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FINAL REPORT

Impact Study on Reader Development Program: A Case of ReadingSeeds Program by PUSTAKA Negeri Sarawak

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Executive Summary

Impact Study on Reader Development Program: A Case of Reading Seeds Program by

PUSTAKA Negeri Sarawak

The global literacy rate, estimated at 86.3% by the UNESCO Institute for Statistics (UIS), can be attributed to the proactive efforts of libraries and academic institutions worldwide in devising effective methods to boost literacy. PUSTAKA Negeri Sarawak exemplifies this trend through its initiation of several Reading Development Programmes, including PANdei, PUSTAKA in a Box, Bookaroo, Makers Meet, and Reading Seeds. One of these programs, the Reading Seeds Programme (RSP), stands out for its focus on enhancing literacy—both reading and writing—for parents and babies from the prenatal stage up to the child's third year. Developed in-house as an award-winning initiative, the RSP aims to raise literacy levels, particularly in the Sarawak region. Launched in 2018, the program has successfully engaged around 12,000 users with its comprehensive Version 3.0 materials and modules. The Reading Seeds Programme (RSP) has different parts that can help children grow better. These parts include things like moving well, talking and listening, social skills, and getting better at reading. The RSP also seems to help children spend less time in front of screens. The RSP works better when parents are involved. The RSP has clear objectives: fostering a reading culture, encouraging parents to read to their newborns, building children's vocabulary, and nurturing their confidence. The program's core content is designed to facilitate a child's holistic development, encompassing areas such as gross and fine motor skills, language, hearing, social and cognitive abilities, as well as literacy development. However, the specific outcomes directly linked to the RSP remain uncertain. With this in mind, this study is specifically designed to ascertain the impact of reading seed programs (RSP) of PUSTAKA Negeri Sarawak specifically in Kuching, Samarahan and Lundu. A survey questionnaire was developed to gather data on demographic information, reading behaviors, parental participation, vocabulary skills, confidence growth, and feedback regarding the RSP. A preliminary study conducted indicates that the questionnaire is both valid and reliable for collecting data. In essence, the findings reveal that the RSP has the highest significant impact on fostering reading habits, followed by parental engagement, the child's vocabulary proficiency, and the development of confidence. These findings also take into account demographic factors such as ethnicity, the highest educational qualifications, the child's age, the child's gender, the date/year of receiving RSP kits, and the number of siblings who have utilized the RSP kits.

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Chapter 1.0: Introduction

1.1 INTRODUCTION

The adult literacy rate refers to the percentage of individuals aged fifteen and older who possess the ability to read, write, and comprehend simple statements related to their daily lives. According to the given definition, Malaysia reported an illiteracy rate of 5.36 percent in 2015, equivalent to 1.6 million people out of a total population of 30.27 million (as per data from UNESCO's Institute for Statistics). However, Malaysia's literacy rate stood at 94.85% in 2020 (source: Macrotrends: Malaysia Literacy Rate 1980-2020), surpassing the global literacy rate of 86.30% recorded in 2018 (source: ourworldindata.org/literacy).

Although Malaysia's adult literacy rate exceeds the global average for 2018, the country remains committed to enhancing reading habits across all segments of its population. To illustrate, the Ministry of Education Malaysia (MOE) has been implementing *Pemulihan Khas* programs since the 1960s to address foundational skill gaps among primary school students. Following the introduction of the KBSR (*Kurikulum Baru Sekolah Rendah*) curriculum in 1983, primary education in Malaysia placed greater emphasis on the fundamental "3M" skills – *Membaca* (Reading), *Menulis* (Writing), and *Mengira* (Counting). This emphasis starts as early as age 4, excluding children categorized under special needs (*MBK, Murid Berkeperluan Khas*).

The Malaysian National Library (PNM) is also actively promoting reading habits through numerous initiatives, campaigns, and activities. Reading development programs (RDPs) are categorized for different groups, including communities, families, babies, preschoolers, primary and secondary school students, teenagers, government sectors, and individuals with special needs (OKU), as well as the publishing industry. The effectiveness and influence of these reading programs, led by both the National Library (PNM) and state libraries, serve as pivotal indicators in achieving the desired literacy levels among Malaysians.

Given this context, the current study is specifically designed to assess the impact of PUSTAKA Negeri Sarawak's reading development programs (RDPs), focusing on the regions of Kuching, Samarahan, and Lundu. This case study aims to establish a foundational research framework for use by public libraries, stakeholders, and relevant agencies. Additionally, the

empirical insights from this study can serve as a guiding resource for advancing the national literacy agenda.

1.2 BACKGROUND OF THE STUDY

In achieving the national satisfactory level of literacy, we need to innovate effective reading development programmes that can help children learn to read, identify the elements that hinder children's learning to read, and identify the roles and responsibilities of supporting systems (such as family, library, and society) to achieve our expected levels of literacy. According to Braunger and Lewin (1997), cultural differences, poverty, language acquisition, special needs, and implications for struggling readers are the influencing factors in literacy learning. Braunger and Lewin (1997) also suggest the required literacy development elements for helping children learn how to read effectively, which include:

1. Time for reading and learning.
2. Texts of all kinds and rich resources for learning to read.
3. Knowledgeable and supportive teachers.
4. Appropriate instruction in skills and strategies.
5. Demonstration of how readers, writers, and text work.
6. Other readers, both novice and expert.
7. Their own reading processes.

When considering urban-rural disparities, it becomes evident that the literacy rate in rural areas of Sarawak significantly lags behind that of urban regions, as highlighted by the Ministry of Education Malaysia in 2015. This imbalance is coupled with an average annual birth rate of 35,626 infants in Sarawak, a statistic provided by the Sarawak Department of Health. Therefore, the critical question to ponder is whether the present reading development programmes that have been conducted by public libraries have enhanced or hindered reading interest among children. Hence, to gauge the impact of the reading development programmes by PUSTAKA Negeri Sarawak, this study proposes a case study to evaluate the impact of PUSTAKA Negeri Sarawak's reading development programmes.

PUSTAKA Negeri Sarawak has introduced three phases of the Family Literacy Programme over time: Phase 1 (Born to Read: 2001–2011), Phase 2 (Every Child Ready to

Read: 2012–2015), and Phase 3 (Reading Seeds: 2015–present). The Reading Seeds Programme (RSP) aims to cultivate literacy (reading and writing) among parents and babies from pregnancy until the child turns three. According to data maintained by PUSTAKA Negeri Sarawak's RSP team, they produced 13,000 RSP kits and distributed around 12,000 of them. However, only 1,027 participants engaged in RSP activities (training, physical sessions, workshops, open learning), as indicated in Table 2.0. Among these participants, 590 were from Kuching, Samarahan, and Lundu.

Table 1: RSP participants

<i>Year</i>	<i>Location</i>	<i>Enrolled RSP</i>	<i>Total</i>	<i>RSP Kit Recipients</i>	<i>Total</i>
2017	Kuching	21		21	
2018	Kuching	26		26	
2019	Kuching	146		146	
2020&2021	Kuching	601*	794	214**	407
2018	Samarahan	0		0	
2019	Samarahan	67		67	
2020&2021	Samarahan	70*	137	20**	87
2018	Lundu	38		38	
2019	Lundu	29		29	
2020&2021	Lundu	29	96	29	96
		<i>Total</i>	<i>1027</i>		<i>590</i>

*Include those who registered for open learning

**Received RSP kit

RSP is an early literacy programme designed for children under 3 years old and their parents. It is believed that the more children read, the more things they will know and the more confident they will become. Reading passion and other cognitive developments could be nurtured from the time that the child is in the mother's womb, so that reading becomes part of the child's process of growing up and the reading habits will continue to prosper until adulthood.

RSP is a continuation or rebranding of the *Born to Read Programme*, which has been organised by PUSTAKA Negeri Sarawak since 2004. Born to Read is an American-born reading

development programme founded to provide the spark that will ignite the love of books, libraries, and learning since early childhood. The Reading Seeds Programme (RSP) kicked off in 2016 (Version 1.0) in Sarawak, and now it has expanded to several states in Malaysia under the umbrella of *Perpustakaan Negara Malaysia* (PNM). The Sarawak State Library has also gained partnerships with the State and federal governments, namely the Ministry of Welfare, Women, and Family Development, the Ministry of Local Government, the Sarawak Ministry of Health, the Ministry of Women, Family, and Community Development, the Ministry of Tourism and Culture of Malaysia, and the National Library of Malaysia. Tailored to Malaysian contents, the RSP promotes early literacy where parents play imperative supporting roles and provide efforts to develop a reading culture within their family nest. The RSP also aims to create sustainable community-based early literacy programmes that offer opportunities for all children in Sarawak, particularly those living in lower socio-economic communities in the rural areas.

RSP is an ongoing early literacy programme that has evolved based on public opinion and feedback. Version 1.0 of the RSP was developed in-house as an awareness reading programme in 2016. With input from the medical committee, elements of child growth were added to Version 2.0 of the RSP (2017). In 2018, version 3.0 of RSP was further enhanced by ECE experts. This more comprehensive version included elements of early childhood education in the early literacy kit. The main objectives of RSP (as extracted from the official website of PUSTAKA Negeri Sarawak) are stated below:

- Promote reading culture: help children to read from a young age and eventually empower them to be independent readers for life.
- Getting parents to read to their newborns—frequent activities between parents and their infants can also increase intimacy between them. Hence, reading will become an enjoyable and beneficial activity for both.
- Strengthens a child’s vocabulary and develops their confidence.

In particular, the contents of the RSP encompass five specific areas, including:

- Physical growth and Nutritional Status.
- Developmental Growth: gross motor skills, fine motor skills, language & hearing skills, social & cognitive skills.
- Literacy Development.

- Immunisation.
- Screentime.

To participate in the RSP, a baby born at Sarawak General Hospital is eligible to receive a free reading kit (Reading Seeds Baby Pack), which includes one bag, two baby books, one parent's reading manual, a library registration card, and information on the nearest hospital. Parents, carers, babies, clinical assistants, and nurses in mother and child clinics are engaged (through a community-based reading workshop and evaluation) to help develop the skills needed for independent reading while encouraging the development of children's vocabulary, speech growth, and cultural awareness while completing the reading activities. Setting up special reading corners at maternity wards, children's wards, and family and children's clinics are also part of the RSP initiatives. From 2016 to 2020, the target of the RSP was to reach over 180,000 children and parents and distribute 370,000 books to families with newborns state-wide. The obvious role of the Reading Seeds programme is seen as a crucial contribution to the development of significant social value for the parents, children, and state of Sarawak, thus worthy of study.

1.3 PROBLEM STATEMENT

A study on library users' reading habits and leisure time activities in the state of Sarawak found that the users start to read when they are in primary school between the ages of 7-9, which is considered slightly late (Bronny, 2016). The Ministry of Education (MOE) has also reported that Sarawak has a literacy rate of over 90 percent; however, limited information can be found addressing early literacy issues, especially within the context of rural Sarawak. For instance, Asraf et al. (2013) gauged the effects of a supplementary pleasure reading programme on the students in rural Sabah and Sarawak, where students were provided with fiction books that they could bring home to read. The outcomes showed that the literacy programme was able to create an unprecedented interest in reading as well as foster a positive perception of the English Language among the rural students. In the National Reading Decade (DMK) 2021–2030 programme, it is noted that more rigorous studies need to be conducted to learn more about Malaysian readers, especially in Sarawak, with no exception to the communities in the rural areas, which are also known as the low literacy rate areas.

In another study, Kaur and Jawaid (2018) reported that rural learners' reading habits are similar to those of their urban counterparts. Focusing on rural Sarawak, Kaur and Jawaid (2018) also corroborated Asraf et al.'s (2013) finding on rural learners' high motivation regarding reading, despite the lack of resources and physical constraints posed by their residential area. A study on reading habits among rural readers in Sarawak by Pandian, Mikeng, and Kundrata (2020) found that mothers play an important role when it comes to the literacy development of their children, especially at home. The above-mentioned studies, however, address issues of reading habits for children aged 7-9 years instead of the younger age, and therefore there is little consensus concerning early literacy issues in Sarawak.

Sarawak State Library (PUSTAKA Negeri Sarawak) is highly recognised for actively promoting the reading culture and reading development programmes at the state level. It is acknowledged that PUSTAKA Negeri Sarawak has won numerous awards, and some of the highlights are the High-Performance Team awards on reading and reading encouragement-based programmes that include PUSTAKA in a Box, Bookaroo, Makers Meet, and Reading Seed. Notably, it is reported that RM248,676.00 was spent in 2018 for the PUSTAKA Negeri Sarawak reading campaign (PUSTAKA Negeri Sarawak, 2018). Besides, PUSTAKA Negeri Sarawak's outreach programme has also reportedly spent a similar sum of money engaging society with PUSTAKA Negeri Sarawak's knowledge and information services. Among others, the Reading Seed programme is specifically chosen in this study to evaluate the impact of the readers' development programme in lieu of the amount of money and intellectual capital invested.

Additionally, Sarawak being the largest state in the Federation of Malaysia, with a total population of 2.6 million and a population density of about 21 per km², poses a real challenge for the libraries to provide integral services that are much needed by the users. For example, the Book Bear programme was initiated by PUSTAKA Negeri Sarawak to deliver books to the borrower's address. Book borrowing placement employs smartphone apps and an online public access catalogue (OPAC)' system. However, it is limited to 14 books at a time (within 20km of the library), and the borrowers need to return the book themselves. Apparently, many residential areas in the state are beyond a 20-kilometre radius from Pustaka Negeri Sarawak. In addition, climate and other human factors may restrict the desired impact of this RDP.

Moreover, PUSTAKA Negeri Sarawak has invested in digital initiatives by introducing

another RDP called PUSTAKA Negeri Sarawak in a Box. It is a home for many digital materials and resources, including e-books, articles, and videos. This digital library system could accommodate 20 users simultaneously and can be accessed via local WiFi up to a 20-metre radius from Pustaka Negeri Sarawak. This digital initiative is found to be an effective way of addressing the digital gap, but it only benefits those in urban areas and within or near PUSTAKA Negeri Sarawak's vicinity.

A recent study on information seeking behaviour (Norseha et al., 2020) found that internet connectivity is a real challenge, especially among rural dwellers in Sarawak. Therefore, the Reading Seeds Programme (RSP) is chosen because it has a better potential for 'inflow' literacy investment from society to the libraries involved. Other RDPs mentioned earlier are mostly 'outflow' programmes organised by PUSTAKA Negeri Sarawak for community engagement.

Despite the success of the reading seed programme in Sarawak, no empirical data has ever been collected to examine the effectiveness of the programme implementation and delivery from active participants in the programme who serve as principal coordinators, facilitators, and parent and child educators. Therefore, this study seeks to gather empirical data that will serve as meaningful indicators and guidelines for PUSTAKA Negeri Sarawak and other stakeholders. It is hoped that the findings will provide insightful strategies to revisit and improvise the existing RDPs for the purpose of enriching community engagement.

1.4 RESEARCH OBJECTIVES

The main objective of this study is to investigate the impact of the Reader Development Programmes (RDP), specifically the Reading Seeds Programme (RSP), organised by PUSTAKA Negeri Sarawak. Specifically, the investigation aims to accomplish the following objectives:

1. To analyse the impact of RSP in nurturing reading habits, based on demographic factors.
2. To examine the parents' engagement in RSP, based on demographic factors.
3. To identify the child's vocabulary ability, based on demographic factors.
4. To ascertain the child's confidence development, based on demographic factors.
5. To determine the RSP implementations and participation in the program.

Additionally, the findings from this study will be used as a foundation to provide recommendations and offer strategies for action plans. It is hoped that the action plan will become a useful guide for stakeholders in providing services and support related to readers' Development and reading culture among the communities in Sarawak.

1.5 RESEARCH QUESTIONS

The research questions for this study will address the impact of the Reader Development Programme organised by PUSTAKA Negeri Sarawak. Specifically, the clarification of this investigation will be achieved by answering the following questions:

1. What are the impacts of RSP in nurturing reading habits, based on demographic factors?
2. What are the impacts of RSP on parents' engagement, based on demographic factors?
3. What are the impacts of RSP on the child's vocabulary ability, based on demographic factors?
4. What are the impacts of RSP on the child's confidence development, based on demographic factors?
5. How do RSP implementations contribute to RSP participation?

1.6 DEFINITION OF KEY TERMS

The key terms include Impact Study, Reading Seeds Programme, Reading Habits, parent Engagement, child Vocabulary Ability, and child Confidence Development.

1.6.1 Impact Study

The impact of any programme is anticipated through feedback and constructive input from the target audience, including the participation and involvement of the stakeholders (Zuiqi Gong, 2016; Srikanth, 2017). The three objectives of RSP include promoting reading culture, getting parents to read to their newborns, strengthening a child's vocabulary, and developing their confidence. This study is conceptualised to study the impact of RSP by analysing the extent to which PUSTAKA Negeri Sarawak achieved their established objectives for RSP.

To operationalize the word 'impact', it can be explained as the experiences that the young participants have gained during and after RSP-related activities. The positive reading

impacts, such as the development of reading interests and habits as well as reading skills among young readers, will be useful for them to relate to and associate with what they encounter in their daily experiences and activities. The ability to engage in the process of reading during the RSP and to reflect upon the invaluable experiences is consistent with the theory of ‘experiential learning, in which Kolb and Kolb (2005) define it as the process of gaining knowledge through the transformation of experience. New knowledge will result from a combination of grasping and transforming experiences.

1.6.2 Reading Seeds Program

PUSTAKA Negeri Sarawak plays an active role in organising literacy programmes, which include PUSTAKA in a Box, Bookaroo, Makers Meet, and the Reading Seed Programme. The present study conceptualises the Reading Seed Programme, a winning and signature literacy programme of PUSTAKA Negeri Sarawak, which introduces a literacy kit and module based on early childhood education and aims to cultivate literacy since the child is in the mother’s womb until age 3.

1.6.3 Reading Habits

Reading is a continuous development process, and readiness is merely a concept in various stages of reading (Majzub and Kurnia, 2010). Reading habits in the Malaysian context include the users’ participation in library activities at the local, state, or national level (Bronny, 2016). Reading habits depend on many factors, including interest, time, information availability, and efforts by the library to sustain active users and nurture more avid readers (Norseha et al., 2015). Mohini et al. (2012) state that a good reading habit is necessary for healthy intellectual growth, which in turn inspires creative and innovative minds. Reading can increase our knowledge, but at the same time, it also builds maturity and character, sharpens our thinking, and widens our awareness of a variety of issues, such as social, economic, or political (Teh, 2013).

The present study conceptualises the reading habit as a literacy development initiative for promoting reading culture. RSP is believed to have a significant ability to help children learn to read from a young age, eventually empowering them to be independent readers and lifelong learners. To conceptualise reading habits in this research, the young participants’ reading habits can be identified based on the participants’ interest in reading materials, either on paper or on screen, their reading hours, and the number of books or titles that they have read over a certain

period. In most literature, there is a strong association between children’s reading habits, culture, and reading programmes and their developmental outcomes, and the outcomes generally have positive impacts on the children. To make the reading programme a success and to inculcate the children’s reading habits, parents need to play major roles in getting their young ones to read.

1.6.4 Parent’s Engagement

Parents’ engagement is crucial in ensuring the success of the child’s early literacy development, in which they can inculcate the child’s reading habits and culture, as well as those of the rest of the family. When the children have nurtured their love of and interests in reading since they were young, the habits of reading will continue to develop until they are older. According to the child’s experts at the American Academy of Paediatrics, they also recommend that parents begin reading at birth (Clay et al., 2019). Parents’ engagement in this study refers to the initiative taken by the RSP in getting parents to read to their newborns. The use of the RSP kit and module provides frequent activities between parents and their infants, which can also increase intimacy between them. When parents conduct reading activities with their young participants frequently and enjoy performing such activities with their children, this seemingly indicates positive parents’ engagement in the efforts to develop their children’s reading habits and interests. Hence, reading will become an enjoyable and beneficial activity for both.

1.6.5 Child’s Vocabulary Ability

When a child reads, his or her vocabulary ability will be significantly developed. Research suggests that being read to leads to children’s increased vocabulary (Beck, McKeown, & Kucan, 2002), reading comprehension, and cognitive skills (Kalb and Van Ours, 2014). Kalb and Van Ours added that previous studies have found a positive association between parents reading to their children and the child’s subsequent reading skills, language skills, and cognitive development. Children who are reading more frequently at an early age will enter school with larger vocabularies and more advanced comprehension skills (Mol & Bus, 2011). The child’s vocabulary ability in this study refers to the contents developed and designed for the RSP kit and module. The RSP kit and module are designed to cater for the developmental growth of early childhood education, especially related to language and psychomotor skills. If they can recognise the words that they have come across during RSP activities and can make use of the words, either in speech or written form, this indicates that their vocabulary has been enriched.

1.6.6 Child's Confidence Development

When a child can read well, he or she will be more confident and be able to tackle other school-related tasks. As a result, early reading exposure will help a child develop confidence effectively. The child's confidence development for this study refers to the child's developmental growth related to their gross motor skills, fine motor skills, and social and cognitive skills. With reference to this study, the young participants are seen to gain higher confidence if they can independently and confidently complete the RSP activities, as well as other reading-related activities in their daily lives. The activities include flipping, looking, reading books (printed or non-printed), and doing activities related to reading on their own.

Chapter 2.0: Literature Review

2.1 INTRODUCTION

There has been a lot of research and interest in how public libraries can promote lifelong learning and enhance the reading culture. However, there is not much literature to investigate the impact of reader's development programmes conducted by public libraries in Malaysia. Thus, this study will add value to this area of study. This section will generally discuss the roles of public libraries in the community; the libraries' initiatives, specifically their reading development programmes, and how they impact individuals, communities, and organisations; several examples of readers' development programmes that have been conducted in public libraries; and other impact studies on reading programmes, locally and internationally.

2.1.1 The roles of public libraries in the community

The library has become a type of social and cultural institution that offers high and constant potential for changing the range of resources for the community (Buschman & Leckie 2007). Public libraries have been constructed to play a role as an inclusive place, offering a broad choice of different media and professional guidance in information searching (Kjekstad, 2004).

Leonad and Ngula (2013) affirm that public libraries and community libraries carry significant roles in the community, and their impact on social and economic development should not be underestimated. The UNESCO Libraries Manifesto (1994) emphasised that libraries are gateways to knowledge, as they provide a basic condition for lifelong learning, independent decision-making, and the cultural development of individuals and social groups. Zapata (2009) also conducted a study to determine the role of public libraries in literacy education, and the study identified two lines of action that public libraries serve in literacy education: as an ally of institutions and organisations to carry out literacy activities and as a service unit that provides information resources to participants in literacy education. Some researchers believe that the role of public libraries is to serve as a base for lifelong learning (McClure, Berto, & Beachboard, 1996), while Akporobore (2011) believes that it is to provide information literacy.

Johnson (1986), in the Evaluation of Library Literacy Projects, reveals that literacy programmes depend on community need, resources, and interest in library literacy or reading

projects, and the developers have developed a variety of approaches, ranging from a cooperative role of providing materials, space, and equipment to a teaching role of providing one-to-one tutoring or sponsoring classes. The recommended activities from the evaluation include publicity of literacy services, in-service education for tutors and teachers, and referral of potential students and tutors.

In terms of Malaysian youths, positive youth development will ensure the youths contribute to the development and improvement of the community. Hence, the public library is a place that acts as an education centre that helps the youth become more productive and will increase the overall quality of life for the younger generation in Malaysia (Dasimah et al., 2017).

2.1.2 Libraries' initiatives: Reading development programs

Public libraries are the special agents that promote the idea of information distribution and the concept of universal learning (Islam and Islam 2010). Thus, the availability of the RDPs at public libraries is essential to knowledge dissemination as well as inculcating lifelong learning and reading habits, whether reading for specific or general information, reading for pleasure, or reading to improve language skills.

Reading is a continuous development process, and readiness is merely a concept in various stages of reading (Majzub and Kurnia, 2010). Notably, reading habits in Malaysia are still low, and the community needs more awareness of how important reading is in daily life, not only for the society itself but also for the development of a nation. Although there are many reading activities, programmes, and campaigns that are organised in Malaysia, Saiful Farik et al. (2014) reveal that these are still not highly sufficient to have an impact on society and ensure reading is a favourable habit, like in other countries, such as Japan.

Various public libraries in Malaysia are also doing their part in trying to inculcate information literacy skills in the public, as Edzan (2008) reveals that programmes such as information skills or information literacy workshops and related activities like information hunts and talks are being organised and especially targeted for schools (both teachers and students); government and private agencies; and the public.

According to Zawiyah and Abrizah (2018), "the libraries are transforming, and how librarians continue to impact their local communities and institutions requires the former to look up and out at their local and global communities, finding connections through local programmes, philanthropy, and just meeting in person". They further reiterate that public libraries play unique and powerful roles in the world of community building and engagement.

In general, most libraries around the world have conducted a variety of reading development programmes that expose the community to reading culture and highlight the educational impacts that derive from such programmes. The next section will discuss how these reading development programmes could positively affect individuals, the community, and relevant organisations.

2.1.2.1 Individual

In Malaysia, one of the programmes that has benefited many individuals is READ: One Nation Reading Together (Read Together, 2014). It is a programme that aims to help many children around the world read and learn, as literacy is the basis of a child's intellectual, personal, and cultural development. It started in 2008, and since that moment, this programme has helped many children become better readers. Read Together (2014) has also reported that Scholastic's READ 2012 was a huge success, with a record of over 1 million students across Malaysia, a total of 1,032,352 students from 2,278 schools, and each school receiving their share of 113,900 books. The campaign, in collaboration with the Education Ministry's KM1M, was held at SMK Seksyen 9 Shah Alam on October 24, 2012. The programme was beneficial not only to students as individuals but also to the schools involved.

American Reporting Libraries reveal that their Summer Reading Programme (2010), which was conducted in many libraries across America, was successful, with parents or guardians noting improvements in terms of reading comprehension, improved vocabulary, and increased time spent reading between 20 and 25 percent of the time.

2.1.2.2 Community

As for the community, Izani Daud (2012) said that the reading practise within a society will determine the success or failure of a nation. The more developed and highly civilised nation is inhabited by members who are knowledgeable and always explore a variety of knowledge.

The Museums, Libraries, and Archives Council (2010) reports that an evaluation of a community library programme should highlight the value of undertaking library community engagement, such as having a positive impact on library perceptions held by non-users, benefiting library workforce development, strengthening existing partnerships, and enhancing libraries' roles as the centres of wider community-based learning and skills.

According to a PEW survey conducted in 2013, Americans strongly value the role of public libraries in their communities, both for providing access to materials and resources and

for promoting literacy and improving the overall quality of life. In fact, the survey shows that most Americans say they had positive experiences at public libraries and valued a range of library resources and services.

2.1.2.3 Organisation

Zawiyah and Abrizah (2018) suggest that libraries around the world would have made community engagement their strategic priority by partnering with other organisations and promoting local, state, and national programmes, and the partnerships would have provided libraries with the tools they needed to engage more effectively in their own communities. Moreover, the National Library of Malaysia (2015) has listed the following examples to illustrate how Malaysian libraries have engaged the community with the help of their strategic and institutional partners:

- i. Collaboration with foreign The National Library of Malaysia, for example, has collaborated with the High Commissions of Australia, India, and the United Kingdom, as well as the Embassies of the United States of America, Germany, France, Japan, India, Chile, Singapore, Thailand, and the Czech Republic, among others, in organising exhibitions of books, receiving book donations, and publishing.
- ii. Strategic partnerships with private corporations and companies have proven to be a winning strategy for community engagement by libraries in Malaysia, especially in urban communities. A recent example is Samsung Electronics, whose corporate social responsibility (CSR) contribution is in the form of fully equipped Samsung Smart Libraries (SSL) within a strategic area of the library.

SSLs provide digital services to readers through the Reading Zone for access to electronic reading materials, including books, serials, and newspapers in the National Library's collection. Electronics has also regularly organised activities with the National Library that include talks and hands-on sessions on "Gadgets as Tools for Lifelong Learning" to promote the use of the SSLs.

2.1.3 Success Stories: Libraries and their readers' development programs

Aabo (2005) reveals that the development of innovative partnerships and local engagement has supported many outreach programmes and activities in various libraries, and this leads to better

community cohesion and improved community relations for public libraries as community hubs. However, Aabo (2005) also discloses that the significance of a public library in a community depends highly on their success in performing their role in meeting the needs of the community and how the community values them as an institution that upholds their self-development and the development of their community.

