

The Effectiveness of a Supplementary Reading Programme for Children in Malaysia's Remote Schools

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Abstract: Providing access to quality education should be viewed as a social responsibility. And the backbone of a good education system lies in its ability to promote literacy among the community, particularly the children. This paper reports the findings of a study conducted to evaluate the effectiveness of a supplementary reading programme conducted in remote schools in the states of Sabah and Sarawak, Malaysia. Using the qualitative-naturalistic framework to programme evaluation proposed by Patton (2001) and Guba and Lincoln (1981, 1992) and using a mixed-method approach comprising quantitative and qualitative data collection and analytic techniques, a questionnaire survey was conducted on 2,734 students and 142 teachers from 40 primary schools in Sabah and Sarawak and triangulated with qualitative data from the interviews of students and teachers as well as observations of their reactions to the programme and reading camps. The results suggest that the supplementary reading programme has improved the students' attitudes towards reading, motivated them to read extensively and improved their reading habits.

Key words: Literacy • Reading habits • Reading programme • Programme evaluation

INTRODUCTION

Education is a fundamental human right. And every child is entitled to it. Yet, not every child has access to quality education. This is especially so for the children of remote communities, where socio-economic background, family educational background and geographical location have a role to play in the kind of education that they receive. Such is also the case with regard to the remote schools in Sabah and Sarawak, two states in East Malaysia, which house the bulk of Malaysia's rainforests. Being the largest two states in Malaysia and also sparsely populated, many schools are located very far away from towns or cities and are accessible only by four-wheel drive, boat, or on foot; particularly in Sarawak, which is traversed by a network of rivers. Hence, going to school is not a simple matter, as children have to spend a great deal of time to get to school. Indeed, many children do not go to school because of the difficulty in getting there.

The first step towards providing quality education is to ensure that children have strong literacy skills as they are essential for success in school. Literacy is the most important foundation upon which further learning depends and is the most reliable predictor of longer term

educational outcomes and personal and economic well being [1, 2]. A poor achievement in literacy is linked to higher school dropout rates [3]; lower rates of entry to higher education [4]; and higher rates of unemployment [1].

Numerous studies have indicated that early experiences with books and reading contribute to later success or failure in learning to read, which consequently affects academic achievement [5-8]. Children who enter school with little experience with books and reading do not read as much as those with much more experience [9, 10]. Indeed, there is strong evidence to indicate that a slow start in literacy leads to several less-than-positive consequences, which become magnified over time and which last even in adulthood if left unchecked [11, 12].

A Supplementary Reading Programme (SRP) was initiated in 2004 by a non-profit organization, the Osaka Gas Foundation of International Cultural Exchange (OGFICE) to help improve the situation for children in 40 remote primary schools in Sarawak for the following reasons;

- To provide access to quality education and to ensure that children have strong literacy skills,

- To address the issue of lower educational attainment amongst Sabah and Sarawak's indigenous population of above 6 years old as highlighted in the Malaysian Census 2000
- To give educational access to poor children given the fact that poverty was one of the factors that contributed to the poor school enrolment and performance of Sabah's and Sarawak's indigenous children [13].

This programme was later expanded and funded by the United Nations Children's Fund (UNICEF) to another 25 remote primary schools in Sabah and 5 remote primary schools in Sarawak and by the Ministry of Education Malaysia, to another 15 remote schools in Sabah and 5 remote schools in Sarawak.

Since the inception of the programme in 2004, however, there had been no comprehensive studies carried out to assess the effectiveness of the programme in the two states that would guide policy makers in devising suitable strategies and a plan of action to help children in marginalized communities. Hence, it was necessary to carry out a holistic evaluation to assess how far the programme had been able to inculcate a good reading habit among students and contribute to their reading literacy in English so that suggestions could be made for the improvement of the programme. The objective of this study is to evaluate the effectiveness of this programme.

Methodology: To evaluate the SRP, the research utilised a mixed-method approach comprising quantitative and qualitative data collection and analytic techniques. Due to the nature of the research questions and the scope of the research and to allow for triangulation, this research adopted the qualitative-naturalistic framework for programme evaluation proposed by [14] and [15, 16], who assert that since social phenomena are extremely complex we need diverse tools and different kinds of methods to understand them more completely. Hence, the following methods were used for data collection:

- Questionnaire survey of the perceptions of teachers and students towards the programme
- Focus group interviews of students
- Face-to-face, in-depth interviews of students and teachers
- Observations of students, teachers and the school setting

Site visits were conducted to evaluate 17 schools in Sabah and 23 schools in Sarawak. Observations were made of the school setting and the library and interviews of the English teachers from these schools as well as selected students were conducted to find out their feelings about the SRP. A questionnaire survey was then administered to 2,734 students from grades 3, 4, 5 and 6 from all the 40 schools.

