understanding on the major content of the text as they perform the summarising task. Inability to reach adequate synopsis functions as an alarm that remedial action such as rereading is required and not as a failure to perform a particular decontextualized skill. In short, summarising aims at understanding and remembering the text content.

Source: Adapted from Palincsar and Brown (1984)

Palincsar and Brown (1984) postulated that Vygotsky's (1978) Zone of Proximal Development (ZPD) and expert scaffolding are pivotal to reciprocal teaching strategies. Learners' ability to formulate good questions has to be scaffolded to higher levels of performance by the expert, thus shifting the educator's role to constantly evaluate the learner's developing skills and to teach to the upper limit of the child's ZPD. Crucial to the successful implementation of reciprocal teaching, scaffolding takes the form of hints, cues, questions, and discussion that are designed to assist the learners in developing task-related skills. These procedures limit the tasks to make them manageable, motivating, pointing out critical features, and demonstrating solutions to problems (Palincsar & Brown, 1984). Therefore, an expert acts as a guide, shaping the learning efforts of the learners and providing support for the learning until learners can perform the tasks independently (Rosenshine & Meister, 1994).

The adoption of reciprocal teaching strategies in reading comprehension intervention is due to its effectiveness in improving reading comprehension by allowing educators to model and engage learners, individually and socially, in exploring and critically evaluating the texts through the utilisation of four main strategies (Palincsar & Brown, 1984).

Methodology

Research Design
Based on the reading comprehension problems faced by learners, an inquiry-based reciprocal teaching instructional module was proposed as one of the reading interventions to enhance learners' reading comprehension. A ten-week (early April 2022 to early June 2022) pretest-posttest quasi-experimental study, was conducted to determine whether the effects of the proposed inquiry-based reciprocal teaching module are statistically significant and could improve secondary school ESL learners' reading comprehension performance.

Research Question and Research Hypotheses
The research question that guided the study was:
RQ: Does the Inquiry-Based Reciprocal Teaching Module improve the learners' reading comprehension scores?

The hypotheses that were being tested in this quasi-experimental study are as follows:
HO_1: There is no significant difference in the pre-test reading comprehension mean score between the experimental and the control group.
HO_2: There is no significant difference in the post-test reading comprehension mean score between the experimental and the control group.
HO_3: There is no significant between the pre-test and post-test reading comprehension mean scores in the experimental group.
HO_4: There is no significant between the pre-test and post-test reading comprehension mean scores in the control group.

Research Participants
One school in the district of Penampang, Sabah was randomly selected to be involved in the study. A total of 84 Form Four students from that particular school was randomly selected to be the participants of the study. They were then randomly assigned to experimental and control groups. The characteristics such as age, number of students in the group, English language performance and pre-test scores were found to be equivalent between these two groups.

The experimental group (n = 42) received treatment using the Inquiry-Based Reciprocal Teaching Module (IBRM) and the control group (n = 42) received the conventional reading comprehension method. The content in both classes was delivered by the same teacher. Table 2 shows the characteristics of both groups.

Table 2: Characteristics of the Experiment and Control Group

Characteristics	Participants	
	Experimental	**Control**
Participants' Age	16 years old	
Number of Participants	42 students	42 students
Level of Proficiency	Advanced - Intermediate	
English Lesson Per Week	3 hours per week	

Instrument
The instrument for this study was the Inquiry-Based Reciprocal Teaching Module (IBRM) developed by the researcher (Ting et al., 2021). The module weaves reciprocal teaching

strategies (Palincsar & Brown, 1984) into the BSCS 5E model (Bybee et al., 2006) for classroom-based comprehension-fostering and comprehension-monitoring activities. Designed to complement the new curriculum and the CEFR, this eight-unit module includes the content standards, learning standards and performance standards for the Form Four reading syllabus in the SBELC. The activities in this module also adhere to the four main themes in SBELC, thus easing the implementation of this instructional method in the reading classrooms. In addition, the types of reading passages include narrative, descriptive, expository and argumentative.