In the local domain, Edzan (2008) reports that Perpustakaan Negara Malaysia (PNM), or the National Library of Malaysia, has played an active role in promoting literacy programmes by focusing mainly on reading and within PNM's short- and long-term plans. He continues to share the proposal to cooperate with the Persatuan Pustakawan Malaysia (PPM), or the Librarians Association of Malaysia, and this programme was called an information literacy seminar during Reading Month. At the same time, PNM initiated a Reading Promotion Policy within which they outlined nine programmes and a series of activities (PNM, 2005). According to PNM's report in 2005, out of the total number of 33 activities, six specifically focused on information literacy, as shown below:

- i. Develop a networking of partners in promoting information literacy.
- ii. Create and develop online information literacy programs with a view to encouraging and developing a society and a culture that is rich in knowledge and information literacy.
- iii. Organize information literacy programs at libraries and suitable institutions.
- iv. Implement online information literacy programs to encourage and to develop a society and a culture that is rich in knowledge and information literacy.
- v. Create a Malaysian information literacy database of reading programs, research, experts and reading activities carried out at the national level; vi. implement online search and information skills courses and workshops.

2.1.4 Other impact studies on reading programs

Universiti Teknologi PETRONAS Information Resource Centre (UTP IRC) director Sabri Abu Bakar shared in the New Straits Times, dated March 27, 2019, that for the past three years, many efforts and activities have been introduced to improve user experience, such as library outreach, structured user engagement sessions, new rules and regulations, space refurbishment, and service enhancement, and the impact of such initiatives is positive where positive comments were received from the users, and the library utilisation statistics have reflected this improvement.

In the same article, the library at Taylor's University equips the students with the

research skills, information skills, and digital literacy skills they need to be at the cutting edge of their discipline and to be influential digital users. Information literacy classes are offered to students from all schools and at all levels, from pre-university to postgraduate studies, and in 2018, 168 classes were conducted with a total of 3,499 students in attendance.

2.1.4.1 Malaysian libraries

In Malaysia, as stipulated in the National Library Act 1972, one of the National Library of Malaysia's (NLM) functions is to promote and facilitate the inculcation of the reading habit among Malaysians (reported by Nafisah, 2015). It is also noted by Saiful Farik et al. (2014) that the Malaysian government did introduce many reading activities to encourage reading habits among its citizens. The establishment of the NILAM programme, the book fair organised by the Ministry, the reading campaign, and many other activities related to reading, however, still did not have high impacts. Besides, it is further mentioned that the reading campaign has been going on for a very long time and has now intensified.

In a survey conducted by Bronny (2016) on The Reading Habits of Library Users in Rural and Urban Areas of Sarawak, Malaysia, a large majority (77.0%) of the users do not participate in library activities at the local, state, or national level. Further probing revealed that they do not participate because they are not interested; they lack the time; they lack information; and they are not given the opportunity. This is surprising, alarming, and a major concern that needs to be addressed accordingly. A fair number of users (22.4%), however, do participate in activities organised by their libraries.

As a result, public libraries in Malaysia need to seek methods and ways to engage the public to utilise the library facilities effectively and to encourage more participants to join the readers' development programmes that are proposed and conducted. As recommended by Zulita in the New Straits Times (March 2019), in the era of the Industrial Revolution 4.0, the library needs a paradigm shift in roles, functions, and services.

Looking at the Malaysian National Reading Promotion Programme, Chin and Yazid (2013) disclose that the Information Literacy Division was set up in 2002 to inculcate the reading habits of Malaysians by planning and coordinating reading and information literacy programmes throughout Malaysia. NLM, as the National Reading Promotion Secretariat, collaborated with various government agencies, Government Link Companies (GLC), and Non-Governmental Organisations (NGOs) to implement its reading promotion programmes throughout the country and inculcate reading habits and information searching skills among

Malaysians. Most of the activities and programmes are carried out in collaboration with other libraries, agencies, and NGOs.

In the same report, Malaysian public libraries offer information literacy programmes to all their registered and non-registered members, including students and adults. The students are offered such activities during their school holidays. Among the activities conducted were user education, an information literacy workshop, and a reading campaign.

Norseha et al. (2015) disclose that many of the existing activities organised by PUSTAKA Negeri Sarawak at both Kuching and Miri branches are crowd pullers, though it is evident that more efforts are needed to sustain active users and nurture more avid readers. They suggest that a strong collaboration with other local public libraries and university libraries would be a valuable vehicle for promoting community engagement.

2.1.4.2 Libraries from other countries

In Singapore, Xiuqi Gong (2016) explains that each library's reading activities were systematic and long-term planning, not like a carnival. After the boom, reading activities were not stagnant but continued to play a persistent reading-guiding role. 10,000 Fathers Reading! was held a total of five times from 2007 to 2011. KidsREAD was held three times from 2004 to 2006. Singapore National Library recruited volunteers all year round who were ready to serve the young readers once a week, at least for half a year, to help readers develop a good habit of reading from childhood. The results of long-term reading promotion activities were to form a solid foundation of reading consciousness and promote the whole country as well as every reader. The reading activities had been widely recognised by the public, so the public better understood the library's efforts and goals to promote the activities for children. Therefore, the children have gradually become a solid reader group in the libraries.

According to Xiuqi Gong (2016), there are few efforts that Singapore Libraries have conducted to inspire literacy programmes, such as having strong government support and political participation. The government's officers who participated have made the readers realise the government's attention to children's reading. Besides, the libraries also had support from cooperative agencies, NGOs, and a variety of media and enterprises. These partners strengthened the organisational success of the programmes, increased the audience, and enhanced the influence of the activities. Moreover, the activities are flexible in that the venues and timing are made convenient for the participants, with kits and rewards provided. With good

persistence from each library, the activities were conducted in a systematic and continuous manner, along with several supportive sponsors who were willing to participate. The promotion of reading activities was also effective, as they involved creative and colourful ways to promote them, such as bus stops, MRT stations, newspapers, websites, and many others. They even had volunteers who engaged themselves in public welfare based on morality, responsibilities, and service consciousness.

As for most libraries in India, Srikanth (2017) reports that the public libraries are mainly supported by the state government and Local Authorities, and sometimes by the Central Government, developed agencies, non-government organisations, and private trusts. In the recent decades, India has tried to increase the literate population and educate citizens through different programmes like Sarva Shiksha Abhiyan (SSA), District Primary Education Programmes (DPEP), and the National Literacy Mission, which have established community information centres and village knowledge centres with the aim of transforming India into an information society where information and knowledge resources are considered critical ingredients for the nation's development.

Srikanth (2017) also revealed several constraints faced by public libraries in India. Some of the limitations were the lack of resources to conduct information literacy programmes, the poor public perception of the library's function, the librarian's reluctance to assume a non-traditional role, and the attitudes and beliefs of the librarians or library professionals towards information literacy concepts.

Therefore, few efforts were reported to improve these issues, where the public libraries were allowed to employ marketing techniques to enable them to understand the information literacy needs of their users and to plan effectively. Another solution was to promote their programmes to the target groups, where the marketing and promotion plan may include promotional activities, such as making use of print, electronic, and communication media to popularise reading programmes.

Public libraries may also facilitate the formation of 'Friends of Library Groups' to help the libraries promote their literacy programmes, create the Library Website to circulate information online, and organise appropriate programmes in conjunction with important events to attract a greater number of participants, such as Independence Day, Human Rights Day, International Women's Day, Population Day, and others.

In Portugal, Neves et al. (2008) present their study, in which recent years have shown

that Portugal's public libraries play a crucial role in promoting reading and that the libraries are an important complement to schools when inculcating reading habits effectively. Ramos and Vila (2015) report that the 'lhavo Public Library (IPL), the local library, presented a project called 'Read to Grow' (RTG) in 2007 with its objectives to increase library use by children, particularly prereaders. The project revolved around children of preschool age and aimed to promote and develop regular and ongoing contact with books and reading and to contribute to the development of competences with the help of the people involved in the project, namely nursery schoolteachers, library staff, and families.

The next step was taken on May 16, 2009, almost a year after the Book Commitment, when the IPL held its first session, 'Reading and Growing. Go Hand in Hand: Book Club for Parents and Children From the beginning of the project and the BC, the children grew and developed, as did their competences and needs as individuals and as readers and consumers of books. The children have grown as readers during this process, as has their constant desire to share their feelings about and relationship with books. This project has clearly had a positive impact on the local community, creating loyal library members of different generations and generating an enthusiastic response from them.

In reports such as *Libraries, Buildings, and Communities* by the State Library of Victoria (2005), four main ways have been identified by which the public library may contribute to community empowerment. The four recommended ways include:

- provide free public access to computer and information technology resources.
- help people to locate information thus creating better informed communities.
- run programs that promote lifelong learning and literacy in the community; and
- build connections between individuals, groups, and government.

Looking at another example of a western country such as the United States of America, Matthews (2013) shares various summer reading programmes (SRPs), which have been common in most public libraries since the turn of the twentieth century. Their popularity attests to the continuing value of enhancing reading among primary and secondary school children in communities across the nation.

The benefits to the children and to the community of a public library's SRP are significant and positive, especially for those at-risk children who will likely experience "summer reading loss." The public library must become much more aggressive in reaching out to more

children than the 10 percent of the community that are traditionally frequent library users.

A survey of Pennsylvania and Southern California public libraries found that SRPs are booming and appealing to large numbers of children and families each year. These studies found that:

- Three-fourths of the libraries noted that circulation increases from 6 to 10 percent during the summer with the assumption that most of this increase can be attributed to the SRP.
- Many SRP children visit the library weekly.
- A third of the libraries report that the SRP attracts more than two hundred children.
- Children who attend summer library programs read on a higher level than those who do not, including those children who attend summer camp programs.
- Library events related to an SRP (crafts, songs, drama, storytelling, and puppetry) extend the reading experience.
- Summer library programs encourage parents to be involved in their children's reading.
- Children participating in the SRP spend more time reading than their counterparts.
- Eleven percent of parents reported that they spend more time reading with or to their children (fifteen hours or more per week).
- The amount of reading is substantial—36 percent of the children read one to twenty books; 17 percent read twenty-one to thirty books; 27 percent read thirty-one to fifty books; and 21 percent read fifty-one or more books.
- Participants are much more enthusiastic about reading.
- Teachers reported that 31 percent of the participants had maintained or improved their reading skills compared to 5 percent of non-participants.

Nonetheless, it is reported by Guion (2019) that there have been several issues regarding SRP over the years, and some of them were that many library summer reading programmes failed because the programmes were too similar to school tasks where the participants had goals to achieve. The options to address these issues are that the librarians can award prizes, but such an effort might detract the participants from the genuine pleasure of reading. One more solution is that libraries can work to reconnect children with their innate desire to learn. Librarians can serve as facilitators by letting children learn about what they care about, and reading will become an enjoyable end and not a chore.

Despite these issues, public and community libraries still play privileged roles in encouraging literacy and nurturing reading within the community. Undoubtedly, it is a part of the libraries' missions, and it is a mission of all types of libraries, from school and public to special, research, university, and national, to inculcate literacy and reading promotion efforts (IFLA, 2011).

2.1.5 Reading program and demographic differences

Malaysia is a signatory to the Convention on the Rights of the Child (CRC) (Unicef, 1995). Child rights under the CRC include rights to survival, development, protection, and participation. A young child's psychosocial well-being and health are interdependent, having long-lasting effects well into adulthood. With the increasing influx of technology into daily lives coupled with lesser reading habits (Shahriza & Hasan, 2007), it is important to ensure that children are given the best stimulus for their developing brains in terms of toys, reading materials, and interaction with other children. Previous research highlights the importance of verbal interaction between children and their parents (guardians), as well as better quality of care, on their cognitive and social development.

In Malaysia, formal primary school attendance at age seven is almost universal because of mandatory enrolment (Attorney Generals Chambers Malaysia, 1996). Attendance at the Early Childhood Education programme is important as it may influence children's readiness for primary school. The Malaysian national education system, through the Malaysian Education Act 1996, aims to provide equal opportunities for quality care and early education to pre-school-aged children (Attorney Generals Chambers Malaysia, 1996). The National Education Policy 2012 focuses on the growth and development of children, including physical, emotional, spiritual, intellectual, and social development from birth to four years (Ministry of Education Malaysia, 2012). Only half of Malaysian parents sent their children under five to Early Childhood Education programmes, lower than neighbouring Thailand (84.0%), Vietnam (71.3%), and Singapore (>95.0%) 12–14. Of these, only half of parents who did so engaged actively with their child in various cognitive stimulation activities.

While Malaysia is a multi-ethnic and multicultural society, children of Chinese descent had the highest odds of attending Early Childhood Education by 3.5 times more than ethnic Malays, who make up the largest ethnic group in Malaysia. Children of mothers who were not working were 2.3 times less likely to attend Early Childhood Education compared to working

mothers in the civil service. Attendance at Early Childhood Education is known to benefit children from different backgrounds with respect to cognitive, behavioural, schooling, and health benefits, such as higher educational attainment and lower rates of crime involvement and substance abuse, which hold true even in adulthood (Reynolds et al. 2011). Children from poorer socioeconomic backgrounds with good Early Childhood Education attendance rates benefit greatly, gaining more literacy skills than their counterparts from higher socioeconomic backgrounds during preschool and year one of primary schooling (Ready, 2010).

In Malaysia, socio-economic status is classified into B40, M40, and T20, which refer to the household income classification. B40 represents the Bottom 40%, M40 represents the middle 40%, whereas T20 represents the top 20% of Malaysian household income. B40 is the Bottom 40% of the Malaysian household income. They earn less than RM4,850 per month. Based on the Household Income and Basic Survey Amenities Report 2019, the B40 group in 2019 comprised 2.91 million households. In terms of the income distribution, the B40 only constituted 16% of total household income. The middle class in Malaysia is the M40, or Middle 40% group. Based on the Household Income and Basic Amenities Survey 2019, the middle class in Malaysia earns between RM4,851 and RM10,970 per month. Also, the M40 group covered 37.2% of the total household income in 2019. The T20 group represents the Top 20% of Malaysian household income. They are high-income earners, exceeding RM10,971 a month. According to the Household Income and Basic Amenities Survey 2019, there were 1.49 million households in the T20 group, and they constituted 46.8% of the total household income. The COVID-19 pandemic has also pushed many Malaysians into lower-income categories due to income reduction and loss of employment.

Children of ethnic Chinese or Indians who are among the Malaysian minority ethnic group having higher Early Childhood Education programme attendance may be similar to the studies showing that children of minority ethnicities have higher enrolment into Early Childhood Education than the majority ethnicity (Magnuson & Waldfogel, 2005). Children with access to more than three books were twice as likely to attend Early Childhood Education than those with fewer books, a broad proxy measure for socioeconomic background and literacy. Children from higher-income households had higher odds of attending Early Childhood Education. In comparison, developed countries reported either a lower or higher prevalence of Early Childhood Education attendance compared to Malaysia. Countries with lower prevalence ranging from 32% to 47% were Australia, New Zealand, the United Kingdom, and Sweden,

while those higher than Malaysia were the USA (60%), Germany (65%–70%), Japan and Hong Kong (90%), as well as France (100%) (Boocock, 1995).

2.2 HYPOTHESES DEVELOPMENT

The hypothesis is a proposed explanation that will act as the starting point for further investigation, which is often limited by the evidence. To learn the impacts of RSP on reading habits, parents' engagement, vocabulary ability, and confidence development based on demographic differences (age, gender, ethnic group, and socioeconomic status), a series of hypotheses designed for this study are discussed in the following section.

2.2.1 RSP in nurturing reading habits

In fostering reading habits for the young, parents should ensure that the child is ready to read. When they are ready to read, it will help to inculcate reading habits among the children, especially those who prefer gadgets and technologies. Reading readiness, according to UNICEF (2012), is the process of preparing a child for reading, encouraging the child to read, and engaging that child in reading. According to Akubuilu et al. (2015), reading readiness entails the maturation of all the mental, physical, and socio-emotional factors that are involved in the reading process. Several strategies identified by Design Instruction (DI, 2013) for improving reading readiness are listed below:

1. Frequent Reading to the child. Reading aloud with expression helps promote fluency and read a variety of books, songs, and rhymes to sustain your interests.
2. Pointing out letters and words. Noticing the letters will help the child become familiar with their shapes. Knowing the letters of the alphabet is an important element in preparing children for reading.
3. Playing word games with the child. In trying to make a child ready to read, games such as word games must be integrated into the child's play. One way of playing word games is by using rhyming words to teach reading. Being able to recognise and make up rhyming words is essential to child literacy and child language.
4. Taking words apart and putting them back together Learning to manipulate sounds in spoken language is an important element of a child's reading readiness. Separate words into phonemes, or sounds. Help him listen for the beginning, ending, and later the middle.
5. Introducing new words to children. Introduce new simple words to the child by first telling the child the meaning of the word and then using the new word. At first, to get her used to

hearing how it is used in speech, If the word is very difficult to pronounce, sound it out very carefully when you say it, then say it normally for the first few times. Remind the child of the meaning of the word as often as necessary.

Debaryshe (1993) affirms that age at onset of home reading routines is an important predictor of language skills, and a home environment deficient in reading negatively impacts school readiness and the brain development of young children (Hutton, 2015). Rajaratnam (2013) recommends that learning to read should start long before a child enters school, and there is a strong connection between the development of a child who develops reading habits at an early stage in life and the level of success that he or she will achieve later in life. It is further noted that infants who have the pre-reading skill to distinguish the building blocks of speech at six months are found to be better at other more complex language skills at two and three years of age, besides being better at acquiring the skills for learning to read at four and five years of age. Therefore, the first hypothesis is:

RQ1: What are the impacts of RSP in nurturing reading habits, based on demographic factors?

Ho: There is no impact of RSP in nurturing reading habits, based on demographic factors.

H1: There are positive impacts of RSP in nurturing reading habits, based on demographic factors.

2.2.2 Parents' engagement in RSP

Reading to babies will stimulate optimal patterns of cortical development during critical and sensitive periods of early child development (Council on Early Childhood, 2014), in which learning that takes place throughout prenatal and postnatal neurodevelopment has a long-term effect on neural circuits and brain function. Hutton et al. (2015) also reiterate that the children with higher levels of home reading exposure showed greater neural activation within the left-sided parietal-temporal-occipital association cortex, a region enabling mental imagery and narrative comprehension. Likewise, the Council on Early Childhood (2014) claims that reading with children in the years before entering kindergarten is associated with increased school

readiness and interest in reading, as well as better health literacy and lower health risks.

One more way for parents to be engaged is to read aloud to their children. Babies and toddlers will begin to understand written language when they hear adults read stories to them and see adults reading newspapers, magazines, and books for themselves. These early experiences with spoken and written language will set the stage for children to become successful readers and writers as they grow older (Amburster, Lehr, and Osborne, 2006). When the child and their parents read together, they will spend more time with each other, and thus, a strong bond between the child and his or her parent(s) will be established. Rituals like reading together, according to Williams (2021), will help foster the family bond by providing unique experiences that the family can share together.

Cognitive skills are not fixed but can be influenced through investment in preschool training, education in school, and, significantly, parental efforts (Kalb and Van Ours, 2014). Cunha et al. (2006) emphasise that the most effective period for cognitive skill investment by parents is early in the life of their children. In Australia, children that have been read to more frequently by their parents at ages 4-5 have achieved higher test scores on the National Assessment Programme in Literacy and Numeracy (Kalb and Van Ours, 2014), and thus, this result can motivate parents and other family members to be effectively involved in encouraging the children to read as early as infancy.

In fact, Joyce (2017) reveals that one of the most important things a parent can do, beyond keeping children healthy and safe, is read to them. In the study by Ledger and Merga (2018), the mother was the most frequently associated with being a home reader (62.8%), with fathers less likely to support reading at home (45.4%). In addition to parents, siblings and grandparents were cited as playing an important role in reading aloud to respondents.

A recent analysis of 29 studies by Swanson et al. (2012), who discovered the "significant, positive effects of read-aloud interventions on children's language, phonological awareness, print concepts, comprehension, and vocabulary outcomes", has recommended that read-aloud interventions "will provide children at-risk of reading difficulties with higher literacy outcomes than children who do not participate in these interventions.

In addition, the importance of sharing stories with young children has been extensively shown in past research, where the more frequently parents share stories with their young child, the better their child's literacy outcomes will be (Roulstone et al., 2014). In Formby's 2014 study, most parents say they support their child's reading by talking about the story (81.3%) or

encouraging their child to notice pictures (80.8%). Three-quarters of parents say they talk about the characters (76.6%), but just half of that (34.4%) say they do other activities related to the story (example: draw, make models, act out scenes, or sing songs). Overall, children had a positive attitude towards being read to, reading aloud, and reading independently. Besides, reading aloud was generally considered a luxury or reward and a break from other curriculum areas or ‘real schoolwork’ (Ledger and Merga, 2018). Therefore, the second hypothesis for the present study is as follows:

RQ2: What are the impacts in getting parents’ engagement in RSP, based on demographic factors.

Ho: There is no impact in getting parents’ engagement in RSP, based on demographic factors.

H2: There are positive impacts in getting parents’ engagement in RSP, based on demographic factors.

2.2.3 Reading program in improving a child’s vocabulary ability

The American Academy of Paediatrics recommends beginning reading at birth, where it is perceived that reading to children can increase word knowledge and success in school (Clay et al., 2019). A survey conducted by Formby (2014) shows that the more communication activities parents engage in (talk about the story, encourage children to notice the pictures, talk about the characters), the more likely children are to have above-average vocabulary attainment. It is revealed that the children of parents who engage in all communication activities are nearly five times more likely to have above-average vocabulary attainment than if their parents engage in only one activity.

In another study carried out by Kalb and Van Ours (2014), the frequency of reading to children at a young age has a direct causal effect on their schooling outcomes, regardless of their family background and home environment. Thus, parents can read aloud to their children, which in turn will help children learn new words, gain more knowledge, and learn about written and spoken language. Similarly, the Department of Education and Training in Victoria, Australia (2018), reveals that children who start school with greater literacy skills perform better in school, and not just in language-based subjects like English.

Research suggests that being read leads to children’s increased vocabulary (Beck,

McKeown, & Kucan, 2002), reading comprehension, and cognitive skills (Kalb and Van Ours, 2014). Kalb and Van Ours added that previous studies have found a positive association between parents reading to their children and the child's subsequent reading skills, language skills, and cognitive development. Children who frequently read at an early age enter school with a larger vocabulary and more advanced comprehension skills (Mol & Bus, 2011). Armbruster et al. (2006) describe three useful recommendations on how to read aloud effectively, which will help the child achieve vocabulary ability:

1. Make reading a pleasure.

Read to your child in a comfortable place. Have him or her sit on your lap or next to you so that he or she can see and point to the print and the pictures. This will help a child identify new words by looking at the words and pictures. Show him or her that reading is fun and rewarding.

2. Show enthusiasm as you read with your child.

Read the story with expression. Make it more interesting by talking as the characters would talk, making sound effects, and making expressions with your face and hands. When children enjoy being read to, they will grow to love books and be eager to learn to read them.

3. Read to your child often.

Set aside special times for reading each day, maybe after lunch and at bedtime. Reading times can be brief—about 5 to 10 minutes. The more you can read to him, the better—if he is willing to listen. If the child frequently reads, more new words will be learned.

Therefore, the third hypothesis is:

RQ3: What are the impacts of RSP in a child's vocabulary ability, based on demographic factors?

Ho: There is no impact of RSP in child's vocabulary ability, based on demographic factors.

H3: There are positive impacts of RSP in child's vocabulary ability based on demographic factors.

2.2.4 Reading program in developing a child's confidence development

According to NASET (2021), confidence is the belief that one's behaviour will, for the most part, lead to the successful completion of tasks or projects. They further describe that a child

can feel good about himself or herself because he or she was able to find a specific answer to part of an assignment, persevered in his or her work, or gave it his or her best effort. Thus, a sense of accomplishment provides closure, a necessary factor in believing in one's ability and one's capacity to be successful.

Besides, several studies have shown that good-quality early childhood education and care (ECEC) can have a positive effect on the educational, cognitive, behavioural, and social outcomes of children in both the short and long term, including those who are most deprived in terms of household income (Sylva et al., 2010; Melhuish et al., 2015). In a study by Melhuish, Gardiner, and Morris (2017), it was perceived that ECEC interventions also enhanced the children's confidence levels and social skills, which provided a better foundation for success at school (and subsequently in the workplace).

When students struggle with reading, it can quickly lead to a lack of confidence and low self-esteem (Child Development Institute, LLC, LLUS Shreveport, 2019). Hence, children should be exposed as early as possible so that they can improve their reading skills at an earlier stage and achieve success in school. LLUS Shreveport (2019) adds that by allowing children to choose what they want to read, it will turn reading from being a chore into a pleasure, where finding a series of books that a child enjoys reading can provide the motivation to continue reading about the characters and stories that the child has become invested in. When children enjoy reading, they can enrich their vocabulary and improve the language skills that are required to be successful students, which in turn will increase their confidence levels.

A study by Tomopoulos, Dreyer, Tamis-LeMonda, Flynn, Rovira, Tineo, and Mendelsohn (2006) investigated the relationship between books, toys, parent-child interaction, and literacy development in young Latino children. The study found that reading aloud by parents four days a week was associated with decreased early intervention (EI) eligibility. It is indicated that parent support and engagement are crucial in developing their child's reading confidence. Additionally, in measuring reading comprehension, reading motivation, and reading strategies, Guthrie, Wigfield, Barbosa, Perencevich, Taboada, Davis, Scaffidi, and Tonks (2004) indicated an instructional framework combining motivation support and strategy instruction that influenced reading outcomes based on an engagement perspective of reading development. Therefore, the fourth hypothesis for the present study is as follows:

RQ4: What are the impacts of RSP in child's confidence development, based on

demographic factors?

Ho: There is no impact of RSP in child's confidence development, based on demographic factors.

H4: There are positive impacts of RSP in child's confidence development, based on demographic factors.

2.2.5 Reading program's execution, intervention and RSP participation

The RSP is an in-house-developed literacy programme of PUSTAKA Negeri Sarawak. The development processes and the recognition awards received prove that the RSP is widely recognised by early childhood education experts. With its comprehensive and interactive contents, the RSP is capable of achieving the objectives of its creation. However, it is understood that the RSP is offered only to selective participants (through the outbound programme planned by the PUSTAKA) and open to the 'Internet-literate public' (through the online platform for the training). In addition, the RSP is also seen as being implemented as a 'one-off' programme, which raised a concern about whether the RSP has potentially reached out widely in the state, especially among illiterate people in rural areas. Therefore, the food for thought is whether programme execution and intervention play a role in determining the effectiveness or impact of the RSP.

According to Jones, Gottfredson, and Fottfredson (1997), the effectiveness of the literacy programme depends on the level of programme implementation. There are determinants of the literacy programme's success, including: the programme's interventions (Allington, 2002; Foorman, Breier, & Fletcher, 2003; Joseph, 2008); the literacy programme, instructional technology, and process (Chambers, Cheung, Madden, Slavin & Gifford, 2006; Slavin, Lake, Chambers, Cheung, & Davis, 2009); the use of metacognitive strategies, cooperative learning, or goal setting and feedback (Slavin, 2009); and the prevention and intervention efforts (Coyne, Kamenui, & Simmons, 2001).

There are necessary interventions that contribute to the literacy programme's success, which may include political and professional attention to designing and funding the educational efforts (Allington, 2002), well-trained programme instructors, and small-group or one-on-one interventions (Foorman, Breier, & Fletcher, 2003). The sufficient intensity and duration of the supportive programme's instruction and intervention may have a significant impact on the target literacy programme's participants due to their capacity to understand, participate in, and apply

the programme's curricula. Therefore, the fifth hypothesis for the present study is as follows:

RQ5: Does the program's execution and intervention contribute to the RSP participation?