The evaluation of the SRP also included an in-depth study of two schools—one in Sabah and one in Sarawak, where students and teachers were interviewed and teachers observed as to how they carried out the reading programme. Finally, visits to the reading camps in the towns of Miri, Sandakan and Kuching were made to observe the activities carried out and students' reactions to the activities, as well as to interview the teachers and students about their feelings about the programme.

Participants: A total of 2,734 students from 17 primary schools in Sabah and 23 primary schools in Sarawak participated in the study. Of these students, 52.8% were girls and 47.2% were boys, studying in grades 3 (23.5%), 4 (24.0%), 5 (26.0%) and 6 (26.5%) in their respective schools. Only a minority speak English (0.5%). The majority of these students (79%) have parents earning an income of below RM1,000. Hence, the majority of the students are considered to be below poverty level. With regard to the teachers, 142 participated, 51.4% of whom were male while 48.6% were female. The majority of the teachers (54.2%) had more than 10 years of teaching experience.

The Instruments: Three survey instruments were used in this study; one to assess the perceptions of teachers and another to assess the perceptions of students towards the SRP. The third instrument was an observation checklist developed to enable researchers to record how the SRP was implemented in the various schools. The inclusion of items in the questionnaire was based on an extensive review of the literature on reading, materials development and educational programme evaluation. Items were also adapted from well-known surveys on reading such as Reading Connects.

The Use of Confidence Intervals: Due to physical and time constraints, it was not possible to study all the 90 remote schools that participated in the programme. Hence, the researchers selected, through random cluster sampling, 23 schools from Sarawak and 17 schools from Sabah to take part in the study. The reason why more

schools from Sarawak were chosen was because there were more participating schools from this state. All the students in these 40 schools were requested to participate.

In order to generalize the findings of the survey to the entire population of students from the 90 schools, confidence intervals were constructed on the responses gathered from the sample. The statistical inference technique is inferred from the sample, with a specified level of *confidence* and accuracy and hence, within a certain margin of error, the proportion of those who were not in the survey, that is, those in the *population*, who feel the same way as the respondents on the issues covered in the questionnaire. Hence, confidence intervals provide estimates of the population value. The research team holds to the principle that it is good research practice to specify the *sampling error*, that is, the *probability* of error, inherent in making generalizations from sample to population.

For the purpose of this study, the accuracy of the estimate was set to be at $\pm 2\%$ and confidence at 95% (which is the *probability* that the calculated intervals will contain the population value). The sample size needed to justify the above values of confidence and accuracy was obtained by applying the formula,

$$n = z_c^2 PQ/d^2 \text{ (See Brewer, 1991),}$$

where:

n = Sample size

z_c^2 = Standard normal deviate value associated with the confidence level

P = Population proportion

Q = 1-P

d = Accuracy of the estimate

Given that the largest possible n for a fixed d (thus getting a conservatively large sample size) would be obtained when $P=Q=1/2$ and with confidence set at .95 and accuracy to be at $\pm 2\%$ of the true proportion, the sample size needed to calculate a confidence interval on the population who agree to the statements is $(1.96)^2 (1/2) (1/2) / (.02)^2 = 2,401$.

The Use of Qualitative Research Methods: In addition to the use of the quantitative methodology, the research utilised qualitative methods of data collection. This is to obtain rich data [14, 17, 18], to answer questions related to “how” and “why” and gather data that would not have

been easily obtainable from the use of a survey questionnaire. The use of qualitative methodology is also meant to triangulate the results obtained from the survey [14, 18].

Focus Group Interviews and In-Depth Interviews: Focus group interviews and in-depth interviews were used to study, in-depth, the perceptions of the students towards the SRP programme, their attitudes towards reading in English and Malay and the types of materials they find interesting and engaging; while the face-to-face interviews were utilized to assess teachers’ perceptions of the programme.

Observations: Observations were also made of the school setting as well as the library. Using a checklist, the researchers noted where the books were kept and the condition of the books. Observations were also made of students using the SRP materials in the library as well as selected teachers teaching using the SRP materials in two selected schools. These observations were also recorded on video as well as digital cameras.