Table 3 details the contents of the IBRM.

Table 3. Contents of the Inquiry-Based Reciprocal Teaching Module

Unit	Content	Teaching & Learning Activities
Unit 1	Predicting	These units discuss in detail each of the four strategies: predicting, clarifying, questioning and summarising. The introduction of these strategies in isolation functions as a preparation for the ESL learners to know how the strategy fits into the larger framework.
Unit 2	Clarifying	
Unit 3	Questioning	
Unit 4	Summarising	
Unit 5	RT in Narrative Texts	These units offer suggested lesson plans as well as interesting and challenging activities that outline the modelling and scaffolding in using RT strategies in four different genres. They are aimed at assisting ESL learners in internalising reciprocal teaching strategies for eventual independent use.
Unit 6	RT in Narrative Texts	
Unit 7	RT in Descriptive Texts	
Unit 8	RT in Argumentative Texts	

Implementation and Data Analysis

The module was implemented for ten weeks, with two hours per week spent on both experimental and control groups respectively. Eight weeks were allocated to focus on the module for the experimental group and the traditional method for the control group, one week for the pre-test at the beginning of the intervention and another week for the post-test that was conducted at the end of the intervention.

A pre-test consisting of the actual reading comprehension passage taken from the 2015 SPM English Paper Two (Reading Paper) was adopted and administered to the participants a week before the intervention. During treatment, participants in the experimental group were explicitly taught using the IBRM. The participants in the control group received the same reading materials as the experimental group and were taught using the traditional method. At the end of the tenth week, a reading comprehension passage from 2017 SPM English Paper Two was administered to both groups. The mean scores of the post-test were compared to the mean scores of the pre-test to check whether there was a significant difference in the scores after the intervention. Independent sample t-tests and paired sample t-tests were performed to determine the changes before and after the intervention.

Results

Independent sample t-tests were performed to test HO_1 and HO_2 whereas paired sample t-tests were performed to test HO_3 and HO_4. The results of the hypothesis testing are presented as follows:

Hypothesis One (HO₁)

HO_1: There is no significant difference in the pre-test reading comprehension mean score between the experimental and the control group.

The mean value between the two groups shows that the experimental group (M = 31.90, SD = 3.68) has higher mean compared to the control group (M = 30.26, SD = 4.83). However, the difference is not statistically significant to each other. Table 4 shows the mean score and standard variation value of the pre-test score for both the experimental and the control group.

Table 4: Pre-Test for the Experimental and the Control Group

	N	Mean	S.D	S.E
Experimental	42	31.90	3.68	.57
Control	42	30.26	4.83	.75

The independent sample T-test analysis for pre-test found that there was no significant difference in the pre-test mean score between the experimental and control group with experimental group (M = 31.90, SD = 3.68) and control group (M = 30.26, SD = 4.83); and t (82) = 1.76, p > .05 (Table 4). The results revealed that both experimental and control groups have equal performance in reading comprehension at the beginning of the experiment. Therefore, the hypothesis that there is no significant difference in the pre-test reading comprehension mean score between the experimental and control groups fails to be rejected.

Hypothesis Two (HO₂)

HO_2: There is no significant difference in the post-test reading comprehension mean score between the experimental and the control group.

Table 5 shows the mean score and standard variation value of the post-test score for both the experimental and the control group. The mean value between the two groups shows that the experimental group has higher mean compared to the control group. The difference in mean for both groups was quite statistically significant to each other.

Table 5: Post-Test for the Experimental and the Control Group

	N	Mean	S.D	S.E
Experimental	42	41.38	3.58	.55
Control	42	32.67	4.58	.71

The experimental group has higher mean value (M = 41.38, SD = 3.58) as compared to the control group (M = 32.67, SD = 4.58) with t (82) = 9.71, p < .05 (Table 5). The independent sample t-test results revealed that the experimental group had performed better after intervention as compared to the control group. Hence, the hypothesis that there is no significant difference in the post-test reading comprehension mean score between the experimental and the control group is rejected.