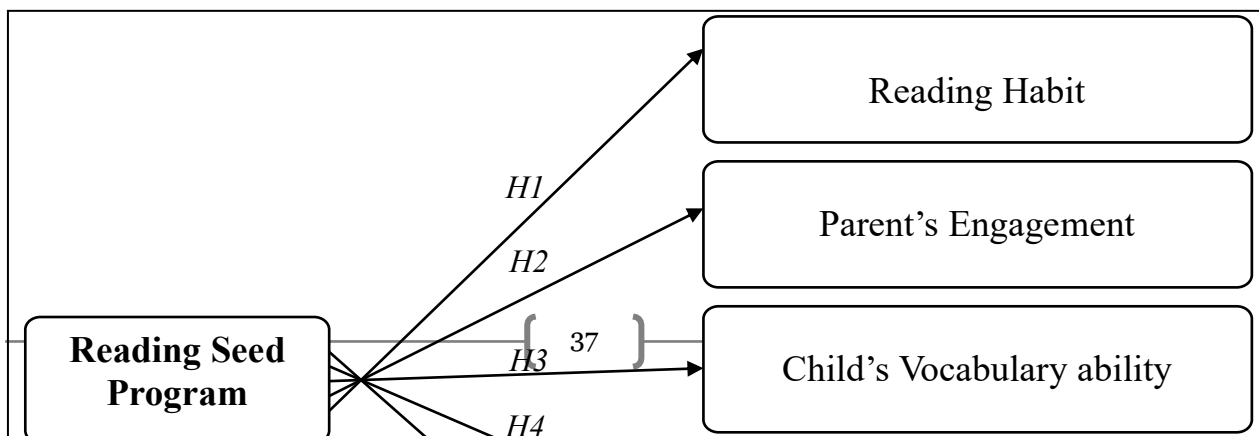
Ho: The program's execution and intervention does not contribute to the RSP participation.

H5: The program's execution and intervention contribute to RSP participation.

2.3 CONCEPTUAL FRAMEWORK

Libraries around the world share a common objective in their establishment as an information warehouse and source of knowledge resources. In achieving the noble objective of maximising the literacy levels of the population, many libraries are organising various reading activities, reading encouragement, and reading development programmes. For some, the programmes are implemented to fulfil the requirements of the library's yearly key performance indicator (KPI). Nevertheless, the impact of reading development programmes is often understudied, and empirical data, especially from within the communities served, is less understood.

Figure 2.3: Conceptual Framework of Impact Study on the Reading Seed Program



As mentioned earlier, the critical question to be addressed by the RDP is whether the reading programmes invested are generating the desired impact in nurturing and inculcating reading interest among young readers. This case study is proposed to appraise the impact of the RDP on PUSTAKA Negeri Sarawak. The Reading Seeds Programme (RSP) has been selected because it has the potential to become a feeder for cognitive investment in the library's functions and services. By developing reading interests and encouraging reading habits among the targeted users or participants, the information and resource providers could keep up with optimal facilities and enhance staff capabilities and abilities to serve the clients better.

Chapter 3.0: Methodology

3.1 INTRODUCTION

This 12-month research project employs a quantitative research design to study the impact of the Reading Seed Programme (RSP) of PUSTAKA Negeri Sarawak. The research design, sampling design, data analysis, preliminary study, and scope and limitations are discussed as follows:

3.2 RESEARCH DESIGN

This study is designed as quantitative research that employs a cross-sectional quantitative survey method. The survey data is gathered through the distribution of the questionnaires, which are adapted from the previous study (Formby, 2014) and the materials of the RSP (PUSTAKA Negeri Sarawak, 2021).

3.3 SAMPLING DESIGN

The present study used the purposive sampling technique to identify relevant respondents to administer the survey questionnaire. The respondents are recruited among those who are enrolled in the RSP. The data provided by the Reading Seed Programme team of PUSTAKA Negeri Sarawak shows that 1027 participants have signed up for the RSP programme, which covers Kuching, Samarahan, and Lundu. It is recorded that only 590 have completed the RSP training and received the RSP kit. Therefore, as shown in Tables 3.3a and 3.3b, the minimum satisfactory and usable responses of the sample size for the present study are 234 participants (with a 95% confidence level) for an N population of 600 (Krejcie & Morgan, 1970). Taking into consideration the participants' commitment to completing the RSP, the sample size of 300 is presumed sufficient to cover the three targeted survey locations as advised by the PUSTAKA Negeri Sarawak research committee.

Table 3.3a: Sample Size Calculation

<i>Year</i>	<i>Location</i>	<i>Enrolled RSP</i>	<i>Total</i>	<i>RSP Kit Recipients</i>	<i>Total</i>
2017	Kuching	21		21	
2018	Kuching	26		26	
2019	Kuching	146		146	
2020&2021	Kuching	601*	794	214**	407
2018	Samarahan	0		0	
2019	Samarahan	67		67	
2020&2021	Samarahan	70*	137	20**	87
2018	Lundu	38		38	
2019	Lundu	29		29	
2020&2021	Lundu	29	96	29	96
<i>Total</i>			<i>1027</i>		<i>590</i>

*Include those who registered for open learning

**Received RSP kit

Table 3.3b: Sample Size Calculation

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

3.4 MEASUREMENT

3.4.1 Questionnaire

The data for this study was obtained through a survey. Notably, RSP is an exclusive in-house programme developed and owned by PUSTAKA Negeri Sarawak. The present study is incapable of tracing any academic study or publication that tests the RSP specifically. Thus, in developing the survey questionnaire, this study has adopted and adapted the items from four main sources of RSP and reading-related programmes, which are listed as follows:

1. PUSTAKA's Reading Seed feedback form.
2. RSP's Module for Parents.
3. RSP's kit.
4. Formby, S. (2014). Children's Early Literacy Practices at Home and in Early Years Settings: Second Annual Survey of Parents and Practitioners. *National Literacy Trust*.

The survey questionnaire designed for this study comprises six sections:

1. Demographic details include age, gender, marital status, place of birth, current location, the source to obtain the RSP kit, date/year of receiving the RSP kit, ethnicity, highest qualification, employment, household income and details on the respondents' child who participates in the RSP (birth date, place of birth and gender).
2. Reading habits – to measure the impact of RSP as early reading practices at home; 10- level Likert scale measure ranging from 0 (Not applicable / strongly disagree) to 10 (strongly agree).
3. Parents' engagement – to measure the impact of RSP on the parent's involvement supporting activities as stated in the RSP's module for parents; 10- level Likert scale measure ranging from 0 (Not applicable / strongly disagree) to 10 (strongly agree).
4. Vocabulary ability – to measure the impact of RSP on the child's developed language skills; 10- level Likert scale measure ranging from 0 (Not applicable /

strongly disagree) to 10 (strongly agree).

5. Confidence development – to measure the impact of RSP on the child’s developed psychomotor skills; 10- level Likert scale measure ranging from 0 (Not applicable / strongly disagree) to 10 (strongly agree).
6. Feedback on the RSP - to measure the usefulness of the RSP; 10- level Likert scale measure ranging from 0 (Not applicable / strongly disagree) to 10 (strongly agree).

This study uses a 10-level Likert scale as advised by PUSTAKA’s research committee. The survey questionnaire developed for this study is summarised in Table 3.3c.

Table 3.3c: Summary of adopt/adept Questionnaire.

<i>Dimension</i>	<i>References</i>	<i>Reliability value</i>	<i>Number of Items</i>
Demographic	• Formby, 2014	<i>*unknown /</i>	15
Reading Habit	• PUSTAKA’s	<i>unpublished</i>	13
Parent’s Engagement	Reading Seed		12
Child Vocabulary ability	Feedback form.		20
Child Confidence development	• Reading Seed		16
RSP kit	Module for Parents		10
RSP uses	Reading Seed kit		10
<i>Total</i>			96

3.4.2 Preliminary Study

A small-scale preliminary study was conducted, though the need for the pre-testing study and/or pilot study is debatable. Basically, a pilot study is conducted to test the research questions, methodology, and research instrument, while pre-testing is conducted to ensure the research instrument is clearly understood by the respondents. Scholars (Hulland, Baumgartner, & Smith, 2018; Memon, Ting, Ramayah, Chuah, & Cheah, 2017) recommended that a survey be thoroughly pretested before it is launched. The pre-testing is conducted to verify the feasibility (reliability and validity) of the survey instruments (Memon et al., 2017). Additionally, as recommended by Van Teijlingen and Hundley (2001), the present study conducts pre-testing to verify the

adequacy of the research instruments, assess the feasibility of a full-pledge survey, assess whether the research protocol is realistic and workable, reveal logistics issues, collect preliminary data, ensure whether the sampling frame and technique are effective, and identify the credibility of the adopt-and-adapt survey questionnaire items.

The pre-test was conducted where the respondents (RSP users or participants) were contacted through phone calls, and then they were invited to participate in an online survey. Some of the surveys were conducted using phone interviews, as the respondents had experienced Internet connection difficulties. Connelly (2008) recommended that the number of pre-test participants be 10% of the sample size projected for the main study. Although the targeted actual sample size of the study is 300 respondents (as required by Pustaka, participants from Kuching, Samarahan, and Lundu), 135 responses were collected (150 were approached) for the pre-testing. The pre-testing participants were RSP users or participants from other locations. Therefore, the feasibility of the survey instrument is assessed through the validity (face, content, and criterion) and reliability analyses demonstrated in the following section.

3.4.2.1 Face Validity

A face validity protocol is conducted to verify the extent to which a measurement (questionnaire) appears ‘on its face value’ to measure the construct of interest. The RSP and PANDei teams of PUSTAKA Negeri Sarawak, led by Mr. Edison Ricket (Librarian, Head of Information Services Division, Reference Librarian), were invited to verify the survey questionnaire. They are required to give their responses to the questionnaire. At the end of the questionnaire, there are open-ended questions asking them to provide their comments on the contents, intensity (coverage), language, length (total survey items), section, dimension, and item (statement) arrangement, measurement scale, overall questionnaire design, and other related issues (if any). There were 10 valid responses received. Minimal changes were made to the questionnaire based on the comments and suggestions received, such as improving the pictures used on the front page of the online survey questionnaire.

3.4.2.2 Content Validity

As mentioned earlier, the survey questionnaire in this study comprises six sections that include demographic details, reading habits, parents' engagement, vocabulary ability, confidence development, and feedback about the RSP. In order to ensure that the survey covers the construction of interest, content validity is conducted. Mr. Edison Ricket of PUSTAKA Negeri Sarawak has recommended the researchers contact Dato' Dr. Rashidah Bolhassan and Dr. Siti Zaleha M. Hashim for content validity verification. Both are the experts for PUSTAKA's RSP. Apparently, both could not be involved, most probably due to time constraints, the hectic job schedule, and availability. Therefore, the researchers of this study have applied their own expertise in research methodology, lifelong learning, language, and information management to revise the survey instrument comprehensively and thoroughly to ensure that all the items (statements) and the scale cover the constructs as conceptualised.

3.4.2.3 Criterion Validity

Criterion validity is a protocol to ensure that the extent to which the targeted respondents' scores on a measure correlate with other variables (known as criteria) that one would expect to be correlated with. There are two types of criterion validity to ensure the feasibility of the survey instrument: convergent and discriminant validity.

The convergent validity refers to how closely the new scale is related to other variables and other measures of the same construct. As pointed out earlier, there are five constructs to make up this study, such as reading habits, parents' engagement, vocabulary ability, confidence development, and RSP usefulness. Each construct is conceptualised as being uni-dimensional. Hence, convergent validity is performed to identify whether those constructs are distinctive from each other. Convergent validity is established when the average loading value of a variable is greater than the cut-off value of 0.7.

Discriminant validity refers to the extent to which the scores on the measure are not correlated with the measures of variables that are conceptually distinct. Supposedly, the five constructs (reading habits, parents' engagement, vocabulary ability, confidence development, and RSP usefulness) of this study are conceptualised

as uni-dimensional constructs. Hence, discriminant validity is checked to identify whether those constructions are distinctive from one another. The discriminant validity is established when the variance extracted value is greater than the correlation square.

In particular, the data showed Kaiser-Meyer-Olkin (KMO) values of IV (0.921) and DV (0.915), which are greater than 0.8. It indicates that the sampling adequacy for each variable is sufficient for further statistical analyses. In addition, the Bartlett's Test of Sphericity marked a significantly less than 0.05 value (0.000), which statistically indicated that there is no certain redundancy between the variables. The inspection of the communality extraction has shown that all items accounted for more than the cut-off point of 0.5. Communality is estimated based on the variance of each item accounted for by the components. Hence, further convergent and discriminant validity are analysed as follows: The Pattern Matrix table (as shown in the appendix) of all the items' variance loading values is inspected. Average loading, variance extracted, and correlation square are calculated and summarised as in Table 3.4.2.3. It is clearly found that the average loading value for all variables is greater than 0.7. In addition, the variance extracted is greater than the correlation square. Therefore, convergent and discriminant validity are established.

Table 3.4.2.3: Summary of average loading, variance extracted and correlation square calculation.

<i>Variables</i>	<i>Average Loading</i>	<i>Variance extracted</i>	<i>Correlation</i>	<i>Correlation Square</i>
Reading Habit	0.7775	0.6045	0.3126	0.0977
Parent's Engagement	0.7205	0.5190	0.6700	0.4489
Child Vocabulary ability	0.7698	0.5925	0.6901	0.4763
Child Confidence development	0.7778	0.6050	0.3550	0.1261
RSP	0.8092	0.6548	0.7340	0.5388

3.4.2.4 Reliability

Reliability assessment refers to the internal consistency of the items (statements), which reflects the conceptualised construct of the study. It is important to assess the correlations between the multiple items in a construct that are intended to measure the same construct. A general acceptable reliability coefficient (Cronbach's alpha value)

would be greater than 0.70, which indicates the suitability of the data set for further statistical analysis (Tavakol & Dennick, 2011). The reliability of the data is inspected and summarised in Table 3.4.2.4. It is clearly discovered that the internal consistency of the measure is established and is greater than 0.7. Therefore, the reliability of the instrument is established and highly reliable.

Table 3.4.2.4: Summary of the reliability of RSP adopt/adapt Questionnaire.

<i>Dimension</i>	<i>Number of items</i>	<i>Reliability value</i>
Reading Habit	13	0.879
Parent's Engagement	12	0.960
Child Vocabulary ability	20	0.963
Child Confidence development	16	0.969
RSP	20	0.977
<i>Total</i>	96	

3.4.2.5 Questionnaire Fine-tuning.

The questionnaire was initially designed with a 5-level Likert Scale. However, it is revised accordingly, based on the recommendations suggested by PUSTAKA's RSP team (face validity) and the research committee panel (after the inception report presentation on March 31, 2022, and the instrument's revision meeting on May 17, 2022, and August 4, 2022). Among the changes are:

1. The use of local pictures as the survey's interface.
2. The Likert scale is changed from a 5-level to a 10-level measure.
3. Avoid double-barrel questions; such questions are separated.
4. Organize the arrangement of the sections; for example, in Section Two of the questionnaire, the printed and interactive media are split into two subsections.
5. The 5th research objective was added to investigate the relationship between the programme's execution and intervention towards RSP participation (impact of RSP).

3.5 DATA ANALYSES

Learning from the preliminary study, the measure instrument (questionnaire) was revealed to be valid and reliable enough to be used for actual data collection. This

study is conducted cross-sectionally, and thus, the level and unit of analysis in this study are individual, i.e., the users and participants in the RSP (those who completed RSP training and received the RSP kits). All levels of the samples (strata based on the demographic attributes and characteristics of RSP participants) will be involved as a single point of data collection. The unit of analysis is at the individual level and is conducted across demographic profiles. To add to that, the level of analysis includes RSP participants. The collected data will be analyzed using statistical software for SPSS Version 26.

RSP is hypothesized to indicate the positive impacts that derive from the child's reading habits, parents' engagement, vocabulary ability, and confidence development, based on demographic factors. The conceptual framework design of this study indicates a formative form of relationship between RSP and reading habits, parents' engagement, a child's vocabulary ability, and a child's confidence development. Thus, in testing the hypotheses, regression analyses are performed. The regression technique is used to assess the strength of a relationship between dependent variables and independent variables. Regression helps in predicting the value of dependent variables from independent variables. The regression analyses aid in predicting the value of a dependent variable from independent variables. Specifically, regression R^2 helps in predicting how much the variance will measure the degree of dispersion of data around the sample's mean and is being accounted for in a single response (dependent variable) by a set of independent variables. Cohen's f^2 (Cohen, 1988) is appropriate for calculating the effect size within a multiple regression model in which the independent variable and the dependent variable are both continuous. The standardized coefficient (β) and T -statistic (and associated p -value) are important indicators of regression. Specifically, the (β) value is used to compare the strength of the relationships between each of the independent variables and the dependent (largest β = strongest relationship). The T value (and associated p -value) tells whether the individual variable has a significant effect on dependent variables, controlling for the other independent variables. Table 3.5 summarizes a mapping of the research objectives, research questions, hypotheses, and data analyses.

Table 3.5: A mapping of research objectives, research questions, hypotheses, and data analyses.

	<i>RO</i>	<i>RQ</i>	<i>Hypothesis</i>	<i>Questionnaire *</i>		<i>Analysis</i>
				<i>Section</i>	<i>No. of Items</i>	
Demographic				1	18	Descriptive
Reading Habit	RO1	RQ1	H1	2	8	Regression
Parent's Engagement	RO2	RQ2	H2	3	5	Regression
Vocabulary Ability	RO3	RQ3	H3	4	6	Regression
Confidence Development	RO4	RQ4	H4	5	17	Regression
Execution and intervention	RO5	RQ5	H5	6	12	Regression
RSP				7	8	
<i>Total items</i>					88	

3.6 SCOPE AND LIMITATION

This empirical research studies the RSP participants from three locations, namely Kuching, Samarahan, and Lundu. The samples are selected from readily available and accessible respondents based on the data kept by the RSP team of PUSTAKA Negeri Sarawak. The scope of the study is limited to the RSP kit's use, readings, parents' engagement, vocabulary ability, confident development, and demographic attributes. Hence, the findings may not fully reflect the general population in Sarawak. The data analysis will include regression analysis to understand the impacts of RSP.

Chapter 4.0: Findings (Statistical Analysis)

4.1 INTRODUCTION

This chapter performs data screening to ensure that quality data could be analysed to address the premises of whether the invested reading programmes (specifically the Reading Seed Programme) have generated the desired impact in nurturing and inculcating reading interest among the young readers. The findings of this study are crucial in developing reading interests and encouraging reading habits among the targeted users (respondents). Therefore, the information and resource providers will be able to provide optimum facilities and enhance the PUSTAKA staff's (especially among RSP trainers) capabilities and abilities to serve the clients better.

4.2 RESPONDENTS' PROFILES

Mass data collection was conducted, and the summary of the collected data is shown in Table 4.3a. The data collection took place during the whole month of September 2022. Before data collection, the researchers conducted enumerator training before the appointed enumerators approached the identified Respondents. The enumerators are mostly volunteers from PUSTAKA's Negeri Sarawak PANDei and those who are familiar with the RSP. The list of identified Respondents is the list of RSP Respondents who registered with PUSTAKA Negeri Sarawak through outbound campaigns or online.

It was mentioned in Chapter 3 [Subsection 3.3 (Sample Size)] that the targeted sample size is 300. This sample size is presumed sufficient to cover the three targeted survey locations (Kuching, Samarahan, and Lundu), as advised by the PUSTAKA Negeri Sarawak research committee. The enumerators had approached 417 Respondents, but 385 complete data points have been identified (which yielded a

92.33% response rate). Table 4.2 illustrates the details of the Respondents' profiling.

Table 4.2 Respondents' Demographic Profiles

<i>Demographic</i>	<i>n</i>	<i>%</i>	<i>Demographic</i>	<i>n</i>	<i>%</i>
(Respondents)					
Age			Gender		
20-30	82	21.3	Female	326	84.7
31-40	255	66.2	Male	59	15.3
41-50	32	8.3	<i>Total</i>	385	100.0
Not specified	16	4.2	Household Income		
<i>Total</i>	385	100.0	Less than RM1000	40	10.4
Ethnicity			RM1001-RM3999	169	43.9
Bidayuh	36	9.4	RM4000-RM8500	136	35.3
Chinese	116	30.1	Above RM8500	40	10.4
Iban	15	3.9	<i>Total</i>	385	100.0
Orang Ulu	4	1.0	Employment		
Malay	196	50.9	Public Sector	186	48.3
Melanau	16	4.2	Private Sector	87	22.6
Not Specified	2	5.0	Self-employed / small business	28	7.3
<i>Total</i>	385	100.0	Unemployed / housewife	82	21.3
Current Location			Not specified	2	0.5
Kuching	272	70.6	<i>Total</i>	385	100.0
**Others	113	29.4	Highest Qualification		
<i>Total</i>	385	100.0	University Degree	183	47.5
Place of birth/origin			Diploma	85	22.1
Kuching	213	55.3	Certificate	31	8.1
*Others	171	44.4	Secondary School	81	21.0
Not Specified	1	0.3	Primary School	5	1.3
<i>Total</i>	385	100.0	<i>Total</i>	385	100.0
Marital Status			Child's Place of Birth		
Married	380	98.7	Government Hospital	307	79.8
Single parent	5	1.3	Private Hospital	76	19.7
<i>Total</i>	385	100.0	Others	2	0.5
(Child)			<i>Total</i>	385	100.0
Age***			Child's Place of Birth		
0-3 yrs old (born 2019-2022)	247	64.2	Government Hospital	307	79.8
4-6 yrs old (born 2016-2018)	122	31.7	Private Hospital	76	19.7
≥ 7 yrs old (born in ≤ 2015)	10	2.6	Others	2	0.5
Not Specified	6	1.6	<i>Total</i>	385	100.0
<i>Total</i>	385	100.0			

Table 4.2 Respondents' Demographic Profiles

Demographic	n	%	Demographic	n	%
Child's Gender			Date/year received the RSP kit		
Female	184	47.8	2017 – 2019	69	17.9
Male	201	52.2	2020 - 2022	313	81.3
<i>Total</i>	385	100.0	Not Specified	3	0.8
			<i>Total</i>	385	100.0
The RSP kit obtained from:			RSP Joining		
Health Clinic/Polyclinic	26	6.8	Voluntary	274	71.2
PUSTAKA Negeri Sarawak	341	88.6	Invited	77	20.0
Others	18	4.6	Selected	28	7.3
<i>Total</i>	385	100.0	Compulsory	2	0.5
***Others: Can't remember, Event booth, KEMAS, Local Council, PERKIM, Pusat Internet 1Malaysia.			Others (*from friend)	4	1.0
			<i>Total</i>	385	100.0
Child's siblings have used the RSP Kit					
None	240	62.3			
1 and/or more	145	37.7			
<i>Total</i>	385	100.0			
Source of reading at home					
	(yes)		(No)		
Internet	285	74.0	100	26.0	
Computer/Laptop/Tab	221	57.4	164	42.6	
Smart Phone	315	81.8	70	18.2	
Television	297	77.1	88	22.9	
Astro	107	27.8	278	72.2	
Radio	90	23.4	295	76.6	
Others	33	8.8	*Books, Books & comics, Books & flip card, Kindle, Netflix kids, Newspaper		

*Place of birth/origin: [Other parts in Sarawak: Balingian, Bau, Betong, Bintangor, Bintulu; Daro, Engkilili, Kabong, Kanowit, Lawas, Limbang, **Lundu**, Matu, Miri, Mukah, Oya, Pusa, Rajang, **Samarahan**, Saratok, Sarikei, Sebuyau; Serian, Sibuan, Simunjan, Spaoh, Sri Aman, Tatau]; [Other parts in Malaysia: Alor Setar, Johor, Kedah, Kelantan, Kuala Lumpur, Kuala Terengganu, Melaka, Pahang, Perak, Pulau Pinang, Sabah, Selangor]; [Outside Malaysia: Brunei, Indonesia].

Current Location: [Other parts in Sarawak: Bau, Betong, Bintulu, **Lundu, Miri, Mukah, Pusa; **Samarahan**, Saratok, Sarikei, Serian, Sibuan, Siburan, Tapah]; [Other parts in Malaysia: Cyberjaya, Kuala Lumpur, Selangor]; [Outside Malaysia: Singapore].

***Child age: ≥ 8 yrs old (born in ≥ 2014), 7 yrs old (born in 2015), 6 yrs old (born in 2016), 5 yrs old (born in 2017), 4 yrs old (born in 2018), 3 yrs old (born in 2019), 2 yrs old (born in 2020), 1 yr old (born in 2021), 0 yr old (born in 2022).

4.3 DATA SCREENING

Data screening procedures were carried out in the present study to guarantee the accuracy of the data collected from the Respondents as well as the credibility of the collected data for further measurement and structural analyses.

4.3.1 Missing Value Imputations

Missing value is a problem in which respondents return incomplete survey forms or give more than one answer for a statement. There are several usable datasets, but some have incomplete information (missing values). The missing values relate to the missing information on the Respondents demographics. Technically, incomplete data is not an issue in this study, as the data collection utilised an online survey using Google Forms. There is a mechanism in this online survey where it is compulsory for the Respondents to provide their responses to every item in the questionnaire (except for several demographics and open-ended questions). Therefore, the occurrence of missing values in the data is minimised.

4.3.2 Reliability of the data

In particular, the estimated internal consistency of the data was indicated by a reliability coefficient of Cronbach's alpha with a significant α value greater than 0.70 (Hair et al., 2006) with a combination of together as a scale (Cronbach, 1951; Nunnally, 1967). The reliability test was conducted to examine the stability and equivalence of measures that correctly represented the concept of the study. The scales, coefficient Cronbach's Alpha (α) value, and number of items are summarised in Table 4.3.2.

Table 4.3.2: Scales' Reliability Analyses

	No. of Item	Alpha (α)	Mean	Variance	Std. Deviation
The Program (RSP & RSP kits)	12	.967	100.60	410.349	20.257
Reading Habit	13	.874	85.96	333.648	18.266
Parents' Engagement	12	.963	92.08	488.721	22.107
Vocabulary Ability	16	.811	91.74	358.216	18.927
Confidence Development	12	.951	89.32	770.305	27.754
Reading Seed Program (intervention)	4	.727	6.39	5.013	2.239
Overall	69	.964	466.34	7197.955	84.841

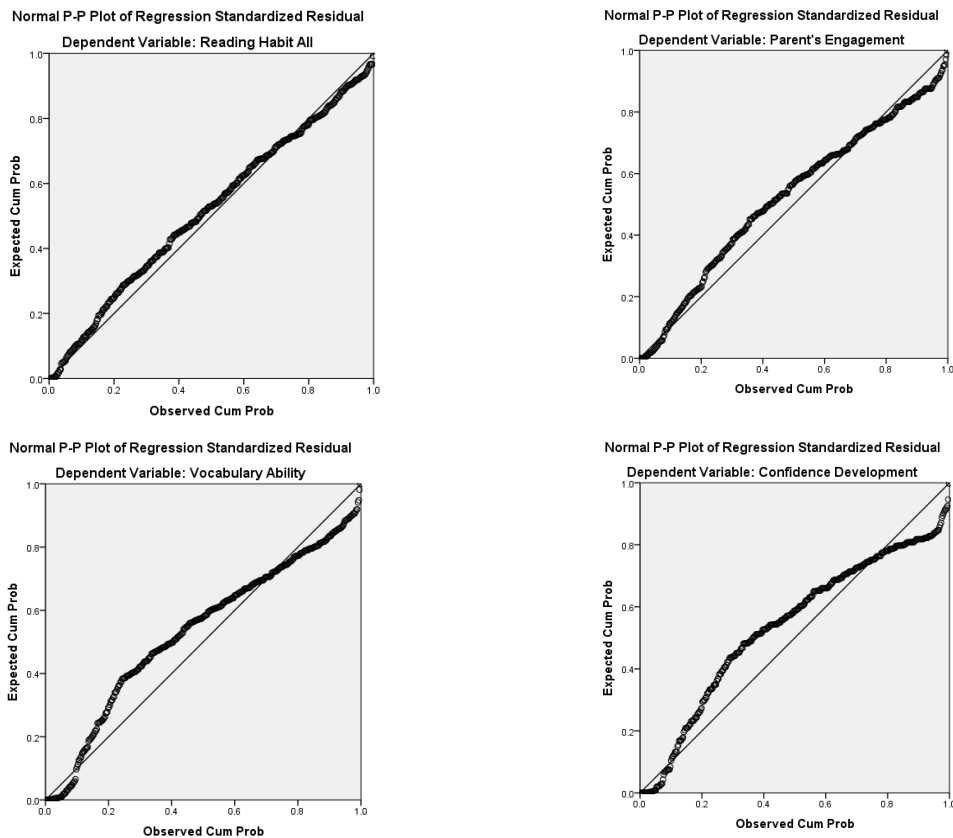
The reliability result indicated that the questionnaire is reliable ($\alpha > 0.800$) to measure four dependent variables (reading habit, parents' engagement, vocabulary ability, and cognitive development) and four independent variables (reading seed programme). A similar acceptable range of internal consistency reliability ($\alpha > 0.700$) is found in the Reading Seed Programme's execution and intervention. According to Nunnally (1967), a *minimum* value of 0.50 is an acceptable range for the internal consistency of a new measure instrument, and a value greater than 0.70 is the minimum requirement for an adopted or adapted instrument. For this applied or consultation project, a value of at least 0.80 is required, and this study has fulfilled the requirement. This result is consistent with the scale's reliability in the pilot test shown in Section 3.4.2.4. Hence, further hypothetical analyses are performed.