Research Procedure: Prior to administration, the questionnaires were validated and pilot tested to determine their capacity to yield reliable and valid data. In addition, to get the best possible response rate and to help the students with any difficulties they may have had with the questions, the questionnaires *were not* mailed, but instead, were personally administered by the research team at the 40 schools. All the students and teachers from the selected schools participated in the study, representing a 100% response rate. With the help of the teachers, the researchers went through each item with the students, giving them time to respond to each item. The students were given the opportunity to ask questions about the items.

RESULTS

Obtaining a sample size of 2,734, which is more than the minimally adequate sample size of 2,401, allows the researchers to generalize, with 95% confidence and an accuracy of $\pm 2\%$, the percentages obtained from the sample to the population of students in the 90 schools. The following section presents the salient themes obtained from the interviews of students and teachers, the results obtained from the questionnaire survey, as well as observations of the students and teachers in the classes and reading camps.

Students’ Perceptions of SRP: Almost all the students interviewed had positive impressions of the SRP. Two of them, S1 and S2 both of whom were in Grade Six, were happy with the books because they said that the stories were easily understood. In addition, the students mentioned that they were attracted to the books because of the illustrations accompanying the texts. Fairy tales, such as Cinderella and Thumbelina, were the students’ favourites. Besides fiction and fairy tales, S1 and S2 were also comfortable reading simple non-fiction books such as “*What I see*” and books about animals. In fact, S2 could recall the fact that the cheetah was the fastest animal on land.

Another student interviewed was S3, the daughter of a fisherman, whose mother generates additional income for the family by selling fish at the market. When asked about the books she reads, she said that they are about “... *haiwan, tumbuhan...Suka jugak dapat tahu lebih banyak lagi tentang tumbuhan, haiwan...*” (“animals, plants.....I do get to know more about plants and animals”). She said that she likes the SRP reading materials because of the pictures and illustrations. The main difficulty that she faced in reading the materials is that she could not understand the meaning of some words and would resort to the dictionary or her teacher and friends for support.

S3 also enjoys reading folktales and a book entitled ‘The Universe’, which gives detailed information about the planets. She feels that some of the materials are easy and some are difficult to read. She prefers reading difficult books because of the opportunity to learn new words and sentences. S3 suggested that the books should have more pictures.

We also interviewed S4, who really liked the reading materials. Among her favourite titles were ‘Survival of the Species’ and ‘The Universe’. To her, the books were easy to understand because they were not long and she could

quickly complete reading them. She also said that the pupils learnt more about animals and the universe by reading the SRP books. She said that she had read a lot of the books and believed that the books were her means to acquire new words. She did not waste her time and preferred reading books in her free time. She said that she liked the SRP books because they helped her learn new words, which could improve her vocabulary.

Another group of four students also had positive views of the programme. They viewed the SRP as “*Bahan Bacaan Tambahan*” or Supplementary Reading Materials and felt that the books helped them to learn new words and to understand English better. One of the students in the group had read about 20 SRP books on adventure, fiction, etc. The others had read about culture, engineering and animals. They said that they enjoyed reading the materials, that the materials helped them in their studies and there were lessons they could learn from the books. The students reported that since the inception of the programme in their schools, they started reading more books.

The results of the in-depth and focus group interviews were also supported by the results of the survey. Of the 2,734 students who answered the questionnaire, 62.5% stated that ever since the SRP programme was introduced, they had read a lot of books while 66.9% said that the SRP made them love reading (Table 1). In fact, 63.6% were of the view that the SRP helped them to make reading a habit, motivated them to read books everyday (62.6%), to read a lot (66.4%) and to borrow more books (59.3%).

With regard to reading in English, 67.2% of the students (Table 2) said that the SRP motivated them to be better in English, helped them to know more English words (67.6%) and helped them understand better what they read in English (64.8%).

Table 1: Students’ Perceptions of the Effect of the SRP on Their Reading Habits

Items	Percent (%)				
	Don't Know	Strongly Disagree	Disagree	Agree	Strongly Agree
1 Ever since the SRP was conducted in this school, I have read a lot of books.	13.0	7.1	17.4	37.6	24.9
2 The SRP has made me love to read.	12.2	6.7	14.2	39.2	27.7
3 The SRP has helped me to make reading a habit.	12.5	7.7	16.2	38.4	25.2
4 The SRP has motivated me to read a lot.	12.1	6.3	15.2	37.7	28.7
5 The SRP has motivated me to read books every day.	12.8	6.1	18.5	36.8	25.8
6 The SRP has motivated me to borrow more books.	13.4	7.8	19.5	36.0	23.3