Hypothesis Three (HO₃)

HO_3: There is no significant difference between the pre-test and post-test reading comprehension mean scores in the experimental group.

Table 6 shows the values of means and standard deviations obtained from the analysis for experimental group. The analysis indicated that mean value for the post- test score is higher as compared to the pre-test score.

Table 6: Pre-test and Post-test for the Experimental Group

		N	Mean	S.D	S.E
Experimental	PretestEG	42	31.90	3.68	.57
	PosttestEG	42	41.38	3.58	.55

Table 6 shows the result of the paired sample t-test of the pre-test and post-test scores for the experimental group. There is a significant difference between pre-test score (M = 31.90, SD = 3.68) and post-test score (M = 41.38, SD = 3.58) with t (41) = -18.37, p < .05. This indicated an increase in the post-test score for the experimental group after being treated with the Inquiry-Based Reciprocal Teaching Module. Thus, the hypothesis that there is no significant difference in the reading comprehension mean scores of pre-test and post-test for the experimental group is rejected.

Hypothesis Four (HO$_4$)
HO$_4$: There is no significant difference between the pre-test and post-test reading comprehension mean scores in the control group.

The analysis indicated that mean value for the post-test score is higher compared to the pre-test score in the control group. Table 7 shows the values of means and standard deviations obtained from the analysis for control group.

Table 7: Pre-test and Post-test for the Control Group

		N	Mean	S.D	S.E
Control	PretestCG	42	30.26	4.83	.75
	PosttestCG	42	32.67	4.58	.71

There is a significant difference between pretest score (M = 30.26, SD = 4.83) and post-test score (M = 32.67, SD = 4.58) with t (41) = -5.80, p < .05. This indicated that there is a slight enhancement in the post-test score as compared to pre-test score for the control group after subjected to the conventional method of reading comprehension. Thus, the hypothesis that there is no significant difference in the reading comprehension mean scores of pre-test and post-test for the control group is rejected.

However, the mean score of post-test for the experimental group (M = 41.38) is higher as compared to the control group (M = 32.67).

Discussion
Conclusively, the results revealed that the IBRM has positively and significantly enhanced ESL learners' reading comprehension performance. During the pre-test, although the mean score for the experimental group was slightly higher than the mean score of the control group, they did not differ significantly. This indicated that the performance of both groups was equal at the initial stage. This is important as any differences in the post-test can be attributed to the treatment received by the experimental group.

The mean score for the post-test revealed that the mean score of the experimental group was higher and differed significantly as compared to the mean score of the control group. The post-intervention evaluation exhibited improvement in the learners' reading comprehension scores. These results resonated with the studies conducted by Cuartero (2018), Navaie (2018), Siti Habibah et al. (2018), Nirma Herlina (2017), and Oktavia and Fitrina (2017). These studies all indicated that exposure to reciprocal teaching interventions resulted in an awareness of the use of reading strategies, thus improving learners' reading comprehension.

The success of this reading intervention was attributed to the employment of reciprocal teaching strategies paired with the BSCS 5E model in the IBRM. This module outlined the implementation of reciprocal teaching strategies in inquiry-based reading activities. Reciprocal teaching strategies alleviated reading comprehension difficulties by raising awareness of the use of reading comprehension strategies by acknowledging the importance of purposes for reading and prior knowledge regarding the topic concerned. This exemplified the benefits of incorporating these reading strategies into the core foundation of this study. Continuous transactions between the texts and the reader as well as among the learners were observed during the intervention. Through learners' reading enactment and constant collaboration among their peers, mastery of certain reading skills or understanding of the topics in the module were imparted as meaningful transactions.