4.3.3 Regression Assumption

This study hypothetically investigates the impacts of RSP on nurturing reading habits, parent engagement, vocabulary ability, and a child's confidence development based on demographic elements. In addition, this study is also designed to investigate the impact of RSP executions (The programme and the RSP kits) and RSP interventions (the programme's organisers trekking and monitoring) on RSP participation. Therefore, to quantify the impact of the RSP, a series of regression test analyses were performed. There are four basic statistical assumptions before performing the hypothetical analysis (Hair et al., 2006), including:

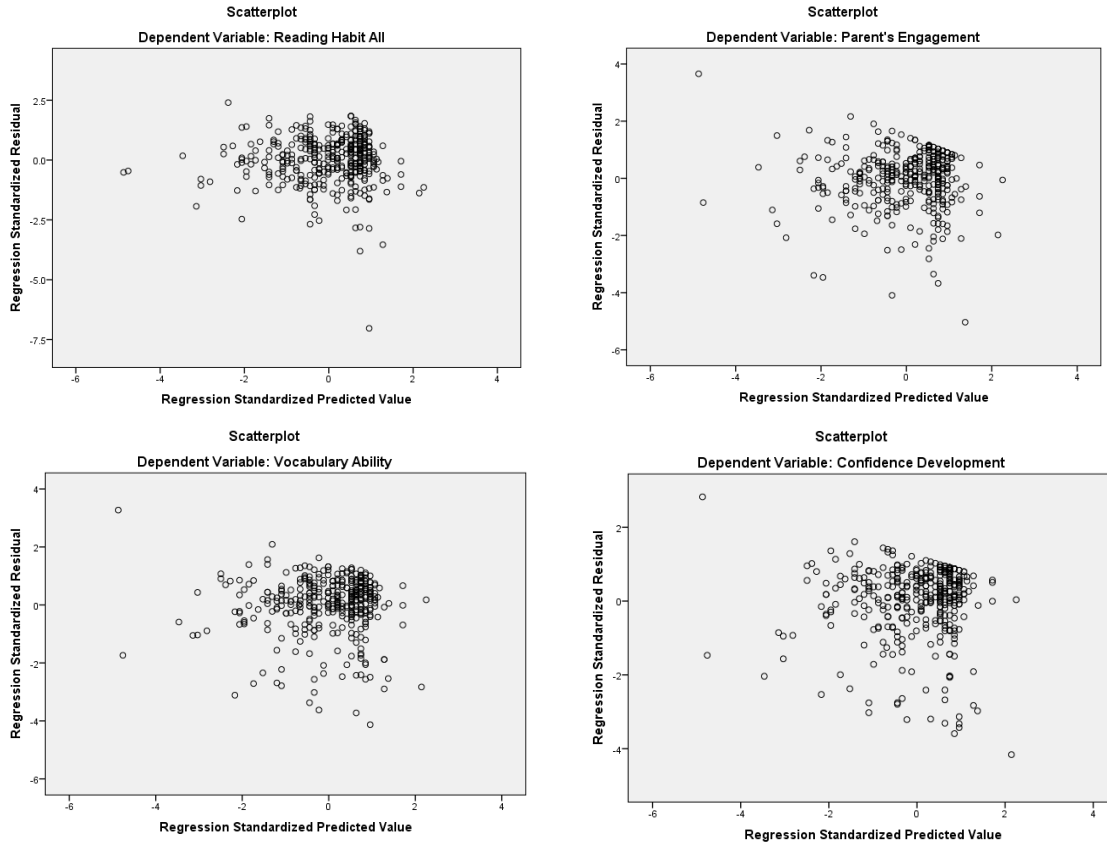
1. Linearity – The predictor variables in the regression have a straight-line relationship with the outcome variables. The regression assumption analysis demonstrates the monotonic nature of dependency (the prevailing linear character of dependency). Thus, the linearity of the RSP towards reading habits, parent engagement, vocabulary ability, and the child's confidence development is assumed.

Table 4.5.1.4: The quantile-quantile (Q-Q) linearity plot of the RSP towards reading habits, parent's engagement, vocabulary ability and child's confidence development.



2. Homoscedasticity - refers to whether the residuals are equally distributed or whether they tend to bunch together at some values and, at other values, spread far apart. The regression assumption analysis demonstrates this through the scatterplot of the residuals, ideally where the plot does not have an obvious pattern (to which the points are equally distributed above and below zero on the X axis and to the left and right of zero on the Y axis). Thus, the homoscedasticity of the RSP towards reading habits, parent engagement, vocabulary ability, and the child's confidence development is assumed.

Table 4.5.1.4: The quantile-quantile (Q-Q) homoscedasticity plot of the RSP towards reading habits, parent's engagement, vocabulary ability and child's confidence development.



3. Multicollinearity – refers to the condition where the predictor variables are highly correlated with each other. All the VIF values are below 10, indicating that the assumption of multicollinearity is met.

Table 4.5.1.4: Coefficients of linearity RSP towards reading habits, parent's engagement, vocabulary ability and child's confidence development

	Standardized Coefficients		Sig.	Collinearity Statistics	
	Beta	t		Tolerance	VIF
RSP ►					
Reading Habit	.840	30.286	.000	1.000	1.000

Table 4.5.1.4: Coefficients of linearity RSP towards reading habits, parent's engagement, vocabulary ability and child's confidence development

	Standardized Coefficients		Sig.	Tolerance	Collinearity Statistics
	Beta	t			VIF
Parent's Engagement	.502	11.368	.000	1.000	1.000
Vocabulary Ability	.355	7.430	.000	1.000	1.000
Confidence Development	.332	6.884	.000	1.000	1.000
RSP Execution	.889	37.938	.000	1.000	1.000
RSP Intervention	.293	5.988	.000	1.000	1.000
► Participation					
RSP Execution	-.146	-2.894	.004	1.000	1.000
RSP Intervention	.013	.253	.800	1.000	1.000

4. Normality – The data must be normally distributed to perform the regression analysis. The data is said to be normally distributed, where the data points will be close to the diagonal line of the Q-Q plots. Alternatively, the Shapiro-Wilk test is used for medium sample datasets, i.e., up to 2000 samples. All variables demonstrated significant results ($p < 0.05$), which suggests that the data is normally distributed. Thus, the normality data of the RSP towards reading habits, parent engagement, vocabulary ability, and the child's confidence development are assumed.

Table 4.5.1.4: Shapiro-Wilk test of normality of RSP towards reading habits, parent's engagement, vocabulary ability and child's confidence development

	Statistic	df	Sig.
Reading Habit	.930	385	.000
Parent's Engagement	.922	385	.000
Vocabulary Ability	.897	385	.000
Confidence Development	.865	385	.000
RSP Execution	.874	385	.000
RSP Intervention	.483	385	.000

4.3.4 Outlier of the data

The outliers of the data are identified, which is an important step in data analysis as they can have a significant impact on the results of statistical analyses. Outliers refer to the data that contains extreme values that are significantly different from most of

the data. Initially, the graphics of boxplots (the distribution of a dataset) were used to identify the outliers. There are 15 out of 385 usable data points statistically caught as outliers. Those outliers opt to be treated using trimming and median imputation methods. A series of regression analyses was experimented with using two different datasets (i.e., with outliers and without outliers). Apparently, the experimental analysis shows a minimal, insignificant difference between those identified as outliers in the dataset. Therefore, this study decided to keep those outliers for further hypothetical testing and analysis.

4.4 HYPOTHETICAL ANALYSIS

4.4.1 RQ1: What are the impacts of RSP in nurturing reading habits, based on demographic factors?

Ho: There is no impact of RSP in nurturing reading habits, based on demographic factors.

H1: There are positive impacts of RSP in nurturing reading habits, based on demographic factors.

In general, the Reading Seed Programme (RSP) is statistically significant in predicting reading habits [$t(1,383) = 46.683, p = 0.000$ ($p < 0.05$)]. This result reveals a positive effect of the RSP on reading habits. Moreover, the $R^2 = 0.851$ indicates that the model (RSP) explains 85.1% of the variance in reading habits. The RSP also significantly predicts reading habits with a large effect size [$f^2 = 5.711, \beta = 0.922$].

In specific, *ceteris paribus* (all other things being equal), the regression analyses according to the individual demographic characters show that the RSP significantly predicts reading habits based on the demographic factor:

1. **Respondents' age:** those who have not specified their age [$t(1,14) = 9.971, p = 0.000$ ($p < 0.05$), $\beta = 0.936, f^2 = 7.130, R^2 = 0.877$], followed by those who are age 41 – 50 [$t(1,30) = 13.583, p = 0.000$ ($p < 0.05$), $\beta = 0.927, f^2 = 6.143, R^2 = 0.860$], age 20 - 30 [$t(1,80) = 22.066, p = 0.000$ ($p < 0.05$), $\beta = 0.927, f^2 = 6.092, R^2 = 0.589$], and those who are age 31 - 40 [$t(1,253) = 37.536, p =$

0.000 ($p < 0.05$), $\beta = 0.921$, $f^2 = 5.579$, $R^2 = 0.848$] are found to significantly predict reading habits by the RSP based on demographic factors.

2. **Childs' age:** those who have not specified their child's age [$t(1,4) = 6.262$, $p = 0.000$ ($p < 0.05$), $\beta = 0.953$, $f^2 = 9.732$, $R^2 = 0.907$] followed by child who age 4 – 6 [$t(1,120) = 28.879$, $p = 0.000$ ($p < 0.05$), $\beta = 0.935$, $f^2 = 6.937$, $R^2 = 0.874$], 0 – 3 [$t(1,245) = 35.711$, $p = 0.000$ ($p < 0.05$), $\beta = 0.916$, $f^2 = 5.211$, $R^2 = 0.839$] and those more than 7 years old [$t(1,8) = 5.845$, $p = 0.000$ ($p < 0.05$), $\beta = 0.900$, $f^2 = 4.263$, $R^2 = 0.810$] are found to significantly predict reading habits by the RSP based on demographic factors.
3. **Respondent's gender:** Female [$t(1,324) = 16.573$, $p = 0.000$ ($p < 0.05$), $\beta = 0.924$, $f^2 = 4.814$, $R^2 = 0.828$], followed by male [$t(1,57) = 16.573$, $p = 0.000$ ($p < 0.05$), $\beta = 0.910$, $f^2 = 4.814$, $R^2 = 0.828$] are found to significantly predict reading habits by the RSP based on demographic factors.
4. **Childs' gender:** Female [$t(1,182) = 36.432$, $p = 0.000$ ($p < 0.05$), $\beta = 0.938$, $f^2 = 7.264$, $R^2 = 0.879$], followed by male [$t(1,199) = 30.049$, $p = 0.000$ ($p < 0.05$), $\beta = 0.905$, $f^2 = 4.525$, $R^2 = 0.819$] are found to significantly predict reading habits by the RSP based on demographic factors.
5. **Ethnicity:** Bidayuh [$t(1,34) = 22.411$, $p = 0.000$ ($p < 0.05$), $\beta = 0.968$, $f^2 = 14.873$, $R^2 = 0.937$], followed by Malay [$t(1,194) = 35.214$, $p = 0.000$ ($p < 0.05$), $\beta = 0.930$, $f^2 = 6.407$, $R^2 = 0.865$], Melanau [$t(1,14) = 7.676$, $p = 0.000$ ($p < 0.05$), $\beta = 0.899$, $f^2 = 4.208$, $R^2 = 0.808$], Chinese [$t(1,114) = 21.653$, $p = 0.000$ ($p < 0.05$), $\beta = 0.897$, $f^2 = 4.102$, $R^2 = 0.804$] and Iban [$t(1,13) = 5.397$, $p = 0.000$ ($p < 0.05$), $\beta = 0.832$, $f^2 = 2.236$, $R^2 = 0.691$] are found to significantly predict reading habits by the RSP based on demographic factors. Apparently, Orang Ulu was found not to be statistically significant [$t(1,2) = 0.984$, $p = 0.429$ ($p > 0.05$), $\beta = 0.571$, $f^2 = 0.484$, $R^2 = 0.326$] in predicting reading habits by the RSP based on the demographic factors.

6. **Socio-economic status:** Household income less than RM1000 [$t(1,38) = 18.653, p = 0.000 (p < 0.05), \beta = 0.949, f^2 = 9.204, R^2 = 0.902$], followed by household income above RM8500 [$t(1,38) = 14.961, p = 0.000 (p < 0.05), \beta = 0.925, f^2 = 5.897, R^2 = 0.855$], between RM4000 – RM8500 [$t(1,134) = 27.154, p = 0.000 (p < 0.05), \beta = 0.920, f^2 = 5.494, R^2 = 0.846$], and between RM1000 – RM3999 [$t(1,167) = 27.830, p = 0.000 (p < 0.05), \beta = 0.907, f^2 = 4.650, R^2 = 0.823$] are found to significantly predict reading habits by the RSP based on demographic factors.
7. **Current location:** Participants who currently reside in Kuching [$t(1,270) = 41.394, p = 0.000 (p < 0.05), \beta = 0.929, f^2 = 6.353, R^2 = 0.864$], followed by those who reside outside Kuching [$t(1,111) = 21.199, p = 0.000 (p < 0.05), \beta = 0.896, f^2 = 4.051, R^2 = 0.802$] are found to significantly predict reading habits by the RSP based on demographic factors.
8. **Respondents' place of birth:** Those who was not born in Kuching [$t(1,169) = 34.452, p = 0.000 (p < 0.05), \beta = 0.936, f^2 = 7.000, R^2 = 0.875$], followed by those who was born in Kuching [$t(1,211) = 31.936, p = 0.000 (p < 0.05), \beta = 0.910, f^2 = 4.848, R^2 = 0.829$] are found to significantly predict reading habits by the RSP based on demographic factors.
9. **Child's place of birth:** Government hospital [$t(1,305) = 42.448, p = 0.000 (p < 0.05), \beta = 0.925, f^2 = 5.897, R^2 = 0.855$], followed by private hospital [$t(1,74) = 18.806, p = 0.000 (p < 0.05), \beta = 0.909, f^2 = 4.780, R^2 = 0.827$] are found to significantly predict reading habits by the RSP based on demographic factors.
10. **Marital status:** married [$t(1,378) = 46.847, p = 0.000 (p < 0.05), \beta = 0.924, f^2 = 5.803, R^2 = 0.853$] is found to significantly predict reading habits by the RSP based on demographic factors. Apparently, single parenthood was not statistically significant [$t(1,3) = 1.440, p = 0.245 (p > 0.05), \beta = 0.639, f^2 =$

0.692, $R^2 = 0.409$] in predicting reading habits by the RSP based on the demographic factors.

11. **Employment:** Self-employed / small business [$t(1,26) = 14.705, p = 0.000$ ($p < 0.05$), $\beta = 0.945, f^2 = 8.346, R^2 = 0.893$], followed by unemployed / housewife [$t(1,80) = 25.399, p = 0.000$ ($p < 0.05$), $\beta = 0.943, f^2 = 8.091, R^2 = 0.890$], public sector [$t(1,184) = 29.880, p = 0.000$ ($p < 0.05$), $\beta = 0.911, f^2 = 4.848, R^2 = 0.829$], and private sector [$t(1,85) = 18.718, p = 0.000$ ($p < 0.05$), $\beta = 0.897, f^2 = 4.128, R^2 = 0.805$] are found to significantly predict reading habits by the RSP based on demographic factors.

12. **Highest qualification:** Primary school [$t(1,3) = 8.076, p = 0.000$ ($p < 0.05$), $\beta = 0.978, f^2 = 21.727, R^2 = 0.956$], followed by secondary school [$t(1,79) = 22.023, p = 0.000$ ($p < 0.05$), $\beta = 0.927, f^2 = 6.143, R^2 = 0.860$], university degree [$t(1,181) = 31.280, p = 0.000$ ($p < 0.05$), $\beta = 0.919, f^2 = 5.410, R^2 = 0.844$], diploma [$t(1,83) = 21.062, p = 0.000$ ($p < 0.05$), $\beta = 0.918, f^2 = 5.329, R^2 = 0.842$], and certificate [$t(1,29) = 12.157, p = 0.000$ ($p < 0.05$), $\beta = 0.914, f^2 = 5.098, R^2 = 0.836$] are found to significantly predict reading habits by the RSP based on demographic factors.

13. **Date/year received the RSP kits:** 2020 – 2022 [$t(1,311) = 43.130, p = 0.000$ ($p < 0.05$), $\beta = 0.926, f^2 = 5.993, R^2 = 0.857$], followed by 2017 - 2019 [$t(1,67) = 18.498, p = 0.000$ ($p < 0.05$), $\beta = 0.914, f^2 = 5.098, R^2 = 0.836$] are found to significantly predict reading habits by the RSP based on demographic factors. Apparently, those who have not specified the date/year were found not statistically significant [$t(1,1) = 0.637, p = 0.639$ ($p > 0.05$), $\beta = 0.537, f^2 = 0.406, R^2 = 0.289$] in predicting reading habits by the RSP based on the demographic factors.

14. **RSP kits obtained from:** health clinic / government polyclinic [$t(1,24) = 15.649, p = 0.000$ ($p < 0.05$), $\beta = 0.954, f^2 = 10.236, R^2 = 0.911$], followed by

PUSTAKA Negeri Sarawak [$t(1,339) = 42.010, p = 0.000 (p < 0.05), \beta = 0.916, f^2 = 5.211, R^2 = 0.839$], and others sources [$t(1,16) = 8.946, p = 0.000 (p < 0.05), \beta = 0.913, f^2 = 4.988, R^2 = 0.833$] are found to significantly predict reading habits by the RSP based on demographic factors.

15. **RSP joining mode:** Others i.e. (friend's recommendation) [$t(1,2) = 7.565, p = 0.000 (p < 0.05), \beta = 0.983, f^2 = 28.412, R^2 = 0.966$], followed by voluntary [$t(1,272) = 40.000, p = 0.000 (p < 0.05), \beta = 0.924, f^2 = 5.897, R^2 = 0.855$], invited [$t(1,75) = 19.974, p = 0.000 (p < 0.05), \beta = 0.917, f^2 = 5.329, R^2 = 0.842$], and selected [$t(1,26) = 11.047, p = 0.000 (p < 0.05), \beta = 0.908, f^2 = 4.682, R^2 = 0.824$] are found to significantly predict reading habits by the RSP based on demographic factors.

16. **Other siblings who used the RSP kits:** Children who have 1 and/or more siblings [$t(1,143) = 35.856, p = 0.000 (p < 0.05), \beta = 0.949, f^2 = 9.000, R^2 = 0.900$], followed by no siblings [$t(1,238) = 35.144, p = 0.000 (p < 0.05), \beta = 0.916, f^2 = 5.173, R^2 = 0.838$] are found to significantly predict reading habits by the RSP based on demographic factors.

Particularly, the regression analyses show that RSP was found to be statistically significant in predicting reading habits based on demographic factors [$t(17,367) = 48.137, p = 0.000 (p < 0.05), \beta = 0.925, f^2 = 6.813, R^2 = 0.872$], especially the mode of joining the RSP [$t(17,367) = 2.649, p = 0.008 (p < 0.05), \beta = 0.055$] and the number of siblings who used the RSP kits [$t(17,367) = 5.594, p = 0.000 (p < 0.05), \beta = 0.107$]. Therefore, the hypothesis (H1: There are positive impacts of RSP on nurturing reading habits based on demographic factors) is **PARTIALLY ACCEPTED**.

Table 4.4.1: Regression test RSP and reading habit based on demographic

	R^2	f^2	df	β	t	Sig	*rank
RSP ► Reading habit	.851	5.711	1,383	.922	46.683	.000	
RSP ► Reading habit	.872	6.813	17,367	.925	48.137	.000	
► Respondents' Age				.026	1.347	.179	
► Child' age				.021	1.065	.288	
► Respondents' gender				-.012	-.603	.547	
► Child' gender				.015	.810	.418	
► Ethnicity				.005	.270	.787	
► Socio-economic Status				.003	.115	.908	
► Current Location				.022	1.132	.258	
► Respondents' Place of Birth				.025	1.236	.217	
► Child Place of Birth				-.025	-1.253	.211	
► Marital Status				-.002	-.105	.917	
► Employment				-.034	-1.556	.121	
► Highest Qualification				-.019	-.770	.442	
► Date/year received kits				-.018	-.855	.393	
► RSP kits obtained from				.008	.439	.661	
► RSP Joining				.055	2.649	.008	2
► Siblings used the RSP kits				.107	5.594	.000	1
<u>Respondents' Age</u>							
20 - 30	.859	6.092	1,80	.927	22.066	.000	3
31 - 40	.848	5.579	1,253	.921	37.536	.000	4
41 - 50	.860	6.143	1,30	.927	13.583	.000	2
Not Specified	.877	7.130	1,14	.936	9.971	.000	1
<u>Child' age</u>							
0 - 3 yrs old	.839	5.211	1,245	.916	35.711	.000	3
4 - 6 yrs old	.874	6.937	1,120	.935	28.879	.000	2
>= 7 yrs old	.810	4.263	1,8	.900	5.845	.000	4
Not specified	.907	9.753	1,4	.953	6.262	.003	1
<u>Respondents' gender</u>							
Male	.828	4.814	1,57	.910	16.573	.000	2
Female	.853	5.803	1,324	.924	43.426	.000	1
<u>Child's gender</u>							
Male	.819	4.525	1,199	.905	30.049	.000	2
Female	.879	7.264	1,182	.938	36.432	.000	1
<u>Ethnicity</u>							
Bidayuh	.937	14.873	1,34	.968	22.411	.000	1
Chinese	.804	4.102	1,114	.897	21.653	.000	4
Iban	.691	2.236	1,13	.832	5.397	.000	5
Orang Ulu	.326	0.484	1,2	.571	.984	.429	
Malay	.865	6.407	1,194	.930	35.214	.000	2
Melanau	.808	4.208	1,14	.899	7.676	.000	3
Not specified	1.000	.	1,0	1.000	.	.	

Table 4.4.1: Regression test RSP and reading habit based on demographic

	R^2	f^2	df	β	t	Sig	*rank
<u>Socio-economic Status</u>							
Less than RM1000	.902	9.204	1,38	.949	18.653	.000	1
RM1000 - RM3999	.823	4.650	1,167	.907	27.830	.000	4
RM4000 - RM8500	.846	5.494	1,134	.920	27.154	.000	3
Above RM8500	.855	5.897	1,38	.925	14.961	.000	2
<u>Current Location</u>							
Kuching	.864	6.353	1,270	.929	41.394	.000	1
Others	.802	4.051	1,111	.896	21.199	.000	2
<u>Respondents' Place of Birth</u>							
Kuching	.829	4.848	1,211	.910	31.936	.000	2
Others	.875	7.000	1,169	.936	34.452	.000	1
<u>Child Place of Birth</u>							
Government Hospital	.855	5.897	1,305	.925	42.448	.000	1
Private Hospital	.827	4.780	1,74	.909	18.806	.000	2
Others	1.000	.	1,0	1.000	.	.	.
<u>Marital Status</u>							
Married	.853	5.803	1,378	.924	46.847	.000	1
Single Parent	.409	0.692	1,3	.639	1.440	.245	
<u>Employment</u>							
Public Sector	.829	4.848	1,184	.911	29.880	.000	3
Private Sector	.805	4.128	1,85	.897	18.718	.000	4
Self-employed / Small Business	.893	8.346	1,26	.945	14.705	.000	1
Unemployed / Housewife	.890	8.091	1,80	.943	25.399	.000	2
Not specified	1.000	.	1,0	1.000	.	.	.
<u>Highest Qualification</u>							
University Degree	.844	5.410	1,181	.919	31.280	.000	3
Diploma	.842	5.329	1,83	.918	21.062	.000	4
Certificate	.836	5.098	1,29	.914	12.157	.000	5
Secondary School	.860	6.143	1,79	.927	22.023	.000	2
Primary School	.956	21.727	1,3	.978	8.076	.004	1
<u>Date/year received kits</u>							
2017-2019	.836	5.098	1,67	.914	18.498	.000	2
2020-2022	.857	5.993	1,311	.926	43.130	.000	1
Not specified	.289	0.406	1,1	.537	.637	.639	
<u>RSP kits obtained from:</u>							
Health Clinic / Government Polyclinic	.911	10.236	1,24	.954	15.649	.000	1
PUSTAKA Negeri Sarawak	.839	5.211	1,339	.916	42.010	.000	2
Others	.833	4.988	1,16	.913	8.946	.000	3
<u>RSP Joining</u>							
Voluntary	.855	5.897	1,272	.924	40.000	.000	2
Invited	.842	5.329	1,75	.917	19.974	.000	3
Selected	.824	4.682	1,26	.908	11.047	.000	4
Compulsory	1.000	.	1,0	1.000	.	.	.
Others	.966	28.412	1,2	.983	7.565	.017	1

Table 4.4.1: Regression test RSP and reading habit based on demographic

	R^2	f^2	df	β	t	Sig	*rank
Siblings used the RSP kits							
No sibling	.838	5.173	1,238	.916	35.144	.000	2
1 and more siblings	.900	9.000	1,143	.949	35.856	.000	1

** R^2 : <0.02 (very weak), $0.02 \leq R^2 < 0.13$ (weak), $0.13 \leq R^2 < 0.26$ (moderate), ≥ 0.26 (substantial)

** f^2 : ≥ 0.02 (small), ≥ 0.15 (medium), ≥ 0.35 (large)

4.4.2 RQ2: What are the impacts in getting parents' engagement in RSP, based on demographic factors?

Ho: There is no impact in getting parents' engagement in RSP, based on demographic factors.

H2: There are positive impacts in getting parents' engagement in RSP, based on demographic factors.

In general, the Reading Seed Programme (RSP) is statistically significant in predicting parents' engagement [$t(1,383) = 11.240, p = 0.000$ ($p < 0.05$)]. This result reveals a positive effect of the RSP on parents' engagement. Moreover, the $R^2 = 0.248$ indicates that the model (RSP) explains 24.8% of the variance in parents' engagement. The RSP also significantly predicts parents' engagement with a medium effect size [$f^2 = 0.330, \beta = 0.498$].

In specific, *ceteris paribus* (all other things being equal), the regression analyses according to the individual demographic characters show that the RSP significantly predicts parent's engagement based on the demographic factor:

1. **Respondents' age:** Those who have not specified their age [$t(1,14) = 4.004, p = 0.001$ ($p < 0.05$), $\beta = 0.731, f^2 = 1.146, R^2 = 0.534$], followed by those who are age 41 – 50 [$t(1,30) = 4.225, p = 0.000$ ($p < 0.05$), $\beta = 0.611, f^2 = 0.595, R^2 = 0.373$], age 20 - 30 [$t(1,80) = 5.583, p = 0.000$ ($p < 0.05$), $\beta = 0.530, f^2 = 0.389, R^2 = 0.280$], and those who are age 31 - 40 [$t(1,253) = 8.240, p = 0.000$ ($p < 0.05$), $\beta = 0.460, f^2 = 0.269, R^2 = 0.212$] are found to significantly predict parents' engagement by the RSP based on demographic factors.