Table 2: Students' Perceptions of the SRP on Learning English

Items	Percent (%)				
	Don't Know/Not Relevant	Strongly Disagree	Disagree	Agree	Strongly Agree
7 The SRP has helped me to understand better what I read in English.	12.1	7.5	15.6	38.5	26.3
8 The SRP has helped me to know more English words.	12.7	6.2	13.5	37.1	30.5
9 The SRP has motivated me to be better in English.	12.3	6.1	14.4	38.3	28.9

The students' positive views of the SRP were corroborated by the teachers interviewed. As narrated in an interview by one teacher; "...program ini memang membantu, banyak memupuk minat membaca murid dan menambah pengetahuan..." ("...the programme has helped a great deal to inculcate the pupil's interest in reading and does increase their knowledge"). The teacher expressed the fact that many of the pupils in his school had limited exposure to English in their daily lives and that the motivation to learn English is relatively low. Most of the pupils read slowly because they still focused on decoding each and every word. The teacher added that after the introduction of the SRP in his school, many of his pupils were able to read the materials quite well. The teacher also said that before the programme was introduced, many pupils did not know the meaning of terms such as 'author', 'title' and 'sentence'.

To summarise, the results obtained from both the questionnaire survey and the in-depth and focus group interviews show that a majority of the students had positive views of the programme. This is encouraging, given the fact that 28.9% of the students perceived themselves as being average readers and only 10.5% of them preferred to read in English. The majority (83.2%) of the students, preferred to read in Malay.

Teachers' Views of SRP: The majority of the teachers interviewed also had positive views of the SRP. This is reflected in the sentiments of T1, who is the head of the Science Committee, an English teacher and the 'Guru Data', or "Data Teacher".

According to T1, before the SRP was implemented, the teachers faced a lot of challenges in trying to motivate the pupils to read. Once, T1 asked the pupils what they like to do during their free time. Many said they like "playing". He observed that the children lacked interest in reading. However, ever since the programme started, the students became more motivated to read. Many of the pupils were now able to read the SRP reading materials and communicate to the teacher and their friends about

what they had read. Before the programme was introduced, many pupils did not know the meanings of some of the terms including 'author', 'title' and 'sentence'. After the introduction of the programme, many of them know how to summarise the stories they read. T1 strongly felt that the SRP was successful in inculcating the reading habit among the students and in increasing their general knowledge. As he put it, "*Program ini memang membantu, banyak memupuk minat membaca murid dan menambah pengetahuan mereka*", ("This programme has really helped in fostering an interest in reading among the students and in enhancing their knowledge").

T1's school has implemented the SRP since 2006 as part of an intensive, weekly reading programme held during the English lesson, particularly for the Grade 6 pupils. T1 said that this caused the students' performance in English in the National Lower Primary School Examinations (UPSR) to improve.

T1's views were shared by T2, who said that the responsibility of persuading the students to read was her most difficult task. She identified attitude and interest towards reading English language materials as being the elements that must be tackled immediately. When she started teaching in her school, she felt as if she was "talking alone" in the classroom. Her students neither responded nor spoke to her in English. At the beginning, when her students seemed indifferent towards reading, she had to force them to read. As time passed, with her persistence, as she proudly claimed, 18 of the 26 students in grade 6 could be categorized as good readers. T2 also believed that all of them could comprehend instructions, commands and texts in the English language.

Ever since the SRP was introduced in the school, T2 noticed some positive changes in the learners' attitudes towards reading. More books were being read by the students, especially story books. However, new story books were needed, she said. The students would often ask for her permission to borrow the books to read at home.

Table 3: Teachers' Perceptions of the Effects of the SRP on students

Items	Percent (%)				
	Strongly Disagree	Disagree	Slightly Disagree	Agree	Strongly Agree
10 The SRP has increased the pupils' proficiency in English.	0.0	1.4	12.0	76.7	9.9
11 The pupils' ability in English will increase if they are actively involved in the SRP.	0.0	0.7	9.2	71.1	19.0
12 My pupil's interest in reading has increased as a result of the implementation of the SRP.	0.0	0.7	24.7	67.6	7.0

Table 4: Teachers' Perceptions of the SRP

Items	Percent (%)				
	Strongly Disagree	Disagree	Slightly Disagree	Agree	Strongly Agree
13 My pupils love the SRP books.	2.8	0.7	11.3	59.1	26.1
14 The language that is used in the SRP is easy to understand.	0.7	0.0	22.5	64.8	12.0
15 The SRP books are very interesting.	0.7	0.0	12.7	69.7	16.9

The sentiments of T1 and T2 and the other teachers interviewed were corroborated by the findings of the survey, where 74.6% of the teachers were of the view that their student's interest in reading increased as a result of the programme and that it increased the students' English proficiency (86.6%). It was also found that 90.1% of the teachers felt that students' ability in English would increase if they were active in the SRP (Table 3).