IBRM module also allows for the appropriate provision of guided and interactional learning practices and experiences within a small group setting that results in added value to learning. These experiences enable the learners to share responsibility for determining the meaning of a text, making the task more manageable without simplifying the task. These experiences also allow the scaffolding and construction of meaning in a social setting through modelling, think-aloud and discussion, thus facilitating the internalisation of self-monitoring and self-regulatory skills essential in the process of reading comprehension.

In addition, the use of IBRM in a real classroom setting ensures learners' engagement by providing a platform for explorative learning as well as authentic language learning and teaching activities that prioritize learners' inquiries. The unbiased and dynamic exploration of real-world situations in using IBRM in ESL classrooms reduces learners' anxiety and creates a positive learning environment, thus changing learners' roles from passive listeners to active participants. The nature of IBL and reciprocal teaching strategies in IBRM also promote active engagement in social interaction. A continuous positive and effective engagement will result in the emergence of more reflective and self-directed learners.

Apart from the nature of the IBL setting, the adoption of scaffolding strategies is of equal importance in IBRM. Without the inclusion of expert scaffolding, meaningful and comprehensible inputs are insufficient to fortify learners' reading comprehension. The assistance provided in expert scaffolding often successfully decreases the gap between students' existing knowledge and the targeted knowledge (Smit et al., 2017; Haghparast & Mall-Amiri, 2015). Furthermore, scaffolding strategies also offer problem-solving opportunities, and the impermanence of scaffolding instruction allows learners to gradually take on learning responsibilities. Salem (2017) advocates the functionality of scaffolding in facilitating learners' self-regulation and securing positive learning conditions, thus are pivotal for learners in achieving reading independence. The emergence of these elements during the intervention explains the positive reading comprehension performance in post-intervention.

If the selection of an appropriate foundation for reading intervention is disconcerting, designing a comprehensive reading lesson with functional reading texts that will benefit the whole class is an even more intimidating quest. It is important to note that as effective as IBL and reciprocal teaching strategies are, the key determinant of a good reading module is its reading texts. IBRM was developed after a series of the specific analysis of the curriculum and texts. The module includes different genres of reading texts; narrative, expository, descriptive and argumentative and meticulous steps were taken in ensuring systematic and categorised inputs to ensure that the vast content of texts used in the module adhere to the latest reading curriculum specification and learners' needs. Moreover, the use of localised reading texts that is parallel with the CEFR levels stipulated in the curriculum facilitated the learning process. Curriculum developers may take this into consideration when designing textbooks as reading texts indeed is the heart to reading comprehension.

In determining the accurate selection of reading texts, a great deal of time and commitment were required to investigate each proposed text before selection could be made. The task was complex as the relationships among the activities selected need to be further investigated because reading comprehension is a complex and dynamic process. As daunting and as complex as this selection task was, it was a gainful effort as this ensures the production of a meaningful guide and practical, yet comprehensive and effective strategies to aid learners to achieve their reading comprehension goals.

Based on the discussion above, it may be recommended for future studies to do the following: Firstly, include a larger population for generalization. The forthcoming research can be extended to elementary or tertiary levels. Secondly, considering different research designs or adding qualitative approaches might accommodate different research needs and perspectives. Another recommendation is to digitalise the reading module. Developing a self-regulated IBRM might produce more learner autonomy through pace empowerment in learning. Lastly, adding qualitative approaches to the study

Conclusion

To recapitulate, this study evaluated the effectiveness of IBRM in enhancing Malaysian ESL learners' reading comprehension performance. Considering the positive outcome resulted from the reading intervention, IBRM caters for individual learning needs, thus, the module can be utilised as augmentation of conventional reading comprehension teaching, increasing the successful attainment of reading comprehension strategies. IBRM, therefore fulfils the characteristics of a good module by providing a guideline for the educators to empower the process of learning and let the learners be more independent in determining the direction of their learning, thus becoming more independent learners.

Acknowledgements

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