2. **Childs' age:** Child's who are age 0 – 3 years old [$t(1,245) = 10.380, p = 0.000$ ($p < 0.05$), $\beta = 0.553, f^2 = 0.439, R^2 = 0.305$] and followed by child who age 4 – 6 [$t(1,120) = 4.543, p = 0.000$ ($p < 0.05$), $\beta = 0.383, f^2 = 0.172, R^2 = 0.147$] are found to significantly predict parents' engagement by the RSP based on demographic factors.
3. **Respondent's gender:** Female [$t(1,324) = 10.693, p = 0.000$ ($p < 0.05$), $\beta = 0.511, f^2 = 0.353, R^2 = 0.261$], followed by male [$t(1,57) = 3.238, p = 0.000$ ($p < 0.05$), $\beta = 0.394, f^2 = 0.183, R^2 = 0.155$] are found to significantly predict parents' engagement by the RSP based on demographic factors.
4. **Childs' gender:** Male [$t(1,199) = 9.999, p = 0.000$ ($p < 0.05$), $\beta = 0.578, f^2 = 0.502, R^2 = 0.334$], followed by female [$t(1,182) = 6.419, p = 0.000$ ($p < 0.05$), $\beta = 0.430, f^2 = 0.227, R^2 = 0.185$] are found to significantly predict parents' engagement by the RSP based on demographic factors.
5. **Ethnicity:** Bidayuh [$t(1,34) = 5.056, p = 0.000$ ($p < 0.05$), $\beta = 0.655, f^2 = 0.751, R^2 = 0.429$], followed by Iban [$t(1,13) = 2.861, p = 0.013$ ($p < 0.05$), $\beta = 0.622, f^2 = 0.629, R^2 = 0.386$], Melanau [$t(1,14) = 2.397, p = 0.031$ ($p < 0.05$), $\beta = 0.539, f^2 = 0.410, R^2 = 0.291$], Malay [$t(1,194) = 8.706, p = 0.000$ ($p < 0.05$), $\beta = 0.530, f^2 = 0.391, R^2 = 0.281$] and Chinese [$t(1,114) = 4.653, p = 0.000$ ($p < 0.05$), $\beta = 0.400, f^2 = 0.190, R^2 = 0.160$] are found to significantly predict parents' engagement by the RSP based on demographic factors. Apparently, Orang Ulu was found not to be statistically significant [$t(1,2) = 0.369, p = 0.748$ ($p > 0.05$), $\beta = 0.252, f^2 = 0.068, R^2 = 0.064$] in predicting parents' engagement by the RSP based on the demographic factors.
6. **Socio-economic status:** household income above RM8500 [$t(1,38) = 5.720, p = 0.000$ ($p < 0.05$), $\beta = 0.680, f^2 = 0.862, R^2 = 0.463$], followed by household income less than RM1000 [$t(1,38) = 18.653, p = 0.000$ ($p < 0.05$), $\beta = 0.949, f^2 = 9.204, R^2 = 0.902$], between RM1000 – RM3999 [$t(1,167) = 8.155, p =$

0.000 ($p < 0.05$), $\beta = 0.534$, $f^2 = 0.399$, $R^2 = 0.285$] and between RM4000 – RM8500 [$t(1,134) = 4.626$, $p = 0.000$ ($p < 0.05$), $\beta = 0.371$, $f^2 = 0.160$, $R^2 = 0.138$] are found to significantly predict parents' engagement by the RSP based on demographic factors.

7. **Current location:** outside Kuching [$t(1,111) = 6.172$, $p = 0.000$ ($p < 0.05$), $\beta = 0.505$, $f^2 = 0.342$, $R^2 = 0.255$] followed by Kuching [$t(1,270) = 9.359$, $p = 0.000$ ($p < 0.05$), $\beta = 0.495$, $f^2 = 0.325$, $R^2 = 0.245$], are found to significantly predict parents' engagement by the RSP based on demographic factors.
8. **Respondents' place of birth:** Those who was not born in Kuching [$t(1,169) = 8.349$, $p = 0.000$ ($p < 0.05$), $\beta = 0.540$, $f^2 = 0.412$, $R^2 = 0.292$], followed by those who was born in Kuching [$t(1,211) = 7.488$, $p = 0.000$ ($p < 0.05$), $\beta = 0.458$, $f^2 = 0.266$, $R^2 = 0.292$] are found to significantly predict parents' engagement by the RSP based on demographic factors.
9. **Child's place of birth:** Government hospital [$t(1,305) = 10.108$, $p = 0.000$ ($p < 0.05$), $\beta = 0.501$, $f^2 = 0.335$, $R^2 = 0.251$], followed by private hospital [$t(1,74) = 4.753$, $p = 0.000$ ($p < 0.05$), $\beta = 0.484$, $f^2 = 0.305$, $R^2 = 0.234$] are found to significantly predict parents' engagement by the RSP based on demographic factors.
10. **Marital status:** married [$t(1,378) = 11.173$, $p = 0.000$ ($p < 0.05$), $\beta = 0.498$, $f^2 = 0.330$, $R^2 = 0.248$] is found significantly predicts parents' engagement by the RSP based on the demographic factors. Apparently, single parent was found not statistically significant [$t(1,3) = 0.084$, $p = 0.938$ ($p > 0.05$), $\beta = 0.049$, $f^2 = 0.002$, $R^2 = 0.002$] are found to significantly predict parents' engagement by the RSP based on demographic factors.
11. **Employment:** Self-employed / small business [$t(1,26) = 5.230$, $p = 0.000$ ($p < 0.05$), $\beta = 0.716$, $f^2 = 1.053$, $R^2 = 0.513$], followed by private sector [$t(1,85)$

= 6.479, $p = 0.000$ ($p < 0.05$), $\beta = 0.575$, $f^2 = 0.495$, $R^2 = 0.331$], public sector [$t(1,184) = 7.964$, $p = 0.000$ ($p < 0.05$), $\beta = 0.506$, $f^2 = 0.344$, $R^2 = 0.256$], and unemployed / housewife [$t(1,80) = 3.575$, $p = 0.000$ ($p < 0.05$), $\beta = 0.371$, $f^2 = 0.160$, $R^2 = 0.138$] are found to significantly predict parents' engagement by the RSP based on demographic factors.

12. **Highest qualification:** Certificate [$t(1,29) = 4.322$, $p = 0.000$ ($p < 0.05$), $\beta = 0.626$, $f^2 = 0.645$, $R^2 = 0.392$], followed by secondary school [$t(1,79) = 5.273$, $p = 0.000$ ($p < 0.05$), $\beta = 0.510$, $f^2 = 0.351$, $R^2 = 0.260$], diploma [$t(1,83) = 4.894$, $p = 0.000$ ($p < 0.05$), $\beta = 0.473$, $f^2 = 0.289$, $R^2 = 0.224$], and university degree [$t(1,181) = 7.051$, $p = 0.000$ ($p < 0.05$), $\beta = 0.464$, $f^2 = 0.276$, $R^2 = 0.216$] are found to significantly predict parents' engagement by the RSP based on demographic factors. Apparently, primary school was found not to be statistically significant [$t(1,3) = 3.014$, $p = 0.057$ ($p > 0.05$), $\beta = 0.867$, $f^2 = 3.032$, $R^2 = 0.752$] in predicting parents' engagement by the RSP based on the demographic factors.

13. **Date/year received the RSP kits:** 2017 - 2019 [$t(1,67) = 7.936$, $p = 0.000$ ($p < 0.05$), $\beta = 0.696$, $f^2 = 0.942$, $R^2 = 0.485$], followed by 2020 – 2022 [$t(1,311) = 9.228$, $p = 0.000$ ($p < 0.05$), $\beta = 0.464$, $f^2 = 0.274$, $R^2 = 0.215$] are found to significantly predict parents' engagement by the RSP based on demographic factors. Apparently, those who are not specified the date/year was found not to be statistically significant [$t(1,1) = 1.399$, $p = 0.395$ ($p > 0.05$), $\beta = 0.814$, $f^2 = 0.959$, $R^2 = 0.662$] in predicting parents' engagement by the RSP based on the demographic factors.

14. **RSP kits obtained from:** health clinic / government polyclinic [$t(1,24) = 5.981$, $p = 0.000$ ($p < 0.05$), $\beta = 0.774$, $f^2 = 1.488$, $R^2 = 0.598$], followed by PUSTAKA Negeri Sarawak [$t(1,339) = 11.579$, $p = 0.000$ ($p < 0.05$), $\beta = 0.532$, $f^2 = 0.395$, $R^2 = 0.283$], are found to significantly predict parents' engagement by the RSP based on demographic factors. Apparently, other

sources were found not to be statistically significant [$t(1,16) = -0.640, p = 0.0531$ ($p > 0.05$), $\beta = -0.158, f^2 = 0.026, R^2 = 0.025$] in predicting parents' engagement by the RSP based on the demographic factors.

15. **RSP joining mode:** Selected [$t(1,26) = 5.110, p = 0.000$ ($p < 0.05$), $\beta = 0.708, f^2 = 1.004, R^2 = 0.501$], followed by voluntary [$t(1,272) = 10.663, p = 0.000$ ($p < 0.05$), $\beta = 0.543, f^2 = 0.418, R^2 = 0.295$] and invited [$t(1,75) = 4.261, p = 0.000$ ($p < 0.05$), $\beta = 0.441, f^2 = 0.242, R^2 = 0.195$] are found to significantly predict parents' engagement by the RSP based on demographic factors. Apparently, other mode joining the RSP were found not to be statistically significant [$t(1,2) = -0.524, p = 0.653$ ($p > 0.05$), $\beta = -0.347, f^2 = 0.138, R^2 = 0.121$] in predicting parents' engagement by the RSP based on the demographic factors.

16. **Other siblings who used the RSP kits:** 1 and more siblings [$t(1,143) = 11.850, p = 0.000$ ($p < 0.05$), $\beta = 0.704, f^2 = 0.980, R^2 = 0.495$], followed by no siblings [$t(1,238) = 6.149, p = 0.000$ ($p < 0.05$), $\beta = 0.370, f^2 = 0.159, R^2 = 0.137$] are found to significantly predict parents' engagement by the RSP based on demographic factors.

Particularly, the regression analyses show that RSP was found to be statistically significant in predicting parents' engagement based on the demographic factors [$t(17,367) = 11.291, p = 0.000$ ($p < 0.05$), $\beta = 0.510, f^2 = 0.416, R^2 = 0.294$], especially the mode of joining the RSP [$t(17,367) = 1.850, p = 0.045$ ($p < 0.05$), $\beta = 0.090$] and the number of siblings who used the RSP kits [$t(17,367) = 0.096$]. Therefore, the hypothesis (H2: There are positive impacts on getting parents' engagement in RSP based on demographic factors) is **PARTIALLY ACCEPTED**.

Table 4.4.2.: Regression test RSP and parent's engagement based on demographic

	R^2	f^2	df	β	t	Sig	*rank
RSP ► Parent's engagement	.248	0.330	1,383	.498	11.240	.000	
RSP ► Parent's engagement	.294	0.416	17,367	.510	11.291	.000	
► Respondents' Age				-.018	-.396	.692	
► Child' age				.025	.532	.595	
► Respondents' gender				-.010	-.210	.834	
► Child' gender				.029	.644	.520	
► Ethnicity				-.072	-1.557	.120	
► Socio-economic Status				.023	.397	.692	
► Current Location				.046	.989	.323	
► Respondents' Place of Birth				.042	.900	.369	
► Child Place of Birth				.027	.565	.572	
► Marital Status				.040	.883	.378	
► Employment				.007	.133	.895	
► Highest Qualification				-.103	-1.796	.073	
► Date/year received kits				-.016	-.321	.748	
► RSP kits obtained from				.072	1.611	.108	
► RSP Joining				.090	1.850	.045	1
► Siblings used the RSP kits				.095	2.102	.036	2
<u>Respondents' Age</u>							
20 - 30	.280	0.389	1,80	.530	5.583	.000	3
31 - 40	.212	0.269	1,253	.460	8.240	.000	4
41 - 50	.373	0.595	1,30	.611	4.225	.000	2
Not Specified	.534	1.146	1,14	.731	4.004	.001	1
<u>Child' age</u>							
0 - 3 yrs old	.305	0.439	1,245	.553	10.380	.000	1
4 - 6 yrs old	.147	0.172	1,120	.383	4.543	.000	2
>= 7 yrs old	.159	0.189	1,8	.399	1.230	.254	
Not specified	.325	0.481	1,4	.570	1.389	.237	
<u>Respondents' gender</u>							
Male	.155	0.183	1,57	.394	3.238	.002	2
Female	.261	0.353	1,324	.511	10.693	.000	1
<u>Child's gender</u>							
Male	.334	0.502	1,199	.578	9.999	.000	1
Female	.185	0.227	1,182	.430	6.419	.000	2
<u>Ethnicity</u>							
Bidayuh	.429	0.751	1,34	.655	5.056	.000	1
Chinese	.160	0.190	1,114	.400	4.653	.000	5
Iban	.386	0.629	1,13	.622	2.861	.013	2
Orang Ulu	.064	0.068	1,2	.252	.369	.748	
Malay	.281	0.391	1,194	.530	8.706	.000	4
Melanau	.291	0.410	1,14	.539	2.397	.031	3
Not specified	1.000	.	1,0	1.000	.	.	

Table 4.4.2.: Regression test RSP and parent's engagement based on demographic

	R^2	f^2	df	β	t	Sig	*rank
<u>Socio-economic Status</u>							
Less than RM1000	.306	0.441	1,38	.553	4.089	.000	2
RM1000 - RM3999	.285	0.399	1,167	.534	8.155	.000	3
RM4000 - RM8500	.138	0.160	1,134	.371	4.626	.000	4
Above RM8500	.463	0.862	1,38	.680	5.720	.000	1
<u>Current Location</u>							
Kuching	.245	0.325	1,270	.495	9.359	.000	2
Others	.255	0.342	1,111	.505	6.172	.000	1
<u>Respondents' Place of Birth</u>							
Kuching	.210	0.266	1,211	.458	7.488	.000	2
Others	.292	0.412	1,169	.540	8.349	.000	1
<u>Child Place of Birth</u>							
Government Hospital	.251	0.335	1,305	.501	10.108	.000	1
Private Hospital	.234	0.305	1,74	.484	4.753	.000	2
Others	1.000	.	1,0	1.000	.	.	
<u>Marital Status</u>							
Married	.248	0.330	1,378	.498	11.173	.000	1
Single Parent	.002	0.002	1,3	.049	.084	.938	
<u>Employment</u>							
Public Sector	.256	0.344	1,184	.506	7.964	.000	3
Private Sector	.331	0.495	1,85	.575	6.479	.000	2
Self-employed / Small Business	.513	1.053	1,26	.716	5.230	.000	1
Unemployed / Housewife	.138	0.160	1,80	.371	3.575	.001	4
Not specified	1.000	.	1,0	1.000	.	.	
<u>Highest Qualification</u>							
University Degree	.216	0.276	1,181	.464	7.051	.000	4
Diploma	.224	0.289	1,83	.473	4.894	.000	3
Certificate	.392	0.645	1,29	.626	4.322	.000	1
Secondary School	.260	0.351	1,79	.510	5.273	.000	2
Primary School	.752	3.032	1,3	.867	3.014	.057	
<u>Date/year received kits</u>							
2017-2019	.485	0.942	1,67	.696	7.936	.000	1
2020-2022	.215	0.274	1,311	.464	9.228	.000	2
Not specified	.662	1.959	1,1	.814	1.399	.395	
<u>RSP kits obtained from:</u>							
Health Clinic / Government Polyclinic	.598	1.488	1,24	.774	5.981	.000	1
PUSTAKA Negeri Sarawak	.283	0.395	1,339	.532	11.579	.000	2
Others	.025	0.026	1,16	-.158	-.640	.531	
<u>RSP Joining</u>							
Voluntary	.295	0.418	1, 272	.543	10.663	.000	2
Invited	.195	0.242	1, 75	.441	4.261	.000	3
Selected	.501	1.004	1,26	.708	5.110	.000	1
Compulsory	1.000	.	1,0	-1.000	.	.	
Others	.121	0.138	1,2	-.347	-.524	.653	

Table 4.4.2.: Regression test RSP and parent's engagement based on demographic

	R^2	f^2	df	β	t	Sig	*rank
<u>Siblings used the RSP kits</u>							
No sibling	.137	0.159	1, 238	.370	6.149	.000	2
1 and more siblings	.495	0.980	1, 143	.704	11.850	.000	1

** $: R^2: <0.02$ (very weak), $0.02 \leq R^2 < 0.13$ (weak), $0.13 \leq R^2 < 0.26$ (moderate), ≥ 0.26 (substantial)

** $: f^2: \geq 0.02$ (small), ≥ 0.15 (medium), ≥ 0.35 (large)

4.4.3 RQ3: What is the impact of RSP in the child's vocabulary ability, based on demographic factors?

Ho: There is no impact of RSP in child's vocabulary ability, based on demographic factors.

H3: There are positive impacts of RSP in child's vocabulary ability based on demographic factors.

In general, the Reading Seed Programme (RSP) is statistically significant in predicting vocabulary ability [$t(1,383) = 8.656, p = 0.000$ ($p < 0.05$)]. This result reveals a positive effect of the RSP on vocabulary ability. Moreover, the $R^2 = 0.164$ indicates that the model (RSP) explains 16.4% of the variance in vocabulary ability. The RSP also significantly predicts vocabulary ability with a large effect size [$f^2 = 0.196, \beta = 0.404$].

In specific, *ceteris paribus* (all other things being equal), the regression analyses according to the individual demographic characters show that the RSP significantly predicts vocabulary ability based on the demographic factor:

1. **Respondents' age:** Those who are age between 20-30 [$t(1,80) = 6.329, p = 0.000$ ($p < 0.05$), $\beta = 0.578, f^2 = 0.502, R^2 = 0.334$], followed by those who are age 41 – 50 [$t(1,30) = 3.679, p = 0.001$ ($p < 0.05$), $\beta = 0.558, f^2 = 0.451, R^2 = 0.311$], not specify age [$t(1,14) = 2.501, p = 0.025$ ($p < 0.05$), $\beta = 0.556, f^2 = 0.447, R^2 = 0.309$], and those who are age between 31 - 40 [$t(1,253) = 5.206, p = 0.000$ ($p < 0.05$), $\beta = 0.311, f^2 = 0.107, R^2 = 0.097$] are found to significantly predict vocabulary ability by the RSP based on demographic factors.

2. **Childs' age:** Those who are age between 0 – 3 [$t(1,245) = 7.488, p = 0.000$ ($p < 0.05$), $\beta = 0.432, f^2 = 0.229, R^2 = 0.186$] and those age between 4 – 6 [$t(1,120) = 4.349, p = 0.000$ ($p < 0.05$), $\beta = 0.369, f^2 = 0.157, R^2 = 0.136$] are found to significantly predict vocabulary ability by the RSP based on demographic factors. Apparently, those children's ages more than 7 years old [$t(1,8) = 1.896, p = 0.095$ ($p > 0.05$), $\beta = 0.557, f^2 = 0.449, R^2 = 0.310$] and those who have not specified their age [$t(1,4) = 1.036, p = 0.359$ ($p > 0.05$), $\beta = 0.460, f^2 = 0.267, R^2 = 0.211$] were not statistically significant predict vocabulary ability by the RSP based on the demographic factors.
3. **Respondent's gender:** Female [$t(1,324) = 8.928, p = 0.000$ ($p < 0.05$), $\beta = 0.444, f^2 = 0.245, R^2 = 0.197$] is found to significantly predict vocabulary ability by the RSP based on demographic factors. Apparently, Male respondents [$t(1,57) = 1.201, p = 0.235$ ($p > 0.05$), $\beta = 0.157, f^2 = 0.026, R^2 = 0.025$] were found not to be statistically significant predictors of vocabulary ability by the RSP based on the demographic factors.
4. **Childs' gender:** Male [$t(1,199) = 6.669, p = 0.000$ ($p < 0.05$), $\beta = 0.427, f^2 = 0.224, R^2 = 0.183$], followed by Female [$t(1,182) = 5.800, p = 0.000$ ($p < 0.05$), $\beta = 0.395, f^2 = 0.182, R^2 = 0.156$] are found to significantly predict vocabulary ability by the RSP based on demographic factors.
5. **Ethnicity:** Iban [$t(1,13) = 8.335, p = 0.000$ ($p < 0.05$), $\beta = 0.918, f^2 = 5.329, R^2 = 0.842$], followed by Bidayuh [$t(1,34) = 3.918, p = 0.000$ ($p < 0.05$), $\beta = 0.558, f^2 = 0.451, R^2 = 0.311$], Malay [$t(1,194) = 7.083, p = 0.000$ ($p < 0.05$), $\beta = 0.453, f^2 = 0.258, R^2 = 0.205$] and Chinese [$t(1,114) = 2.570, p = 0.000$ ($p < 0.05$), $\beta = 0.234, f^2 = 0.058, R^2 = 0.055$] are found to significantly predict vocabulary ability by the RSP based on demographic factors. Apparently, Orang Ulu [$t(1,2) = 2.241, p = 0.154$ ($p > 0.05$), $\beta = 0.846, f^2 = 2.509, R^2 = 0.715$] and Melanau [$t(1,14) = 2.002, p = 0.065$ ($p > 0.05$), $\beta = 0.472, f^2 = 0.287, R^2 = 0.223$] were found not to be statistically significant predictors of

vocabulary ability by the RSP based on the demographic factors.

6. **Socio-economic status:** Household income less than RM1000 [$t(1,38) = 4.850, p = 0.000 (p < 0.05), \beta = 0.618, f^2 = 0.618, R^2 = 0.382$], followed by household income between RM1000 – RM3999 [$t(1,167) = 5.879, p = 0.000 (p < 0.05), \beta = 0.414, f^2 = 0.206, R^2 = 0.171$], above RM8500 [$t(1,38) = 2.558, p = 0.015 (p < 0.05), \beta = 0.383, f^2 = 0.172, R^2 = 0.147$], and between RM4000 – RM8500 [$t(1,134) = 2.902, p = 0.004 (p < 0.05), \beta = 0.243, f^2 = 0.063, R^2 = 0.059$] are found to significantly predict vocabulary ability by the RSP based on demographic factors.
7. **Current location:** Kuching [$t(1,270) = 7.470, p = 0.000 (p < 0.05), \beta = 0.414, f^2 = 0.206, R^2 = 0.171$], followed by outside Kuching [$t(1,111) = 4.365, p = 0.000 (p < 0.05), \beta = 0.383, f^2 = 0.172, R^2 = 0.147$] are found to significantly predict vocabulary ability by the RSP based on demographic factors.
8. **Respondents' place of birth:** Those who was not born in Kuching [$t(1,169) = 7.340, p = 0.000 (p < 0.05), \beta = 0.492, f^2 = 0.319, R^2 = 0.242$], followed by those who was born in Kuching [$t(1,211) = 4.811, p = 0.000 (p < 0.05), \beta = 0.314, f^2 = 0.110, R^2 = 0.099$] are found to significantly predict vocabulary ability by the RSP based on demographic factors.
9. **Child's place of birth:** Child's who was born in government hospital [$t(1,305) = 8.155, p = 0.000 (p < 0.05), \beta = 0.423, f^2 = 0.218, R^2 = 0.179$], followed by private hospital [$t(1,74) = 2.987, p = 0.004 (p < 0.05), \beta = 0.328, f^2 = 0.121, R^2 = 0.108$] are found to significantly predict vocabulary ability by the RSP based on demographic factors.
10. **Marital status:** Participants who are married [$t(1,378) = 8.821, p = 0.000 (p < 0.05), \beta = 0.413, f^2 = 0.206, R^2 = 0.171$] is found to significantly predict

vocabulary ability by the RSP based on demographic factors. Apparently, single parenthood was not statistically significant [$t(1,3) = -0.176, p = 0.871$ ($p > 0.05$), $\beta = -0.101, f^2 = 0.010, R^2 = 0.010$] in predicting vocabulary ability by the RSP based on the demographic factors.

11. **Employment:** Self-employed / small business [$t(1,26) = 4.435, p = 0.000$ ($p < 0.05$), $\beta = 0.656, f^2 = 0.757, R^2 = 0.431$], followed by public sector [$t(1,184) = 6.092, p = 0.000$ ($p < 0.05$), $\beta = 0.410, f^2 = 0.202, R^2 = 0.168$], unemployed / housewife [$t(1,80) = 3.761, p = 0.000$ ($p < 0.05$), $\beta = 0.388, f^2 = 0.176, R^2 = 0.150$], and private sector [$t(1,85) = 3.780, p = 0.000$ ($p < 0.05$), $\beta = 0.379, f^2 = 0.168, R^2 = 0.144$] are found to significantly predict vocabulary ability by the RSP based on demographic factors.

12. **Highest qualification:** Secondary school [$t(1,79) = 5.115, p = 0.000$ ($p < 0.05$), $\beta = 0.499, f^2 = 0.332, R^2 = 0.249$], followed by certificate [$t(1,29) = 2.784, p = 0.000$ ($p < 0.05$), $\beta = 0.459, f^2 = 0.267, R^2 = 0.211$], diploma [$t(1,83) = 4.219, p = 0.000$ ($p < 0.05$), $\beta = 0.420, f^2 = 0.215, R^2 = 0.177$], and university degree [$t(1,181) = 4.652, p = 0.000$ ($p < 0.05$), $\beta = 0.327, f^2 = 0.120, R^2 = 0.107$] are found to significantly predict vocabulary ability by the RSP based on demographic factors. Apparently, primary school [$t(1,3) = 1.035, p = 0.377$ ($p > 0.05$), $\beta = 0.513, f^2 = 0.357, R^2 = 0.263$] is not statistically significant in predicting vocabulary ability by the RSP based on the demographic factors.

13. **Date/year received the RSP kits:** 2017 - 2019 [$t(1,67) = 6.777, p = 0.000$ ($p < 0.05$), $\beta = 0.638, f^2 = 0.686, R^2 = 0.407$], followed by 2020 – 2022 [$t(1,311) = 7.496, p = 0.000$ ($p < 0.05$), $\beta = 0.391, f^2 = 0.181, R^2 = 0.153$] are found to significantly predict vocabulary ability by the RSP based on demographic factors. For those who are not specified, the date/year was found not statistically significant [$t(1,1) = -10.537, p = 0.060$ ($p > 0.05$), $\beta = -0.996, f^2 = 110.111, R^2 = 0.991$] in predicting vocabulary ability by the RSP based on the demographic factors.

14. **RSP kits obtained from:** Health clinic / government polyclinic [$t(1,24) = 2.831, p = 0.009 (p < 0.05), \beta = 0.500, f^2 = 0.333, R^2 = 0.250$], followed by PUSTAKA Negeri Sarawak [$t(1,339) = 8.964, p = 0.000 (p < 0.05), \beta = 0.438, f^2 = 0.238, R^2 = 0.192$] are found to significantly predict vocabulary ability by the RSP based on demographic factors. Apparently, other sources [$t(1,16) = -0.061, p = 0.952 (p > 0.05), \beta = -0.015, f^2 = 0.000, R^2 = 0.000$] were found not to be statistically significant predictors of vocabulary ability by the RSP based on the demographic factors.

15. **RSP joining mode:** Selected [$t(1,26) = 4.112, p = 0.000 (p < 0.05), \beta = 0.628, f^2 = 0.650, R^2 = 0.394$] followed by voluntary [$t(1,272) = 8.119, p = 0.000 (p < 0.05), \beta = 0.442, f^2 = 0.242, R^2 = 0.195$] and invited [$t(1,75) = 3.315, p = 0.000 (p < 0.05), \beta = 0.357, f^2 = 0.147, R^2 = 0.128$] are found to significantly predict vocabulary ability by the RSP based on demographic factors. Apparently, others, i.e., a friend's recommendation [$t(1,2) = -1.195, p = 0.355 (p > 0.05), \beta = -0.645, f^2 = 0.715, R^2 = 0.417$], were found not to be statistically significant predictors of vocabulary ability by the RSP based on the demographic factors.

16. **Other siblings who used the RSP kits:** 1 and more siblings [$t(1,143) = 8.526, p = 0.000 (p < 0.05), \beta = 0.581, f^2 = 0.508, R^2 = 0.337$], followed by no siblings [$t(1,238) = 5.038, p = 0.000 (p < 0.05), \beta = 0.310, f^2 = 0.106, R^2 = 0.096$] are found to significantly predict vocabulary ability by the RSP based on demographic factors.

Particularly, the regression analyses show that RSP was found to be statistically significant in predicting vocabulary ability based on the demographic factors [$t(17,367) = 8.917, p = 0.000 (p < 0.05), \beta = 0.416, f^2 = 0.330, R^2 = 0.248$], especially

the child age [$t(17,367) = 2.647, p = 0.008$ ($p < 0.05$), $\beta = 0.127$], marital Status [$t(17,367) = -1.994, p = 0.047$ ($p < 0.05$), $\beta = -0.093$], and Date/year received kits [$t(17,367) = -2.756, p = 0.006$ ($p < 0.05$), $\beta = -0.141$]. Therefore, the hypothesis (H3: There are positive impacts of RSP on a child's vocabulary ability based on demographic factors) is **PARTIALLY ACCEPTED**.