The findings also indicate that 85.2% of the teachers (Table 4) reported that their students loved the SRP books, found the SRP books interesting (86.6%) and the language used was easy to understand (76.8%).

It is also important to point out that T2 used the SRP reading materials that contain simpler sentences, fewer texts and bigger and more colourful pictures, or affectionately called by the teachers as the "Big Books", to introduce the English language to students who were weak in reading. These were the books she categorised as simple or basic. She gave an example of a book entitled, "Ana and Ali", which she used to teach weak students, regardless of whether the students were in Grade One, Two, or Three. T2 believed that by repeating the same words that were found in these simple books, students' interest and confidence could be raised and that they would then have the confidence to read books that were more complex and difficult. T2 specifically said that this method of teaching reading results in the improvement of her students' reading ability, especially among those who were weak.

Observations of the Schools, Classrooms and Reading Camps: While the study produced quantitative data as well as qualitative, interview data on the benefits of the

SRP, observations provided further evidence of the success of the SRP. The observations conducted during visits to all the schools and reading camps revealed that the students' morale in terms of reading, learning the English language and learning in general, was very high as a result of their involvement in the SRP. The students were excited about the reading programme and the books they were reading. They were also happy to attend and participate in the reading camps, where they were involved in activities pertaining to reading and performing on stage using English. From the observations of the students in their classes and in the reading camps, they used the English Language with such ease and confidence that an uninformed visitor to the reading camps could have easily mistaken them as being from the mainstream schools and not from the remote areas or islands. We observed the same positive attitude among the teachers, who were very enthusiastic about the programme and who seemed very committed in helping their students improve their students' reading in English and their attitudes towards English.

The students' reactions towards the SRP could have been due to the presence of the researchers in the classroom. As [14] states, this may create a halo effect where students performed as expected. Although that *could* have been the case, the data, which were obtained from 40 schools and which involved multiple modes of data collection, consistently point to the fact that the students' attitudes towards reading in English, motivation to read in English and reading habits improved as a result of their participation in the programme. This was corroborated by the reports from the teachers and the students' and teachers' reactions to the programme.

DISCUSSION

The data obtained from the questionnaire survey as well as the in-depth and focus group interviews suggest that the SRP materials did stimulate the students' interests in reading, particularly in the English language. About 63.1% of the students reported that they were willing to come early to school to attend programmes related to the SRP.

The findings of this study also provided evidence that the SRP materials not only fulfilled the students' needs and interest in reading, but also changed their general attitude towards reading in a positive manner. Since the introduction of the SRP in their schools, 62.5% of the students claimed that they had read many books, while about 66.9% of them suggested that the SRP made them avid readers. About 59.3% of the students said that the SRP motivated them to borrow more books from the school. As far as using the English language is concerned, the same positive effects were also seen, where a majority of the students (67.8%) said that they had expanded their English language vocabulary through the reading of SRP books and that they (64.8%) were more able to understand the materials that they read in English. One student stated that, "*Saya rasa saya telah mempelajari lebih banyak perkataan-perkataan Bahasa Inggris, dan dapat memahami apa yang saya baca*" ("I feel that I have learnt a lot of English words and that I am able to understand what I have read").

CONCLUSION

The task of improving the living conditions of the indigenous people or the people in the rural and remote areas is the responsibility of the entire society. Measures must be taken to bridge the gap between the communities in the remote areas and that of the mainstream. Providing quality education should be viewed as one of the most important means to improve the lives of people in remote communities. In particular, immediate attention should be given to the children and youth. It should be stressed that the backbone of a good education system lies in its ability to promote literacy among the community, particularly the children. The results of the research suggest that the SRP has been successful in improving the students' attitudes towards reading, inculcating good reading habit amongst them, motivating them to learn English, contributing positively to their reading literacy in English and raising their self-esteem. The SRP materials have also provided

opportunities for the students to have access to new information. While the survey has produced quantitative data on the benefits of the SRP, the anecdotes and observations provided further evidence of the success of the SRP that goes beyond mere numbers. The observations conducted during the visits to the schools and the reading camps revealed that the students' morale when it comes to reading, learning the English language and learning in general, was very high. This augurs well for the future of their communities because literate children beget literate communities.

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