Table 4.4.3: Regression test RSP and vocabulary ability based on demographic

	R^2	f^2	df	β	t	Sig	*rank
RSP ► Vocabulary ability	.164	0.196	1,383	.404	8.656	.000	
RSP ► Vocabulary ability	.248	0.330	17,367	.416	8.917	.000	
► Respondents' Age				.006	.124	.901	
► Child' age				.127	2.647	.008	
► Respondents' gender				.012	.253	.801	
► Child' gender				.067	1.452	.147	
► Ethnicity				-.024	-.500	.617	
► Socio-economic Status				.064	1.055	.292	
► Current Location				-.019	-.397	.692	
► Respondents' Place of Birth				-.033	-.676	.499	
► Child Place of Birth				.010	.214	.830	
► Marital Status				-.093	-1.994	.047	
► Employment				-.024	-.448	.654	
► Highest Qualification				-.095	-1.591	.113	
► Date/year received kits				-.141	-2.756	.006	
► RSP kits obtained from				-.010	-.221	.826	
► RSP Joining				.076	1.528	.127	
► Siblings used the RSP kits				.056	1.195	.233	
<u>Respondents' Age</u>							
20 - 30	.334	0.502	1,80	.578	6.329	.000	1
31 - 40	.097	0.107	1,253	.311	5.206	.000	4
41 - 50	.311	0.451	1,30	.558	3.679	.001	2
Not Specified	.309	0.447	1,14	.556	2.501	.025	3
<u>Child' age</u>							
0 - 3 yrs old	.186	0.229	1,245	.432	7.488	.000	1
4 - 6 yrs old	.136	0.157	1,120	.369	4.349	.000	2
>= 7 yrs old	.310	0.449	1,8	.557	1.896	.095	
Not specified	.211	0.267	1,4	.460	1.036	.359	
<u>Respondents' gender</u>							
Male	.025	0.026	1,57	.157	1.201	.235	
Female	.197	0.245	1,324	.444	8.928	.000	1
<u>Child's gender</u>							
Male	.183	0.224	1,199	.427	6.669	.000	1
Female	.156	0.185	1,182	.395	5.800	.000	2
<u>Ethnicity</u>							
Bidayuh	.311	0.451	1,34	.558	3.918	.000	2

Table 4.4.3: Regression test RSP and vocabulary ability based on demographic

	R^2	f^2	df	β	t	Sig	*rank
Chinese	.055	0.058	1,114	.234	2.570	.011	4
Iban	.842	5.329	1,13	.918	8.335	.000	1
Orang Ulu	.715	2.509	1,2	.846	2.241	.154	
Malay	.205	0.258	1,194	.453	7.083	.000	3
Melanau	.223	0.287	1,14	.472	2.002	.065	
Not specified	1.000	.	1,0	-1.000	.	.	
<u>Socio-economic Status</u>							
Less than RM1000	.382	0.618	1,38	.618	4.850	.000	1
RM1000 - RM3999	.171	0.206	1,167	.414	5.879	.000	2
RM4000 - RM8500	.059	0.063	1,134	.243	2.902	.004	4
Above RM8500	.147	0.172	1,38	.383	2.558	.015	3
<u>Current Location</u>							
Kuching	.171	0.206	1,270	.414	7.470	.000	1
Others	.147	0.172	1,111	.383	4.365	.000	2
<u>Respondents' Place of Birth</u>							
Kuching	.099	0.110	1,211	.314	4.811	.000	2
Others	.242	0.319	1,169	.492	7.340	.000	1
<u>Child Place of Birth</u>							
Government Hospital	.179	0.218	1,305	.423	8.155	.000	1
Private Hospital	.108	0.121	1,74	.328	2.987	.004	2
Others	1.000	.	1,0	1.000	.	.	
<u>Marital Status</u>							
Married	.171	0.206	1,378	.413	8.821	.000	1
Single Parent	.010	0.010	1,3	-.101	-.176	.871	
<u>Employment</u>							
Public Sector	.168	0.202	1,184	.410	6.092	.000	2
Private Sector	.144	0.168	1,85	.379	3.780	.000	4
Self-employed / Small Business	.431	0.757	1,26	.656	4.435	.000	1
Unemployed / Housewife	.150	0.176	1,80	.388	3.761	.000	3
Not specified	1.000	.	1,0	1.000	.	.	
<u>Highest Qualification</u>							
University Degree	.107	0.120	1,181	.327	4.652	.000	4
Diploma	.177	0.215	1,83	.420	4.219	.000	3
Certificate	.211	0.267	1,29	.459	2.784	.009	2
Secondary School	.249	0.332	1,79	.499	5.115	.000	1
Primary School	.263	0.357	1,3	.513	1.035	.377	
<u>Date/year received kits</u>							
2017-2019	.407	0.686	1,67	.638	6.777	.000	1
2020-2022	.153	0.181	1,311	.391	7.496	.000	2
Not specified	.991	110.111	1,1	-.996	-10.537	.060	
<u>RSP kits obtained from:</u>							
Health Clinic / Government Polyclinic	.250	0.333	1,24	.500	2.831	.009	1
PUSTAKA Negeri Sarawak	.192	0.238	1,339	.438	8.964	.000	2
Others	.000	0.000	1,16	-.015	-.061	.952	

Table 4.4.3: Regression test RSP and vocabulary ability based on demographic

	R^2	f^2	df	β	t	Sig	*rank
<u>RSP Joining</u>							
Voluntary	.195	0.242	1,272	.442	8.119	.000	2
Invited	.128	0.147	1,75	.357	3.315	.001	3
Selected	.394	0.650	1,26	.628	4.112	.000	1
Compulsory	1.000	.	1,0	-1.000	.	.	
Others	.417	0.715	1,2	-.645	-1.195	.355	
<u>Siblings used the RSP kits</u>							
No sibling	.096	0.106	1,238	.310	5.038	.000	2
1 and more siblings	.337	0.508	1,143	.581	8.526	.000	1

** R^2 : <0.02 (very weak), $0.02 \leq R^2 < 0.13$ (weak), $0.13 \leq R^2 < 0.26$ (moderate), ≥ 0.26 (substantial)

** f^2 : ≥ 0.02 (small), ≥ 0.15 (medium), ≥ 0.35 (large)

4.4.4 RQ4: What are the impacts of RSP in the child's confidence development, based on demographic factors?

Ho: There is no impact of RSP in child's confidence development, based on demographic factors.

H4: There are positive impacts of RSP in child's confidence development, based on demographic factors.

In general, the Reading Seed Programme (RSP) is statistically significant in predicting a child's confidence development [$t(1,383) = 8.207, p = 0.000$ ($p < 0.05$)]. This result reveals a positive effect of the RSP on a child's confidence development. Moreover, the $R^2 = 0.150$ indicates that the model (RSP) explains 15% of the variance in a child's confidence development. The RSP also significantly predicts a child's confidence development with a medium effect size [$f^2 = 0.176, \beta = 0.38$].

In specific, *ceteris paribus* (all other things being equal), the regression analyses according to the individual demographic characters show that the RSP significantly predicts child's confidence development based on the demographic factor:

1. **Respondents' age:** those who have not specified their age [$t(1,14) = 2.622, p = 0.020$ ($p < 0.05$), $\beta = 0.574, f^2 = 0.490, R^2 = 0.329$], followed by those who are age 41 – 50 [$t(1,30) = 2.732, p = 0.010$ ($p < 0.05$), $\beta = 0.446, f^2 = 0.248, R^2$

= 0.199], age 20 - 30 [$t(1,80) = 4.241, p = 0.000$ ($p < 0.05$), $\beta = 0.428, f^2 = 0.225, R^2 = 0.184$] and those who are age 31 - 40 [$t(1,253) = 6.340, p = 0.000$ ($p < 0.05$), $\beta = 0.370, f^2 = 0.159, R^2 = 0.137$] are found to significantly predict a child's confidence development by the RSP based on the demographic factors.

2. **Childs' age:** Child's age more than 7 years old [$t(1,8) = 2.428, p = 0.041$ ($p < 0.05$), $\beta = 0.651, f^2 = 0.736, R^2 = 0.424$], followed by those who are age 0 – 3 [$t(1,245) = 7.524, p = 0.000$ ($p < 0.05$), $\beta = 0.433, f^2 = 0.232, R^2 = 0.188$] and 4 – 6 [$t(1,120) = 4.903, p = 0.000$ ($p < 0.05$), $\beta = 0.409, f^2 = 0.200, R^2 = 0.167$] significantly predicts child's confidence development by the RSP based on the demographic factors. Apparently, those who have not specified their child's age [$t(1,4) = 0.530, p = 0.000$ ($p > 0.05$), $\beta = 0.256, f^2 = 0.071, R^2 = 0.066$] were found not to be statistically significant predictors of their child's confidence development by the RSP based on the demographic factors.
3. **Respondent's gender:** Female [$t(1,324) = 8.773, p = 0.000$ ($p < 0.05$), $\beta = 0.438, f^2 = 0.238, R^2 = 0.192$] was found to significantly predict a child's confidence development by the RSP based on the demographic factors. Apparently, male [$t(1,57) = 0.116, p = 0.908$ ($p > 0.05$), $\beta = 0.015, f^2 = 0.000, R^2 = 0.000$] was found not to be statistically significant in predicting a child's confidence development by the RSP based on the demographic factors.
4. **Childs' gender:** Male [$t(1,199) = 6.522, p = 0.000$ ($p < 0.05$), $\beta = 0.420, f^2 = 0.214, R^2 = 0.176$] followed by female [$t(1,182) = 5.490, p = 0.000$ ($p < 0.05$), $\beta = 0.377, f^2 = 0.166, R^2 = 0.142$] are found to significantly predict a child's confidence development by the RSP based on demographic factors.
5. **Ethnicity:** Bidayuh [$t(1,34) = 3.562, p = 0.000$ ($p < 0.05$), $\beta = 0.521, f^2 = 0.374, R^2 = 0.272$], followed by Malay [$t(1,194) = 5.812, p = 0.000$ ($p < 0.05$), $\beta = 0.385, f^2 = 0.174, R^2 = 0.148$] and Chinese [$t(1,114) = 3.570, p = 0.001$ (p

< 0.05), $\beta = 0.317$, $f^2 = 0.112$, $R^2 = 0.101$] are found to significantly predict a child's confidence development by the RSP based on demographic factors. Apparently, Iban [$t(1,13) = 1.312$, $p = 0.212$ ($p > 0.05$), $\beta = 0.342$, $f^2 = 0.133$, $R^2 = 0.117$], Orang Ulu [$t(1,2) = 1.671$, $p = 0.237$ ($p > 0.05$), $\beta = 0.763$, $f^2 = 1.398$, $R^2 = 0.583$] and Melanau [$t(1,14) = 1.168$, $p = 0.262$ ($p > 0.05$), $\beta = 0.298$, $f^2 = 0.098$, $R^2 = 0.089$] were found not to be statistically significant predictors of a child's confidence development by the RSP based on the demographic factors.

6. **Socio-economic status:** household income less than RM1000 [$t(1,38) = 4.984$, $p = 0.000$ ($p < 0.05$), $\beta = 0.629$, $f^2 = 0.653$, $R^2 = 0.395$] followed by household income between RM1000 – RM3999 [$t(1,167) = 4.873$, $p = 0.000$ ($p < 0.05$), $\beta = 0.353$, $f^2 = 0.143$, $R^2 = 0.125$], above RM8500 [$t(1,38) = 2.293$, $p = 0.027$ ($p < 0.05$), $\beta = 0.349$, $f^2 = 0.139$, $R^2 = 0.122$] and between RM4000 – RM8500 [$t(1,134) = 3.429$, $p = 0.001$ ($p < 0.05$), $\beta = 0.284$, $f^2 = 0.088$, $R^2 = 0.081$] are found to significantly predict a child's confidence development by the RSP based on demographic factors.
7. **Current location:** Kuching [$t(1,270) = 7.240$, $p = 0.000$ ($p < 0.05$), $\beta = 0.403$, $f^2 = 0.195$, $R^2 = 0.163$] followed by outside Kuching [$t(1,111) = 3.823$, $p = 0.000$ ($p < 0.05$), $\beta = 0.341$, $f^2 = 0.131$, $R^2 = 0.116$] are found to significantly predict a child's confidence development by the RSP based on demographic factors.
8. **Respondents' place of birth:** Those who were not born in Kuching [$t(1,169) = 7.015$, $p = 0.000$ ($p < 0.05$), $\beta = 0.475$, $f^2 = 0.292$, $R^2 = 0.226$] followed by those who were born in Kuching [$t(1,211) = 4.564$, $p = 0.000$ ($p < 0.05$), $\beta = 0.300$, $f^2 = 0.099$, $R^2 = 0.090$] are found to significantly predict a child's confidence development by the RSP based on demographic factors.
9. **Child's place of birth:** Government hospital [$t(1,305) = 7.355$, $p = 0.000$ (p

< 0.05), $\beta = 0.388$, $f^2 = 0.178$, $R^2 = 0.151$] followed by private hospital [$t(1,74) = 3.397$, $p = 0.001$ ($p < 0.05$), $\beta = 0.367$, $f^2 = 0.156$, $R^2 = 0.135$] are found to significantly predict a child's confidence development by the RSP based on demographic factors.

10. **Marital status:** Participants who are married [$t(1,378) = 8.268$, $p = 0.000$ ($p < 0.05$), $\beta = 0.391$, $f^2 = 0.181$, $R^2 = 0.153$] were found to significantly predict a child's confidence development by the RSP based on the demographic factors. Apparently, single parenthood [$t(1,3) = -0.629$, $p = 0.574$ ($p > 0.05$), $\beta = -0.341$, $f^2 = 0.133$, $R^2 = 0.117$] was found not to be statistically significant in predicting a child's confidence development by the RSP based on the demographic factors.

11. **Employment:** Self-employed / small business [$t(1,26) = 5.311$, $p = 0.000$ ($p < 0.05$), $\beta = 0.721$, $f^2 = 1.083$, $R^2 = 0.520$], followed by public sector [$t(1,184) = 5.863$, $p = 0.000$ ($p < 0.05$), $\beta = 0.397$, $f^2 = 0.186$, $R^2 = 0.157$], private sector [$t(1,85) = 3.160$, $p = 0.002$ ($p < 0.05$), $\beta = 0.324$, $f^2 = 0.117$, $R^2 = 0.105$] and unemployed / housewife [$t(1,80) = 3.154$, $p = 0.002$ ($p < 0.05$), $\beta = 0.333$, $f^2 = 0.125$, $R^2 = 0.111$] are found to significantly predict a child's confidence development by the RSP based on demographic factors.

12. **Highest qualification:** Primary school [$t(1,3) = 3.433$, $p = 0.041$ ($p < 0.05$), $\beta = 0.893$, $f^2 = 3.926$, $R^2 = 0.797$], followed by secondary school [$t(1,79) = 4.672$, $p = 0.000$ ($p < 0.05$), $\beta = 0.465$, $f^2 = 0.276$, $R^2 = 0.216$], certificate [$t(1,29) = 2.581$, $p = 0.015$ ($p < 0.05$), $\beta = 0.432$, $f^2 = 0.230$, $R^2 = 0.187$], diploma [$t(1,83) = 3.737$, $p = 0.000$ ($p < 0.05$), $\beta = 0.379$, $f^2 = 0.168$, $R^2 = 0.144$] and university degree [$t(1,181) = 4.502$, $p = 0.000$ ($p < 0.05$), $\beta = 0.317$, $f^2 = 0.112$, $R^2 = 0.101$] are found to significantly predict a child's confidence development by the RSP based on demographic factors.

13. **Date/year received the RSP kits:** 2017 - 2019 [$t(1,67) = 7.029$, $p = 0.000$ (p

< 0.05), $\beta = 0.651$, $f^2 = 0.736$, $R^2 = 0.424$] followed by 2020 – 2022 [$t(1,311) = 7.314$, $p = 0.000$ ($p < 0.05$), $\beta = 0.383$, $f^2 = 0.172$, $R^2 = 0.147$] are found to significantly predict a child's confidence development by the RSP based on demographic factors. Apparently, those who are not specified the date/year [$t(1,1) = -0.732$, $p = 0.598$ ($p > 0.05$), $\beta = -0.590$, $f^2 = 0.536$, $R^2 = 0.349$] were found not to be statistically significant predictors of a child's confidence development by the RSP based on the demographic factors.

14. RSP kits obtained from: Participants' who obtained their RSP kits from PUSTAKA Negeri Sarawak [$t(1,339) = 8.201$, $p = 0.000$ ($p < 0.05$), $\beta = 0.407$, $f^2 = 0.199$, $R^2 = 0.166$] were found to significantly predict the child's confidence development by the RSP based on the demographic factors. Apparently, health clinics / government polyclinics [$t(1,24) = 1.970$, $p = 0.061$ ($p > 0.05$), $\beta = 0.373$, $f^2 = 0.161$, $R^2 = 0.139$] and other sources [$t(1,16) = 0.727$, $p = 0.478$ ($p > 0.05$), $\beta = 0.179$, $f^2 = 0.033$, $R^2 = 0.032$] were not statistically significant predictors of a child's confidence development by the RSP based on the demographic factors.

15. RSP joining mode: Selected [$t(1,26) = 3.164$, $p = 0.004$ ($p < 0.05$), $\beta = 0.527$, $f^2 = 0.385$, $R^2 = 0.278$], followed by voluntary [$t(1,272) = 7.921$, $p = 0.000$ ($p < 0.05$), $\beta = 0.433$, $f^2 = 0.230$, $R^2 = 0.187$] and invited [$t(1,75) = 2.212$, $p = 0.030$ ($p < 0.05$), $\beta = 0.247$, $f^2 = 0.065$, $R^2 = 0.061$] are found to significantly predict the child's confidence development by the RSP based on the demographic factors. Apparently, other joining modes, i.e., friend's recommendation [$t(1,2) = -0.922$, $p = 0.454$ ($p > 0.05$), $\beta = -0.546$, $f^2 = 0.425$, $R^2 = 0.298$], were found not to be statistically significant predictors of a child's confidence development by the RSP based on the demographic factors.

16. Other siblings who used the RSP kits: 1 and more siblings [$t(1,143) = 7.700$, $p = 0.000$ ($p < 0.05$), $\beta = 0.541$, $f^2 = 0.414$, $R^2 = 0.293$], followed by no siblings [$t(1,238) = 5.012$, $p = 0.000$ ($p < 0.05$), $\beta = 0.309$, $f^2 = 0.105$, $R^2 = 0.095$] were

found to significantly predict a child's confidence development by the RSP based on the demographic factors.

Particularly, the regression analyses show that RSP was found to be statistically significant in predicting a child's confidence development based on the demographic factors [$t(17,367) = 8.643, p = 0.000$ ($p < 0.05$), $\beta = 0.385, f^2 = 0.453, R^2 = 0.312$], especially the child's age [$t(17,367) = 4.497, p = 0.000$ ($p < 0.05$), $\beta = 0.207$]; child's gender [$t(17,367) = 2.813, p = 0.005$ ($p < 0.05$), $\beta = 0.124$]; number of siblings who used the RSP kits [$t(17,367) = 2.431, p = 0.016$ ($p < 0.05$), $\beta = 0.108$], and date/year received kits [$t(17,367) = -4.189, p = 0.000$ ($p < 0.05$), $\beta = -0.205$]. Therefore, the hypothesis (H4: There are positive impacts of RSP on a child's confidence development based on demographic factors) is **PARTIALLY ACCEPTED**.

Table 4.4.4: Regression test RSP and confidence development based on demographic

	R^2	f^2	df	β	t	Sig	*rank
RSP ► Child's confidence development	.150	0.176	1,383	.387	8.207	.000	
RSP ► Child's confidence development	.312	0.453	17,367	.385	8.643	.000	
► Respondents' Age				.044	.984	.326	
► Child' age				.207	4.497	.000	1
► Respondents' gender				.041	.915	.361	
► Child' gender				.124	2.813	.005	2
► Ethnicity				.008	.173	.863	
► Socio-economic Status				.051	.887	.376	
► Current Location				-.005	-.107	.915	
► Respondents' Place of Birth				-.024	-.511	.610	
► Child Place of Birth				.021	.449	.654	
► Marital Status				-.043	-.954	.341	
► Employment				-.056	-1.110	.268	
► Highest Qualification				-.047	-.818	.414	
► Date/year received kits				-.205	-4.189	.000	4
► RSP kits obtained from				.025	.574	.566	
► RSP Joining				.022	.470	.639	
► Siblings used the RSP kits				.108	2.431	.016	3
Respondents' Age							
20 - 30	.184	0.225	1,80	.428	4.241	.000	3
31 - 40	.137	0.159	1,254	.370	6.340	.000	4
41 - 50	.199	0.248	1,30	.446	2.732	.010	2
Not Specified	.329	0.490	1,14	.574	2.622	.020	1
Child' age							

Table 4.4.4: Regression test RSP and confidence development based on demographic

	R^2	f^2	df	β	t	Sig	*rank
0 - 3 yrs old	.188	0.232	1,245	.433	7.524	.000	2
4 - 6 yrs old	.167	0.200	1,120	.409	4.903	.000	3
>= 7 yrs old	.424	0.736	1,8	.651	2.428	.041	1
Not specified	.066	0.071	1,4	.256	.530	.624	
<u>Respondents' gender</u>							
Male	.000	0.000	1,57	.015	.116	.908	
Female	.192	0.238	1,324	.438	8.773	.000	1
<u>Child's gender</u>							
Male	.176	0.214	1,199	.420	6.522	.000	1
Female	.142	0.166	1,182	.377	5.490	.000	2
<u>Ethnicity</u>							
Bidayuh	.272	0.374	1,34	.521	3.562	.001	1
Chinese	.101	0.112	1,114	.317	3.570	.001	3
Iban	.117	0.133	1,13	.342	1.312	.212	
Orang Ulu	.583	1.398	1,2	.763	1.671	.237	
Malay	.148	0.174	1,194	.385	5.812	.000	2
Melanau	.089	0.098	1,14	.298	1.168	.262	
Not specified	1.000	.	1,0	1.000	.	.	
<u>Socio-economic Status</u>							
Less than RM1000	.395	0.653	1,38	.629	4.984	.000	1
RM1000 - RM3999	.125	0.143	1,167	.353	4.873	.000	2
RM4000 - RM8500	.081	0.088	1,134	.284	3.429	.001	4
Above RM8500	.122	0.139	1,38	.349	2.293	.027	3
<u>Current Location</u>							
Kuching	.163	0.195	1,270	.403	7.240	.000	1
Others	.116	0.131	1,111	.341	3.823	.000	2
<u>Respondents' Place of Birth</u>							
Kuching	.090	0.099	1,211	.300	4.564	.000	2
Others	.226	0.292	1,169	.475	7.015	.000	1
<u>Child Place of Birth</u>							
Government Hospital	.151	0.178	1,305	.388	7.355	.000	1
Private Hospital	.135	0.156	1,74	.367	3.397	.001	2
Others	1.000	.	1,0	1.000	.	.	
<u>Marital Status</u>							
Married	.153	0.181	1,378	.391	8.268	.000	1
Single Parent	.117	0.133	1,3	-.341	-.629	.574	
<u>Employment</u>							
Public Sector	.157	0.186	1,184	.397	5.863	.000	2
Private Sector	.105	0.117	1,85	.324	3.160	.002	3
Self-employed / Small Business	.520	1.083	1,26	.721	5.311	.000	1
Unemployed / Housewife	.111	0.125	1,80	.333	3.154	.002	4
Not specified	1.000	.	1,0	1.000	.	.	
<u>Highest Qualification</u>							
University Degree	.101	0.112	1,181	.317	4.502	.000	5

Table 4.4.4: Regression test RSP and confidence development based on demographic

	R^2	f^2	df	β	t	Sig	*rank
Diploma	.144	0.168	1,83	.379	3.737	.000	4
Certificate	.187	0.230	1,29	.432	2.581	.015	3
Secondary School	.216	0.276	1,79	.465	4.672	.000	2
Primary School	.797	3.926	1,3	.893	3.433	.041	1
<u>Date/year received kits</u>							
2017-2019	.424	0.736	1,67	.651	7.029	.000	1
2020-2022	.147	0.172	1,311	.383	7.314	.000	2
Not specified	.349	0.536	1,1	-.590	-.732	.598	
<u>RSP kits obtained from:</u>							
Health Clinic / Government Polyclinic	.139	0.161	1,24	.373	1.970	.061	
PUSTAKA Negeri Sarawak	.166	0.199	1,339	.407	8.201	.000	1
Others	.032	0.033	1,16	.179	.727	.478	
<u>RSP Joining</u>							
Voluntary	.187	0.230	1,272	.433	7.921	.000	2
Invited	.061	0.065	1,75	.247	2.212	.030	3
Selected	.278	0.385	1,26	.527	3.164	.004	1
Compulsory	1.000	.	1,0	-1.000	.	.	
Others	.298	0.425	1,2	-.546	-.922	.454	
<u>Siblings used the RSP kits</u>							
No sibling	.095	0.105	1,238	.309	5.012	.000	2
1 and more siblings	.293	0.414	1,143	.541	7.700	.000	1

** R^2 : <0.02 (very weak), $0.02 \leq R^2 < 0.13$ (weak), $0.13 \leq R^2 < 0.26$ (moderate), ≥ 0.26 (substantial)

** f^2 : ≥ 0.02 (small), ≥ 0.15 (medium), ≥ 0.35 (large)

4.5.5 RQ5: Does the program's execution and intervention contribute to the RSP participation?

Ho: The program's execution and intervention does not contribute to the RSP participation.

H5: The program's execution and intervention contribute to RSP participation.

In general, the programme (RSP and RSP's kits) was statistically significant in predicting RSP participation [$t(1,384) = -2.894, p = 0.000$ ($p < 0.05$)]. This result reveals a negative effect of the programme on RSP participation. Moreover, the $R^2 = 0.021$ indicates that the model (RSP) explains 2.1% of the variance in RSP participation. The programme also significantly predicts RSP participation negatively, with a small effect size [$f^2 = 0.021, \beta = -0.146$].

Regression analyses on the combined model of the programme implementation (the RSP and RSP kits) and RSP intervention differences are performed towards the dependent variables (RSP participation). The result shows that the programme has a statistically significant negative interaction effect on RSP participation [$t(1,384) = -2.939, p = 0.000$ ($p < 0.05$)]. This result indicates that RSP participation has a negatively significant dependence on the programme (RSP and RSP kits) with a small effect size [$f^2 = 0.022, \beta = -0.146$]. Therefore, the hypothesis [H5: The programme's execution and intervention contribute to RSP participation] is **REJECTED**.

Table 4.5.5.2: Regression test execution and intervention towards RSP participation

	R^2	f^2	df	β	t	Sig
The program & RSP Kits ► RSP Participations	.021	0.021	1,384	-.146	-2.894	.004
RSP Intervention ► RSP Participations	.000	0.000	1,384	.013	.253	.800
► RSP Participations						
The program & RSP kits	.022	0.022	2,384	-.150	-2.939	.003
RSP Intervention				.030	.587	.558

** $: R^2: <0.02$ (very weak), $0.02 \leq R^2 < 0.13$ (weak), $0.13 \leq R^2 < 0.26$ (moderate), ≥ 0.26 (substantial)

** $: f^2: \geq 0.02$ (small), ≥ 0.15 (medium), ≥ 0.35 (large)

4.6 SUMMARY OF HYPOTHETICAL ANALYSIS

The summary of the hypothetical analysis is:

1. There is statistical evidence to show that RSP has a substantial magnitude (85%) and a large effect size ($f^2 > 0.35$) in predicting the reading habit. The RSP was also found to be statistically significant at a large magnitude (87.2%) with a large effect size ($f^2 > 0.35$) in predicting reading habits based on demographic factors. In specific, RSP significantly predicts reading habits based on the mode of joining the programme (RSP) [especially through a friend's recommendation, followed by voluntary, invited, and selected] and the number of siblings who used the RSP kits [especially those who have more than one sibling].

2. There is statistical evidence to show that RSP at a moderate magnitude (24.8%) with a moderate effect size ($0.15 < f^2 < 0.35$) is effective in predicting the parent's engagement. The RSP was also found to be statistically significant at substantial magnitude (29.4%) with a large effect size ($f^2 > 0.35$) in predicting parents engagement based on demographic factors. In specific, RSP significantly predicts reading habits based on the mode of joining the programme (RSP) [especially through selected, followed by voluntary, and invited] and the number of siblings who used the RSP kits [especially those who have more than one sibling].
3. There is statistical evidence to show that RSP at moderate magnitude (16.4%) with moderate effect size ($0.15 < f^2 < 0.35$) is effective in predicting vocabulary ability. The RSP was also found to be statistically significant at moderate magnitude (24.8%) with a medium effect size ($0.15 < f^2 < 0.35$) in predicting vocabulary ability based on demographic factors. In specific, RSP significantly predicts vocabulary ability based on child age [especially age 0–3 and followed by children aged 4-6], marital status [especially among those who are married], and date/year received RSP kits [especially between 2017 and 2019 followed by between 2020 and 2022].
4. There is statistical evidence to show that RSP at a moderate magnitude (15.0%) with a moderate effect size ($0.15 < f^2 < 0.35$) is effective in predicting a child's confidence development. The RSP was also found to be statistically significant at a substantial magnitude (31.2%) with a large effect size ($f^2 > 0.35$) in predicting a child's confidence development based on the demographic factors. In specific, RSP significantly predicts vocabulary ability based on child age [especially age more than 7 years old, followed by children who are 0–3 and 4-6 years old], child gender [especially among males and followed by females], date/year received RSP kits [especially between 2017 and 2019 followed by between 2020 and 2022], and number of siblings who used the RSP kits [especially those who have more than 1 sibling and followed by those who have no siblings].

5. There is statistical evidence to show that the programme (RSP and RSP's kits) has a weak magnitude (87.2%) and a small effect size ($f^2 < .02$), which negatively predicts RSP participation.

Table 4.6a Summary of Hypothetical Analysis

Research Questions	RQ1: What are the impacts of RSP in nurturing reading habits, based on demographic factors?		
Research Objectives	RO1: To analyse the impact of RSP in nurturing reading habits, based based on demographic factors.		
Hypothesis	H1: There are positive impacts of RSP in nurturing reading habits, based on demographic factors.		
Findings	<p>RSP ► Reading habit [$t(1,384) = 46.683, p = 0.000 (p < 0.05), \beta = 0.922, R^2 = 0.851, f^2 = 5.711$]</p> <p>RSP ► Reading habit (+demographic) [$t(17,384) = 48.137, p = 0.000 (p < 0.05), \beta = 0.925, R^2 = 0.872, f^2 = 6.813$]</p>		
		β	t
		<i>Sig</i>	
	► Respondents' Age	.026	1.347
	► Child' age	.021	1.065
	► Respondents' gender	-.012	-.603
	► Child' gender	.015	.810
	► Ethnicity	.005	.270
	► Socio-economic Status	.003	.115
	► Current Location	.022	1.132
	► Respondents' Place of Birth	.025	1.236
	► Child Place of Birth	-.025	-1.253
	► Marital Status	-.002	-.105
	► Employment	-.034	-1.556
	► Highest Qualification	-.019	-.770
	► Date/year received kits	-.018	-.855
	► RSP kits obtained from	.008	.439
	► RSP Joining	.055	2.649
	► Siblings used the RSP kits	.107	5.594
	<u>RSP Joining</u>		
	Voluntary	.924	40.000
	Invited	.917	19.974
	Selected	.908	11.047
	Compulsory	1.000	.
	Others	.983	7.565
	<u>Siblings used the RSP kits</u>		
	No sibling	.916	35.144
	1 and more siblings	.949	35.856

Table 4.6a Summary of Hypothetical Analysis

Hypothetical Result **PARTIALLY ACCEPTED.**

Research Questions RQ2: What are the impacts in getting parents' engagement in RSP, based on demographic factors?
Research Objectives RO2: To examine the parents' engagement in RSP, based on demographic factors.
Hypothesis H2: There are positive impacts in getting parents' engagement in RSP, based on demographic factors.

Findings **RSP ► Parent's engagement** [$t(1,384) = 11.240, p = 0.000 (p < 0.05), \beta = 0.498, R^2 = 0.248, f^2 = 0.330$]

RSP ► Parent's engagement (+demographic) [$t(17,384) = 11.291, p = 0.000 (p < 0.05), \beta = 0.510, R^2 = 0.294, f^2 = 0.416$]

	β	t	Sig
► Respondents' Age	-.018	-.396	.692
► Child' age	.025	.532	.595
► Respondents' gender	-.010	-.210	.834
► Child' gender	.029	.644	.520
► Ethnicity	-.072	-1.557	.120
► Socio-economic Status	.023	.397	.692
► Current Location	.046	.989	.323
► Respondents' Place of Birth	.042	.900	.369
► Child Place of Birth	.027	.565	.572
► Marital Status	.040	.883	.378
► Employment	.007	.133	.895
► Highest Qualification	-.103	-1.796	.073
► Date/year received kits	-.016	-.321	.748
► RSP kits obtained from	.072	1.611	.108
► RSP Joining	.090	1.850	.045
► Siblings used the RSP kits	.095	2.102	.036

RSP Joining

Voluntary	.543	10.663	.000
Invited	.441	4.261	.000
Selected	.708	5.110	.000
Compulsory	-1.000	.	.
Others	-.347	-.524	.653

Siblings used the RSP kits

No sibling	.370	6.149	.000
1 and more siblings	.704	11.850	.000

Hypothetical **PARTIALLY ACCEPTED.**

Table 4.6a Summary of Hypothetical Analysis

Result

Research Questions

RQ3: What is the impact of RSP in a child’s vocabulary ability, based on based on demographic factors?

Research Objectives

RO3: To identify the child’s vocabulary ability, based on based on demographic factors.

Hypothesis

H3: There are positive impacts of RSP in the child’s vocabulary ability based on demographic factors.

Findings

RSP ► Vocabulary ability [$t(1,384) = 8.656, p = 0.000 (p < 0.05), \beta = 0.404, R^2 = 0.164, f^2 = 0.196$]

RSP ► Vocabulary ability (+demographic) [$t(17,384) = 8.917, p = 0.000 (p < 0.05), \beta = 0.416, R^2 = 0.248, f^2 = 0.330$]

	β	t	Sig
► Respondents’ Age	.006	.124	.901
► Child’ age	.127	2.647	.008
► Respondents’ gender	.012	.253	.801
► Child’ gender	.067	1.452	.147
► Ethnicity	-.024	-.500	.617
► Socio-economic Status	.064	1.055	.292
► Current Location	-.019	-.397	.692
► Respondents’ Place of Birth	-.033	-.676	.499
► Child Place of Birth	.010	.214	.830
► Marital Status	-.093	-1.994	.047
► Employment	-.024	-.448	.654
► Highest Qualification	-.095	-1.591	.113
► Date/year received kits	-.141	-2.756	.006
► RSP kits obtained from	-.010	-.221	.826
► RSP Joining	.076	1.528	.127
► Siblings used the RSP kits	.056	1.195	.233

Child’ age

0 - 3 yrs old	.432	7.488	.000
4 - 6 yrs old	.369	4.349	.000
>= 7 yrs old	.557	1.896	.095
Not specified	.460	1.036	.359

Marital Status

Married	.413	8.821	.000
Single Parent	-.101	-.176	.871

Date/year received kits

2017-2019	.638	6.777	.000
2020-2022	.391	7.496	.000

Table 4.6a Summary of Hypothetical Analysis

	Not specified	-.996	-10.537	.060																																																																																																																
Hypothetical Result	PARTIALLY ACCEPTED.																																																																																																																			
Research Questions	RQ4: What are the impacts of RSP in the child's confidence development, based on demographic factors?																																																																																																																			
Research Objectives	RO4: To ascertain the child's confidence development, based on demographic factors.																																																																																																																			
Hypothesis	H4: There are positive impacts of RSP in child's confidence development, based on demographic factors.																																																																																																																			
Findings	<p>RSP ► Confidence development [$t(1,384) = 8.207, p = 0.000$ ($p < 0.05$), $\beta = 0.387, R^2 = 0.150, f^2 = 0.176$]</p> <p>RSP ► Confidence development (+demographic) [$t(17,384) = 8.643, p = 0.000$ ($p < 0.05$), $\beta = 0.385, R^2 = 0.312, f^2 = 0.453$]</p> <table border="1"> <thead> <tr> <th></th> <th>β</th> <th>t</th> <th>Sig</th> </tr> </thead> <tbody> <tr><td>► Respondents' Age</td><td>.044</td><td>.984</td><td>.326</td></tr> <tr><td>► Child' age</td><td>.207</td><td>4.497</td><td>.000</td></tr> <tr><td>► Respondents' gender</td><td>.041</td><td>.915</td><td>.361</td></tr> <tr><td>► Child' gender</td><td>.124</td><td>2.813</td><td>.005</td></tr> <tr><td>► Ethnicity</td><td>.008</td><td>.173</td><td>.863</td></tr> <tr><td>► Socio-economic Status</td><td>.051</td><td>.887</td><td>.376</td></tr> <tr><td>► Current Location</td><td>-.005</td><td>-.107</td><td>.915</td></tr> <tr><td>► Respondents' Place of Birth</td><td>-.024</td><td>-.511</td><td>.610</td></tr> <tr><td>► Child Place of Birth</td><td>.021</td><td>.449</td><td>.654</td></tr> <tr><td>► Marital Status</td><td>-.043</td><td>-.954</td><td>.341</td></tr> <tr><td>► Employment</td><td>-.056</td><td>-1.110</td><td>.268</td></tr> <tr><td>► Highest Qualification</td><td>-.047</td><td>-.818</td><td>.414</td></tr> <tr><td>► Date/year received kits</td><td>-.205</td><td>-4.189</td><td>.000</td></tr> <tr><td>► RSP kits obtained from</td><td>.025</td><td>.574</td><td>.566</td></tr> <tr><td>► RSP Joining</td><td>.022</td><td>.470</td><td>.639</td></tr> <tr><td>► Siblings used the RSP kits</td><td>.108</td><td>2.431</td><td>.016</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="4"><u>Child' age</u></th> </tr> </thead> <tbody> <tr><td>0 - 3 yrs old</td><td>.433</td><td>7.524</td><td>.000</td></tr> <tr><td>4 - 6 yrs old</td><td>.409</td><td>4.903</td><td>.000</td></tr> <tr><td>>= 7 yrs old</td><td>.651</td><td>2.428</td><td>.041</td></tr> <tr><td>Not specified</td><td>.256</td><td>.530</td><td>.624</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="4"><u>Child's gender</u></th> </tr> </thead> <tbody> <tr><td>Male</td><td>.420</td><td>6.522</td><td>.000</td></tr> <tr><td>Female</td><td>.377</td><td>5.490</td><td>.000</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="4"><u>Date/year received kits</u></th> </tr> </thead> <tbody> <tr><td>2017-2019</td><td>.651</td><td>7.029</td><td>.000</td></tr> <tr><td>2020-2022</td><td>.383</td><td>7.314</td><td>.000</td></tr> </tbody> </table>					β	t	Sig	► Respondents' Age	.044	.984	.326	► Child' age	.207	4.497	.000	► Respondents' gender	.041	.915	.361	► Child' gender	.124	2.813	.005	► Ethnicity	.008	.173	.863	► Socio-economic Status	.051	.887	.376	► Current Location	-.005	-.107	.915	► Respondents' Place of Birth	-.024	-.511	.610	► Child Place of Birth	.021	.449	.654	► Marital Status	-.043	-.954	.341	► Employment	-.056	-1.110	.268	► Highest Qualification	-.047	-.818	.414	► Date/year received kits	-.205	-4.189	.000	► RSP kits obtained from	.025	.574	.566	► RSP Joining	.022	.470	.639	► Siblings used the RSP kits	.108	2.431	.016	<u>Child' age</u>				0 - 3 yrs old	.433	7.524	.000	4 - 6 yrs old	.409	4.903	.000	>= 7 yrs old	.651	2.428	.041	Not specified	.256	.530	.624	<u>Child's gender</u>				Male	.420	6.522	.000	Female	.377	5.490	.000	<u>Date/year received kits</u>				2017-2019	.651	7.029	.000	2020-2022	.383	7.314	.000
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Table 4.6a Summary of Hypothetical Analysis

	Not specified	-.590	-.732	.598
	<u>Siblings used the RSP kits</u>			
	No sibling	.309	5.012	.000
	1 and more siblings	.541	7.700	.000
Hypothetical Result	PARTIALLY ACCEPTED.			
Research Questions	RQ5: Does the program's execution and intervention contribute to the RSP participation?			
Research Objectives	RO5: To determine the RSP implementations and participation in the program.			
Hypothesis	H5: The program's execution and intervention contribute to RSP participation.			
Findings	<p>The program & RSP Kits ► RSP Participations [$t(1,384) = -2.894, p = 0.000$ ($p < 0.05$), $\beta = -0.146, R^2 = 0.021, f^2 = 0.021$]</p> <p>The program & RSP Kits + RSP intervention ► RSP Participations [$t(2,384) = -2.939, p = 0.000$ ($p < 0.05$), $\beta = -0.150, R^2 = 0.022, f^2 = 0.020$]</p>			
Hypothetical Result	REJECTED.			

6. Additional non-hypothetical findings (shown in Table 4.6b) show the ranking of the impacts of the predictors (RSP) on the reading habit, parent's engagement, vocabulary ability, and child's confidence development. In a model (without demographic factors), the statistical analyses demonstrated that the RSP has a significant impact, predicting the reading habit at substantial magnitude (85.1%) with a large effect size ($f^2 > 0.35$), followed by parent's engagement [$\beta = 0.498, R^2 = 0.248, f^2 = 0.330$], vocabulary ability [$\beta = 0.404, R^2 = 0.164, f^2 = 0.164$], and confidence development [$\beta = 0.387, R^2 = 0.150, f^2 = 0.176$]. Besides, in a model (with demographic factors), the statistical analyses demonstrated that the RSP has a significant impact, predicting the reading habit at substantial magnitude (87.2%) with a large effect size ($f^2 > 0.35$), followed by parent's engagement [$\beta = 0.510, R^2 = 0.294, f^2 = 0.416$], vocabulary ability [$\beta = 0.416, R^2 = 0.248, f^2 = 0.330$], and confidence development [$\beta = 0.385, R^2 = 0.312, f^2 = 0.453$].

Table 4.6b non-hypothetical analyses

	R^2	f^2	df	β	t	Sig
RSP ► Reading habit	.851	5.711	1,383	.922	46.683	.000
RSP ► Parent's engagement	.248	0.330	1,383	.498	11.240	.000
RSP ► Vocabulary ability	.164	0.196	1,383	.404	8.656	.000
RSP ► Confidence development	.150	0.176	1,383	.387	8.207	.000
(+demographic)						
RSP ► Reading habit	.872	6.813	17,367	.925	48.137	.000
RSP ► Parent's engagement	.294	0.416	17,367	.510	11.291	.000
RSP ► Vocabulary ability	.248	0.330	17,367	.416	8.917	.000
RSP ► Confidence development	.312	0.453	17,367	.385	8.643	.000

** R^2 : <0.02 (very weak), $0.02 \leq R^2 < 0.13$ (weak), $0.13 \leq R^2 < 0.26$ (moderate), ≥ 0.26 (substantial)

** f^2 : ≥ 0.02 (small), ≥ 0.15 (medium), ≥ 0.35 (large)

Chapter 5.0: Discussion and Conclusion

5.1 INTRODUCTION

This chapter discusses the research findings based on the impact of Reading Seed Program (RSP) of PUSTAKA Negeri Sarawak. This research project aims to assess whether the reading programme, the invested Reading Seed Program is generating the desired impact in nurturing and inculcating reading interest among the young readers. The discussions within this chapter include identified issues, findings and limitations as well as recommendations for each for the following sub-headings: The Reading Seed Program, Reading Habit, Parent’s Engagement, child’s vocabulary ability, child’s confidence development, RSP execution and intervention. As mentioned in Chapter 4: “The findings of this study are crucial in developing reading interests and encouraging reading habits among the targeted users or the participants. Therefore, the information and resource providers will be able to provide optimum facilities and enhance their staff’s capabilities and abilities to serve the clients better”. Research limitations and recommendations are also discussed after the discussion.

5.2 READING SEED PROGRAM

The Reading Seed Programme (RSP) forms an integral component of the literacy initiatives implemented by PUSTAKA Negeri Sarawak, alongside other in-house programs such as PUSTAKA in a Box, Bookaroo, and Makers Meet. Notably, the RSP, complete with a dedicated module for parents and RSP kits, has been designed to cater to early childhood literacy. Its core objective is to cultivate a reading culture right from the prenatal stage, extending its focus to toddlers up until the age of three years.

5.2.1 Discussion Issues

The RSP is an early childhood literacy programme that has been designed to promote reading culture in Malaysia and targets pregnant women and children up to three years old. The programme covers five critical areas, such as physical and developmental growth, literacy development, immunisation, and screen time. The participants (parents) provided with the RSP kits contain the RSP module for Parents Reading Friends, the growth development checklist, a chart to monitor child's development progress, and learning tools. The short briefing (online training during MCO) is provided by the RSP team of PUSTAKA. It is expected that the participants know how to use all the materials in the kit; the language used in all the materials is clear; reading materials attract children's interest; and the RSP materials help parents communicate with their children.

The RSP is mainly targeted for early childhood programmes likely to provide learning experiences among children and aims to have a significant impact on reading habits, parents' engagement, vocabulary, and confidence development. The RSP was initiated to provide access to quality early literacy materials, give parents the skill to read to their newborn, make reading enjoyable for the parent and their child, expose the child to a greater number of words through books, and groom the child for more precise oral communication.

Therefore, this study aims to demonstrate the impact of the Reading Seed Programme (RSP) on reading habits, parental involvement, children's vocabulary skills, and their confidence development, all analyzed within the framework of demographic variables. Moreover, the research aims to anticipate how the program's implementation and interventions impact participation in the RSP.

5.2.2 Research Findings

In general, the RSP is an early childhood literacy initiative that has demonstrated notable benefits. It gives strong and statistically significant evidence, indicating a substantial ability to predict the development of reading habits, characterized by a significant effect size. Furthermore, the RSP exhibits a moderate level of statistical significance, forecasting with a medium effect size, its influence on parental engagement, the enhancement of children's vocabulary skills, and the fostering of their

self-confidence.

5.2.3 Limitation and Recommendation

This study has identified certain limitations in relation to the RSP programme. Notably, the assumption that the targeted participants (children) possess uniform intelligence and learning capabilities is a limitation. The programme lacks specific provisions for addressing learning disabilities, which can be a missed opportunity to identify such challenges at an early stage.

1. To address this, it's recommended that the RSP be updated to include information about learning disabilities and processing difficulties that might affect participating children. These updates would aid in early detection and provide necessary interventions, creating a more inclusive environment that caters to diverse learning needs.
2. Moreover, the RSP module could benefit from clearer articulation of its attitudinal components and intended outcomes. A more transparent framework would enable participants to understand what they can anticipate from the programme. This clarity could also empower parents to track their children's progress effectively, fostering engagement and motivation to utilize the RSP kits continuously. While the RSP kits offer valuable learning experiences, there's room for further development that considers individual learning capacities.
3. Furthermore, although the RSP primarily aims to establish cognitive reading abilities from a very early stage, it's important to acknowledge the strategic role of sound phonemic awareness skills. Implementing phonics strategies, aligned with prevailing practices at the kindergarten level, can enhance the programme's effectiveness in teaching practical and applicable reading skills.
4. Additionally, considering that 50.9% of the respondents were Malay, enhancing the RSP's usability was suggested by incorporating basic Islamic or Arabic elements of reading. Drawing from Azrul Hisyam and Muhammad Fadlly's study (2023), it is recommended that the RSP integrate fundamental Quranic reading methods such as Iqra', al-Bagdadi, al-Barqy, and/or Abahata al-Jabari.

In conclusion, while the RSP demonstrates significant potential for nurturing early literacy skills, addressing the above limitations through updates and enhancements could elevate its impact and inclusivity, catering to a wider spectrum of learning capabilities and individual needs.

5.3 READING HABIT

To briefly summarize the concept: in this study, the term "reading habit" refers to the literacy enhancement effort facilitated by the RSP, aimed at fostering a culture of reading. The RSP is perceived as possessing the capacity to facilitate children's early reading acquisition, ultimately equipping them to become autonomous readers and lifelong learners. Consequently, the RSP, inclusive of the module designed for parents and RSP kits, was conceived to cater to early childhood literacy. Its primary focus is on instilling a reading habit right from the prenatal phase, persistently nurturing it until toddlers reach the age of three years.

5.3.1 Discussion Issues

The initial objective of this study is to assess the influence of the RSP on cultivating reading habits while considering demographic variables. The RSP is perceived as a catalyst for nurturing reading habits, particularly with regards to printed books. This includes indicators such as a child's keen interest in books, attraction to captivating illustrations, enjoyment during storybook sessions with parents, bringing favourite books for reading, deriving pleasure from looking at or reading physical books, independent reading with parental encouragement, reading in tandem with a parent, and engaging in reading activities more than 8 times weekly.

Beyond the tangible RSP kits, the program also encompasses access to online learning resources. In this context, the RSP is seen as fostering a reading habit concerning digital media. This aspect involves the child's enjoyment of interactive stories on a touchscreen, spending longer durations reading on a screen compared to printed materials, frequent usage of the screen for educational entertainment as opposed to reading, a preference for interactive digital content, and engaging in screen-

based reading activities more than 8 times per week.

5.3.2 Research Findings

In general, the research findings provide statistical evidence to underscore the efficacy of the RSP as a valuable program, with a significant predictive influence (large effect) on fostering reading habits. Specifically, the RSP was found to account for a positive explanation of 85% of children's reading habits overall. When demographic factors were considered, the statistical evidence remained consistent in illustrating the program's efficacy and significant predictive impact (large effect) on nurturing reading habits, with the RSP explaining 87.2% of children's reading habits.

For the demographic characteristics, the analysis revealed that two specific factors stood out as significant indicators of the RSP's predictive power regarding children's reading habits. Firstly, the mode through which participants joined the RSP yielded noteworthy insights. Participants who were referred to the program by their friends exhibited a particularly strong consensus on the program's beneficial nature, followed by those who willingly enrolled and those who were selected to join. Secondly, participants with multiple children using RSP kits were more likely to perceive the program as beneficial compared to children without siblings using the kits.

The findings validate the RSP's original intent to instill a reading habit from an early age. Participants referred to the program by others might have observed the positive impact the RSP had on their friends' children, influencing their perception of the program's efficacy. Additionally, the presence of siblings utilizing the RSP kits suggests that the example set by older siblings can motivate the target child to engage with the program. These findings underscore the significance of encouragement and support as important motivational factors in cultivating reading habits, particularly among toddlers.

The findings further align with a previous study (cf. Van Kleeck et al., 2017), adding to the existing body of literature. In line with Van Kleeck et al.'s (2017) findings, shared reading experiences involving printed books among children aged 3 to 7 demonstrated correlations with improved vocabulary, grammar skills, print knowledge, and narrative comprehension compared to shared reading of e-books or

control conditions. These findings also converge with the insights presented by Lkken (2020) and Bus et al. (2021) who highlighted the association between print book reading and enhanced print awareness, oral language skills, and emergent literacy capabilities like phonological awareness and letter recognition. They proceeded to suggest that the tangible and visual attributes of print books, such as the ability to physically interact with words and images, potentially contribute to children's language and literacy skill development, facilitate letter and sound comprehension, and enhance overall comprehension and retention of story content.

In essence, the findings corroborate the existing body of research, reinforcing the advantages associated with printed book reading in terms of fostering language, literacy skills, and overall comprehension among young learners.

5.3.3 Limitation and Recommendation

One of the limitations of the RSP programme identified in this study is its assumption of uniform intelligence and learning capabilities among all participants, a presumption that influences the cultivation of reading habits.

1. Feedback from participants indicates areas for RSP kit enhancement. Suggestions include integrating audio and voice-based reading materials, providing language support in various languages, supplementing the RSP kit with extra materials, introducing origami activities, and offering softer building blocks and a range of sensory toys. Despite the program's inclusion of online learning resources, the constraints stemming from participants' (parents') lack of guidance and accessibility, such as owning smartphones or monitoring screen time, hinder the utilization of these online resources.
2. Similar to Wang and Yen's study (2019), this research findings underscored those parents employing interactive e-books with their preschool-aged children reported heightened engagement and enjoyment compared to those using traditional print books. However, the American Academy of Pediatrics (2016) advised that reading print books may be more effective than e-books in promoting parent-child interaction and early literacy skills. Several studies (e.g., Bus et al., 2021; Lkken,

2020; Pediatrics, 2016) have emphasized the importance of prioritizing print book reading with young children, while acknowledging that e-books can contribute to early literacy development when used judiciously.

3. Furthermore, the fostering of a reading habit at a young age is potentially influenced by learning ability challenges. Thus, it is recommended that the RSP undergo periodic revisions, categorizing content based on the targeted user's (children's) learning abilities.

In conclusion, this study has revealed important limitations pertaining to the RSP programme's impact on nurturing reading habits. One significant limitation lies in the assumption of uniform intelligence and learning capabilities among participants, potentially impacting the effectiveness of the reading habit cultivation process.

5.4 PARENTS' ENGAGEMENT

To succinctly summarize the concept: in this study, "parental engagement" signifies the proactive and pivotal role parents undertake to instill reading habits in their children. The commitment of parents and their active involvement is crucial for ensuring the RSP's effectiveness. Moreover, the RSP serves as a substantial tool for parenting, including the provision of educational toys and fostering meaningful parent-child interactions. Parental engagement goes beyond empowering children to become autonomous readers and lifelong learners; it plays a fundamental role in enhancing children's vocabulary skills and bolstering their confidence, particularly in reading and communication.

5.4.1 Discussion Issues

The second aim of this study is to explore the influence of the RSP on fostering parents' active participation, considering demographic variables. Specifically tailored for early childhood reading development, the RSP materials are directed at infants from birth to three years old. These programs serve as a means for parents to establish effective communication with their child, impart parenting skills, and facilitate precise oral communication skills in their offspring. Consequently, parents are expected to engage

confidently in supportive activities, such as reading aloud to their child regularly, discussing characters and lessons derived from stories, prompting their child to identify pictures, and engaging in follow-up activities related to the narratives.

5.4.2 Research Findings

In a broader perspective, the research findings indicate the presence of statistical evidence affirming the effectiveness of the RSP as a valuable program, moderately predicting parental engagement with a medium effect. The RSP was found to account for a positive explanation of 24.8% concerning the encouragement of parental engagement. When considering demographic factors, the statistical evidence remains consistent, showcasing the program's efficacy in predicting parental engagement, but with a substantial impact (large effect), as it explained 29.4% of the variance in encouraging parents' engagement.

Specifically, the mode through which participants joined the RSP and the number of children's siblings using RSP kits emerged as the two demographic factors significantly predictive of parental engagement. Regarding the mode of joining, participants (parents) who were selected to participate in the RSP exhibited a strong consensus on the program's beneficial nature. Following this, those who voluntarily enrolled and those invited to participate also agreed that the RSP was beneficial. Additionally, participants with multiple children using RSP kits were more inclined to perceive the program as beneficial, especially when compared to children who were the only ones in their family using the kits.

These findings show that the RSP has effectively realized its innovative concept of engaging parents in their children's cognitive development from the earliest phases. Participants who are invited to the program are confident in receiving comprehensive guidance on utilizing the RSP kits. Moreover, the correlation between the number of siblings using the RSP kits and the target child's engagement suggests that siblings can serve as role models, potentially influencing the target child's involvement with the RSP kits. In essence, this result signifies the pivotal roles of encouragement and support as influential factors in instilling reading habits, particularly in the context of toddlers.

The findings of this study resonate with scholars such as Knoche et al. (2020) and Sénéchal et al. (2017), whose insights emphasize the potential of parental interventions in furnishing supplementary resources and support to families, thereby enhancing parental engagement and their child's literacy skills. Prior research has demonstrated that reading programs like the RSP, which include coaching sessions and resources to bolster a child's literacy development through parental involvement, effectively enhance children's literacy skills and elevate parent participation in reading activities (Kwok, Kim, & Castro, 2019). Notably, studies highlighting reading programs geared toward enhancing parent-child interactions during reading and language activities, including shared book reading and storytelling, showcase a positive influence on children's reading outcomes, especially in aspects like vocabulary expansion and reading comprehension (Mol et al., 2019).

In essence, these findings underscore the efficacy of the RSP in not only fostering reading habits but also promoting parental engagement, aligning with existing literature that emphasizes the crucial role of parental involvement in enhancing children's literacy skills and overall reading outcomes.

5.4.3 Limitation and Recommendation

One of the identified limitations of the RSP programme is that it was assumed that the participants who enrolled in the programmes understood the instructions on how to use the RSP kits. There is a possibility that the objective of the RSP, which is to encourage parent engagement, is not clearly explained without proper monitoring and records. Working parents may lack ample time to fully utilise the RSP with their kits. The RSP tends to be used during the parent's spare time over the weekend. Due to this reason, the statistical result shows the number of siblings who use the RSP significantly predicts the parent's engagement. This scenario shows the parent may expect the child's siblings to use the RSP together with the child compared with their parent.

This result indicated a limitation of the online training provided by PUSTAKA to train the user (parents) on how to use the RSP kits and the specific outcomes expected from the programme. Based on the feedback from the participants, there is a need to improve the RSP. Monitoring is a crucial issue to highlight. Therefore, this

study recommends that PUSTAKA revamp their physical training strategically for the RSP participants. To enhance the effectiveness of the RSP, especially in achieving the second objective of the RSP, there is room for improvement, especially in the process of RSP implementation. The team (PUSTAKA's RSP team) might do an after-the-training' evaluation to make sure the participant understood the objectives of the RSP, especially the importance of parent engagement (not only targeting reading ability at an early age).

5.5 CHILD'S VOCABULARY ABILITY

To recap the concept: in this study, "child's vocabulary ability" refers to the capacity of young children to enhance their command of language. In line with this aim, the RSP has formulated interactive kits and modules tailored to facilitate the developmental progress of early childhood education, particularly in terms of language and psychomotor skills.

5.5.1 Discussion Issues

The third objective of this study is to identify the impact of RSP on enriching the child's vocabulary ability based on demographic factors. RSP was initially invented for early childhood literacy, especially to engrain reading habits as early as newborns to 3-year-olds. The RSP is expected to not only help children read but also speak with rich vocabulary. In the process (by using the RSP), once the child can speak, they are expected to be able to say at least one syllable word, speak in a unique baby language, imitate playful sounds, imitate adults' voices, and sing along to children's songs. In addition, the child is also expected to be able to say what he or she is thinking, laugh at funny made-up words, ask questions, and count (number of alphabets, numbers, number of words, body parts, colours, shapes, names of animals, and number of objects).

5.5.2 Research Findings

In general, there was statistical evidence to show that the RSP is a beneficial programme and moderately predicts (with medium effect) the child's vocabulary

ability. The RSP found that it positively explained 16.4% of the child's vocabulary ability. Taking into account the demographic characteristics, there was statistical evidence to show that the RSP is a beneficial programme and moderately predicts (with medium effect) the child's vocabulary ability. The RSP found that it positively explained 24.8% of the child's vocabulary ability. Specifically, the child's age, marital status (parent), and date/year of receipt of the RSP kits were found to significantly predict the child's vocabulary ability. First, for the child's age, the parents agreed that the RSP is a beneficial programme for their child, who is 0 to 3 years old. It was followed by parents who are using the RSP for their children, ages 4 to 6 years old. Second, married participants were also found statistically significant on the use of RSP to predict the child's vocabulary ability compared to the single parent. Third, date/year received the RSP kits, where the participants who obtained the RSP kits between 2017 and 2019 found statistically significant use of RSP to predict the child's vocabulary ability. It was followed by those who obtained the RSP kits between 2020 and 2022. This result shows that the RSP has met its innovative idea to enhance the child's vocabulary ability at the earliest stages. However, in terms of demographic characteristics, the findings of this study show that the RSP is based on the age of the child, the marital status of the parents, and the date or year the RSP kits were received. This result implies that the RSP does positively nurture the child's vocabulary ability, possibly depending on their age, a full nest (married parent) to provide mode support to their child, and effort paid by the PUSTAKA Negeri Sarawak specifically before the COVID-19 pandemic hit this country.

The findings of this study are in accordance with recent studies that indicate storybook reading programmes that include explicit instruction and active engagement strategies, such as asking questions and making connections to prior knowledge, lead to significant gains in vocabulary knowledge among children aged 3 to 5 years old (Singer et al., 2021). Scholars (cf. Singer et al., 2021; Folsom et al., 2020; Richardson et al., 2019; Neuman et al., 2018) suggested that reading programmes can positively nurture children's vocabulary ability regardless of their age. Studies have shown that comprehensive reading programmes that include explicit vocabulary instruction and active engagement strategies, as well as storybook reading programmes that provide

opportunities for practise and application, have led to significant gains in vocabulary knowledge among children aged 3 to 6 years old, particularly those from low-income families (Singer et al., 2021; Folsom et al., 2020; Richardson et al., 2019). Additionally, home-based shared reading programmes have also been found to be effective in promoting vocabulary development among preschoolers aged 3 to 5 years old (Neuman et al., 2018).

5.5.3 Limitation and Recommendation

One of the identified limitations of the RSP programme is the insufficient instruction found in the RSP, which is addressed in achieving the objective of the programme to enhance the vocabulary ability of children. To enrich the vocabulary (and establish the ability to speak the word) among babies and toddlers in their early childhood education, it is required durable support and engagement from their guidance (parent). The rule-of-thumb in this process is to teach words with words where the parent needs to engage their baby or toddler in conversation, start reading, speak parentese (a specific method used to talk to a baby or toddler in a low or high-pitched, singsong voice matched with exaggerated facial expressions, body language, etc.), sing and rhyme, and demonstrate (movement).

All these rules of thumb can be applied by using the RSP kits. Apparently, this study foresees a limitation of the online training provided by PUSTAKA to train the user (parents), especially during the COVID-19 lockdown period (2020–2022). The findings of this study show the limitations of the RSP trainers' ability to ensure the effectiveness of the training on how to use the RSP kits and the specific outcomes expected from the programme.

Therefore, this study recommends that PUSTAKA revamp their physical training strategically for the RSP participants (physical training conducted in a comparable period of 2017 to 2019). To enhance the effectiveness of the RSP, especially in achieving the third objective of the RSP, there is room for improvement, especially in the process of RSP implementation (feedback and monitoring). The team (PUSTAKA's RSP team) might do an after-the-training' evaluation to make sure the participant understood the objectives of the RSP, especially to increase the child's

vocabulary ability (not only targeting reading ability at an early age).

5.6 CHILD'S CONFIDENCE DEVELOPMENT

A quick recap of the idea: the present study conceptualises the child's confidence development as referring to the child's developmental growth related to their gross motor skills, fine motor skills, and social and cognitive skills. All these elements are embedded in the innovative RSP kits and modules. Familiarisation of the reading materials and other developmental growth effects among babies and toddlers are found if the parent understands and applies the RSP module (started by the mother in pregnancy until the child is 3 years old). The baby and toddler are seen to gain higher levels of confidence if they can independently and confidently complete the RSP activities, as well as other reading-related activities in their daily lives.

5.6.1 Discussion Issues

The fourth objective of this study is to ascertain the impact of RSP on a child's confidence development based on demographic factors. RSP was initially invented for early childhood literacy, especially to engrain reading habits as early as newborns to 3-year-olds. The RSP is expected to not only help the child read but also encourage parent engagement, enrich vocabulary ability among the child, and develop the child's confidence, especially in regards to the reading aptitude. In the process (by using the RSP), the child is expected to be able to flip book pages correctly, hold books independently, and hold a pencil steadily. The child is also expected to be able to point out interesting pictures, draw spontaneous scribbling, and draw circular scribbling. The RSP in particular is supposedly a beneficial tool that helps identify whether the child is having a colour-blind issue, where the child is expected to be able to identify the colours, colour within a shape, and arrange the colour blocks. Additionally, to boost their confidence, the child is expected to be able to share the RSP kits with other children, use the mini shadow theatre to tell stories, and do small chores like taking his or her plate to the sink.

5.6.2 Research Findings

In general, there was statistical evidence to show that the RSP is a beneficial programme and moderately predicts (with a medium effect) the child's confidence development. The RSP was found to positively explain 15.0% of the child's confidence development. Taking into account the demographic characteristics, there was statistical evidence to show that the RSP is a beneficial programme and substantially predicts (with a large effect) the child's confidence development. The RSP was found to positively explain 45.3% of the child's confidence development. Specifically, child's age, child's gender, date/year received the RSP kits, and number of child's siblings who are using the RSP kits were the only four demographic characters found to significantly predict a child's confidence development. First, for the child's age, the parents agreed that the RSP is a beneficial programme in developing reading confidence for their child who is older than 7 years old. It was followed by parents who are using the RSP for their children ages 0 to 3 and 4 to 6 years old. Second, for the child's gender, the participants of the study agreed that the RSP is a beneficial programme in developing reading confidence for their child who is older than 7 years old. It was followed by parents who are using the RSP for their male child better than their female child. Third, date/year received the RSP kits, where the participants who obtained the RSP kits between 2017 and 2019 found statistically significant use of RSP to predict the child's confidence development. It was followed by those who obtained the RSP kits between 2020 and 2022. Fourth, the participants who have more than one child who is using the RSP kits agreed that the RSP is a beneficial programme to predict the child's confidence development compared to the child without other siblings who are using the RSP kits.

The findings of this study are compatible with prior studies which confirmed that the RSPs is a beneficial programme for the development of children's confidence in reading. Studies have shown that the Reading Seeds initiatives and an online reading programme designed for children aged 3 to 8 years old have led to significant improvements in children's reading skills and confidence (McGowan et al., 2020; St-Laurent et al., 2019). Furthermore, research has demonstrated that children who use Reading Seeds have reported a feeling of confidence in their reading abilities and have shown increased engagement and enjoyment in reading (McGowan et al., 2020).

Therefore, it can be concluded that Reading Seeds is a valuable tool for promoting children's confidence and motivation in reading.

In particular, the RSP has a significant impact on a child's confidence development as perceived by the participants, which can help children develop their confidence, particularly in reading, before they enter formal education. According to a study by St-Laurent, Gagnon, and Fortin (2019), using Reading Seeds led to significant improvements in both the reading skills and motivation of children aged 4-6 years old. These improvements were particularly pronounced among children who were not yet attending school, indicating that the programme may be especially beneficial in preparing children for formal education. Furthermore, another study by McGowan, Charlesworth, and White (2020) found that children who used Reading Seeds reported feeling more confident in their reading abilities and showed increased engagement and enjoyment in reading.

Scholars (cf. Tomopoulos et al., 2006; Guthrie et al., 2004) stated important notes in developing a child's reading confidence and measures of reading comprehension, reading motivation, and reading strategies. In particular, reading aloud and the provision of toys are found to be associated with better child cognitive and language development as a result of parent-child interaction (Tomopoulos et al., 2006). In addition, the engagement perspective of reading development resulted from an instructional framework (combining motivational support and strategy instruction) (Guthrie et al., 2004).

5.6.3 Limitation and Recommendation

The findings of this study suggest that the RSP can play a role in fostering the children's confidence and motivation in reading, which may be particularly important for children who are just starting to learn to read. This result implies that encouragement and parent support are key motivational elements to engrain early childhood literacy, especially in developing reading confidence among toddlers. However, this study identified a limitation of the RSP programme, especially in regards to the child's confidence development. This study found that there was insufficient instruction in the RSP to achieve the objective of the programme to ascertain the confidence development of

children. There are possible issues connected to the RSP trainers' ability to ensure the effectiveness of the RSP training in explaining the objectives to meet and/or specific outcomes expected from the programme to the participants.

Therefore, this study recommends that PUSTAKA revamp their physical training strategically for the RSP participants (physical training conducted in a comparable period of 2017 to 2019). The findings of the study prove that the RSP successfully achieved its objective of inculcating a reading habit in children at an early age. However, the other three objectives—encouraging parents' engagement, enriching vocabulary ability, and developing confidence—required further instructional revision. Therefore, to ensure the effectiveness of the training delivered, the organiser (PUSTAKA Negeri Sarawak) would find it beneficial to provide the participant with attractive instructional material. According to Feldman and Case (1997), self-directed learning (self-instructional audio-visual child-care materials) has proven to help teach children basic care, health, and safety skills, especially among parents who have problems with intellectual disabilities (ID). Therefore, instead of conventional training given to the parents about the RSP, audio-visual materials significantly improve its effectiveness.

To enhance the effectiveness of the RSP, especially in achieving the fourth objective of the RSP, there is room for improvement, especially in the process of RSP implementation (feedback and monitoring). The team (PUSTAKA's RSP team) might do an after-the-training' evaluation to make sure the participant understood the objectives of the RSP, especially to increase the child's confidence development (not only targeting reading ability at an early age). In addition, an instruction for a reward system could encourage the participants to give their time and hearts to this RSP. A monetary or non-monetary reward could be offered to the participants upon completion of the RSP or achieving preset targets or goals.

5.7 RSP EXECUTION AND INTERVENTION

A quick recap of the idea: the present study conceptualises the programme's execution, referred to in this study as the benefits of the programme (the RSP and the RSP kits), was perceived by the participants. Additionally, the programme's intervention

referring to the initiatives taken by the programme's organizer (PUSTAKA Negeri Sarawak) to ensure the effectiveness of the RSP.

5.7.1 Discussion Issues

This study assesses the extent of the RSP in encouraging the public, especially the targeted group (parents with children), to participate in the programme and appraises the content of the RSP kits. In addition, it is important to identify the role of the programme's organiser (PUSTAKA Negeri Sarawak) in taking the necessary intervention initiatives. The intervention initiatives include trekking the RSP participants for future references (various aspects such as the impact of the RSP, the programme's feedback and improvements, and potential participants for other in-house or out-bound programmes). It is expected that PUSTAKA checks and/or conducts follow-up on the child's literacy progress and/or that the participants voluntarily inform PUSTAKA of their child's literacy progress.

The RSP is designed to provide access to quality early literacy materials, develop reading skills in newborns, make reading more enjoyable for parents and children, expose children to a greater number of words through books, and groom them for more precise oral communication. Furthermore, the RSP kits are perceived as easy to use, including the RSP module for parents' reading friends, the growth development checklist, the growth charts that help monitor the child's development, the clear usage of language used in all the materials, the attractive reading materials, and the communicative aspects of the RSP materials.

Thus, the fifth objective of this study is to determine the RSP's implementation and participation in the programme. Specifically, this study also attempts to determine the extent of the programme (RSP and RSP's kits) and the intervention that contributes to RSP participation.

5.7.2 Research Findings

In a broader context, the statistical analysis demonstrates that the effectiveness of the RSP and its associated kits in predicting program participation is relatively weak, with only a small effect observed. Specifically, the RSP's predictive capacity accounts for

just 2.1% of participation in the program. This suggests that most RSP participants engage in the program primarily through proactive outreach efforts by the organizer, PUSTAKA Negeri Sarawak, which involves various in-house or outbound events.

Interestingly, participants who are part of the RSP tend to statistically disagree that the program's intervention significantly influences their participation. In contrast, the study's findings indicate that PUSTAKA Negeri Sarawak's intervention, which involves follow-up actions, has minimal impact on program participation, with an explanation of only 2.2%. Notably, the program organizer does not demonstrate a concerted effort to track or monitor participants' progress after enrollment in the RSP. Moreover, participants are not obligated to provide feedback or updates to PUSTAKA on their child's literacy development.

Conversely, some participants expressed the sentiment that once their children completed all RSP activities, there was little incentive for them to continue using the RSP kits on an ongoing basis. In the participants' perception, the RSP seemed to function as a "one-off" initiative rather than an ongoing engagement. Despite the presence of a user-friendly manual detailing program execution, respondents conveyed a sense of uncertainty about what comes next once the program concludes.

5.7.3 Limitation and Recommendation

The Reading Seed Programme (RSP) is an early childhood reading programme that was initiated by PUSTAKA Negeri Sarawak with the aim of promoting reading culture among Malaysians. The positive effects of the RSP have been demonstrated in the study, where the programme has a significant impact on the children's reading habits, parents' engagement, vocabulary ability, and confidence development. In terms of demographic elements, the RSP has been found to have a huge impact on reading habits, followed by confidence development, vocabulary ability, and parents' engagement.

Therefore, it is a sign that the programme needs further informative and interactive efforts to promote and inform the public about its existence. To reinforce this, the participants responded that PUSTAKA Negeri Sarawak has never checked on their child's literacy progress (neither formally nor informally) and suggested that they

should conduct follow-up on their child's literacy progress (every 2 years). The participants have suggested that Pustaka Negeri Sarawak should give easier access to the parents to provide their immediate responses towards any programmes organised by Pustaka, which will ease Pustaka Negeri Sarawak's collection of this information. To add to this, the participants have also suggested that more comprehensible modules and continuous evaluation can be developed by interviewing the parents or sharing recordings of their children's involvement in completing the RSP at home.

In addition, more promotions on Reading Seeds should be extended to rural areas, as many parents do not know about this programme. The organiser is also advised to approach mothers at the mother-and-child clinics to brief them on RSP and its benefits. Moreover, awareness of the existence of such a programme should be increased at the clinic to inculcate better reading habits among the communities, especially in rural areas.

In response to these findings, this study suggests that PUSTAKA may need to develop a more robust monitoring system to track the participants' progress and ensure that they will continuously use the RSP kits to promote their child's reading development. It is strongly recommended that PUSTAKA develop a tracking system to periodically assess the progress of participants. This tracking system could take the form of an online or offline system that recognises participants and checks their progress periodically, such as every two years. An attractive reward system could also be offered to those who meet the RSP objectives, which could encourage participants to continue using the RSP kits even after their child has completed all the activities. Furthermore, PUSTAKA could also organise specific RSP programmes such as workshop and check-up session where participants can visit the library to test their child's achievements and parent's understanding and involvement, which could motivate participants to continue using the RSP kits.

It is essential for PUSTAKA Negeri Sarawak to continuously empower the RSP programme to become a global brand of early childhood reading programmes. One way to achieve this goal is to diversify the use of the RSP kits for other objectives, such as diagnosing or detecting learning disabilities among toddlers and regulating toddlers' emotions. In addition, PUSTAKA may need to update or add more content

to the RSP kits to ensure that the programme remains relevant and effective. For example, PUSTAKA could update the RSP kits with new books, activities, or exercises that align with the latest research on early childhood development. In response to the probability of financial constraints, PUSTAKA Negeri Sarawak might consider establishing a Special Business Unit (SBU) for the commercialization of RSP and establishing international collaboration.

5.8 CONCLUSIONS

The Reading Seed Programme (RSP) by PUSTAKA Negeri Sarawak has achieved its objectives, as proven by the statistical evidence obtained in this research project. The study found that RSP has a significant impact on reading habits, parental engagement, children's vocabulary abilities, confidence development, and execution towards programme participation. For instance, children who participated in RSP showed a marked improvement in their vocabulary abilities, as evidenced by their ability to understand and use new words. The study also found that RSP has a significant impact on different demographic elements such as age, gender, ethnicity, and socioeconomic status. For example, the programme had a significant impact on reading habits, confidence development, vocabulary abilities, and parental engagement across all demographic groups.

To ensure that RSP continues to be the main nationwide and potentially worldwide early literacy reading programme, PUSTAKA Negeri Sarawak should retain this award-winning programme. The study recommends that PUSTAKA Negeri Sarawak continuously empower RSP to become a global brand of early childhood reading programmes. For instance, the programme could be diversified to diagnose or detect early learning disabilities among toddlers and to regulate toddlers' emotions.

Moreover, the study recommends that the programme's organiser update and/or add more content to the RSP. For instance, new and interesting reading materials could be included to keep children engaged and interested in the programme. Additionally, it is critical for the programme's organiser to develop a tracking system to trace the achievements and progress of the programme's participants. In this way, PUSTAKA Negeri Sarawak can monitor the effectiveness of the programme and make necessary

improvements and adjustments.

In conclusion, the RSP by PUSTAKA Negeri Sarawak has the potential to positively impact children's reading development, parent engagement, and confidence development. However, to improve the programme's effectiveness, there is a need to address individual learning capabilities, incorporate updates suggested by participants, and clarify the programme's attitudinal components and targeted outcomes. Updating the programme can help create an inclusive environment for all participants and encourage more parents to enrol their children in the programme. First and foremost, the findings of this research demonstrate that the RSP is an effective reading programme for early literacy, regardless of the participants' demographic background. However, PUSTAKA Negeri Sarawak needs to improve its monitoring system to ensure that the participants will continue to use the RSP kits and that their children's progress is tracked periodically. By doing so, PUSTAKA can retain the award-winning programme of RSP as the main nationwide early literacy reading programme and support the world's agenda of high literacy nationals.

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Appendix

Questionnaire

Impact Study on Reading Seed Program by PUSTAKA Negeri Sarawak

Dear respondent:

We're conducting this research to study the impact of Reading Seed Program (RSP) on your child's early literacy. We would like to hear from you **about your child's literacy development**. This will help us assess the program and provide recommendations for strategic improvements. This survey should only take 20 minutes, and your responses are completely anonymous.

Should you have any queries about this survey, please do not hesitate to contact us:

Responden yang dihormati:

*Kami sedang menjalankan penyelidikan ini untuk mengkaji kesan Reading Seed Program (RSP) terhadap anak anda. Kami ingin mendapat pandangan **tentang perkembangan literasi anak anda**. Ini akan membantu kami menilai program dan memberikan cadangan untuk strategi penambahbaikan. Tinjauan ini hanya mengambil masa 20 minit dan jawapan anda adalah rahsia.*

Untuk sebarang pertanyaan tentang tinjauan ini, sila hubungi kami:

Awang Rozaimie Awg Shuib, Ph.D [awgrozaimie@uitm.edu.my; +60198887801]
Norseha Unin, Ph.D
Abdul Ismail Hj. Mohd Jawi, Ts.Aiza Hj.Johari

We really appreciate your sincere feedback!

Maklumbalas ikhlas daripada anda amatlah dihargai!

Confidentially of Responses / *Kerahsiaan maklumbalas*

Any information that is obtained in connection with this study will remain confidential. Once you return the questionnaire, there is no way at any circumstances that we can identify the individual. Additionally, all data from the survey will be reported in numerical form using aggregated categories and will be used solely for this research purpose.

PARTICIPATION IN RESEARCH IS VOLUNTARY. You are free to decline as a survey respondent, or to withdraw from it at any point. Your decision as to whether or not to volunteer in this study will have no influence on your present or future status as a participant of the Reading Seed Program.

Sebarang maklumat yang diperolehi berkaitan dengan kajian ini akan kekal sulit. Sebaik sahaja anda memulangkan soal selidik, tidak ada cara untuk kami mengenal pasti individu tersebut. Selain itu, semua data daripada tinjauan akan dilaporkan dalam bentuk angka menggunakan kategori agregat dan akan digunakan untuk tujuan penyelidikan ini sahaja.

PENYERTAAN DALAM PENYELIDIKAN ADALAH SECARA SUKARELA. Anda boleh menarik diri sebagai responden pada bila-bila masa. Penglibatan anda dalam kajian ini tidak akan mempengaruhi status anda sebagai peserta dalam Reading Seed Program.

This questionnaire comprises of SIX (6) sections. Please answer ALL items in this survey form.

We would like to hear from you about your child's literacy development.

Soal selidik ini mengandungi ENAM (6) bahagian. Sila jawab ke semua pernyataan yang dikemukakan. Kami ingin mendapat pandangan anda tentang perkembangan literasi anak anda.

[SECTION 1] – RESPONDENT'S DEMOGRAPHIC DETAILS

A. RESPONDENT'S DEMOGRAPHIC

DEMOGRAFI RESPONDEN

1. Age of Respondent : specify:...
Umur Responden
2. Gender of Respondent : Male
Jantina Responden : Female
3. Marital status : Married
Status perkahwinan : Single Parent
: other, specify:...
4. Ethnicity : specify:...
Etnik
5. Highest Qualification : University Degree : Secondary School
Kelayakan akademik tertinggi : Diploma : Primary School
: Certificate : other, specify:
6. Employment : Public Sector
Pekerjaan : Private Sector
: Self-Employed/Small Business
: Unemployed/Housewife
: Other, specify:
7. Household Income : Less than RM1000
Pendapatan isirumah : RM1000 - RM3999
: RM4000 - RM8500
: Above RM8500
8. Respondent's reading habit : Scale: 0 (none) ----- 10 (very frequently)
Tabiat Membaca Responden : Skala: 0 (tiada) ----- 10 (sangat kerap)
(kekerapan mencari sesuatu bahan bacaan)

B. YOUR CHILD'S DETAILS

MAKLUMAT ANAK ANDA (anak yang menyertai RSP)

1. Child's Birth Month _____ Year _____
Tahun kelahiran anak
2. Child's Place of Birth : Government Clinic ...
Tempat kelahiran anak : Private Hospital ...
: Other: Specify : ...

3. Child's Gender : Male
Jantina anak : Female
4. Current Location : Kuching
Lokasi semasa : Samarahan
: Lundu
5. a) RSP Package from : Health Clinic *Klinik Kesihatan*
Pakej set RSP diperolehi : PUSTAKA
dari : Other/Specify:
- b) How did you join RSP? : Voluntary *Sukarela*
Bagaimana anda menyertai : Invited *Dijemput*
RSP? : Selected *Dipilih*
: Compulsory *Wajib*
6. Date/Year received : specify:
Tarikh/tahun penerimaan set
RSP
7. Who influences your child to read? *Scale: 0 (none) ----- 10 (highly influenced)*
Skala: 0 (tiada) ----- 10 (sangat mempengaruhi)
Siapa mempengaruhi anak anda : Self driven *Galakan Sendiri*
membaca? : Siblings *Adik Beradik*
: Parents *Ibu/Bapa*
: Other family members *Lain2 ahli*
keluarga : Friends *Rakan-rakan*
: Neighbors *Jiran tetangga*
: Teachers *Guru-Guru*
8. Child's reading habit *Scale: 0 (none) ----- 10 (very frequently)*
Tabiat Membaca anak *Skala: 0 (tiada) ----- 10 (sangat kerap)*
(kekerapan mencari sesuatu
bahan bacaan)
9. How many other child's : 0
siblings have used the RSP kit? : 1
Berapa orang adik-beradik lain : 2
pernah menggunakan kit RSP? : 3
10. Facilities (source of reading) : Internet
available at home : Computer/Laptop/Tab
Kelengkapan (sumber bacaan) : Smart Phone
yang ada dirumah : Television
: Astro
: Radio
11. Does PUSTAKA checks on : Never *Tiada*
your child literacy progress. : Once *Sekali*
Adakah PUSTAKA menyemak : Twice *Dua Kali*
kemajuan literasi anak anda : Three times *Tiga kali*

12. Do you ever voluntarily
inform PUSTAKA on your child
literacy progress.

*Adakah anda pernah secara
sukarela memaklumkan pihak
PUSTAKA mengenai kemajuan
literasi anak anda?*

: More than 3 times	<i>Lebih dari 3 kali</i>
: Never	<i>Tiada</i>
: Once	<i>Sekali</i>
: Twice	<i>Dua Kali</i>
: Three times	<i>Tiga kali</i>
: More than 3 times	<i>Lebih dari 3 kali</i>

[SECTION 2] – READING HABIT - Early Reading Practices at Home

TABIAT MEMBACA - Amalan Membaca Awal di Rumah

0 ----- 1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7 ----- 8 ----- 9 ----- 10

0: not applicable, 1: strongly disagree

strongly agree

0: tidak berkenaan, 1: sangat tidak bersetuju

sangat bersetuju

We would like to hear from you about your child’s literacy development.

State the scale for the statement that is most applicable to you on the scale from 0 (Not Applicable / strongly disagree) to 10 (strongly agree).

Kami ingin mendapat pandangan anda tentang perkembangan literasi anak anda.

Nyatakan skala untuk pernyataan yang paling berkaitan dengan anda berdasarkan skala 0 (tidak berkenaan / sangat tidak bersetuju) sehingga 10 (sangat bersetuju).

- A PRINTED BOOKS/BUKU BERCETAK**
- My child /Anak saya:**
- 1 Shows interest in books
Menunjukkan minat terhadap buku.
- 2 Is attracted to interesting pictures in books
Tertarik kepada gambar yang menarik di dalam buku.
- 3 Likes it a lot when I read story books to him/her
Sangat suka apabila saya membaca buku cerita kepadanya.
- 4 Brings his/her favorite book to me to be read
Membawa buku bacaan kegemarannya kepada saya untuk dibaca.
- 5 Enjoys looking at pictures in printed books
Seronok melihat gambar2 dalam buku bercetak
- 6 Reads books on his/her own with encouragement
Membaca buku dengan sendirinya dengan galakan yang diberikan.
- 7 Can read along together
Boleh membaca bersama-sama.
- 8 Frequency of your child reading from PRINTED books in a typical week (times/week)
- Kekerapan anak anda membaca buku bercetak dalam tempoh seminggu (bilangan dalam seminggu)*
- 0 – 1 2 – 4 5 – 7 8 – 9 more than 10 books
- B DIGITAL MEDIA/MEDIA DIGITAL**
- My child /Anak saya:**
- 1 Enjoys looking at stories on a screen
Seronok melihat cerita pada skrin
- 2 Reads longer on screen than on printed book
membaca lebih lama pada skrin berbanding buku bercetak
- 3 uses the screen more for edutainment than for reading
menggunakan skrin untuk didikhibur lebih daripada membaca
- 4 Prefers an interactive digital media for reading.

- 5 Encouraging my child to identify the pictures
Menggalakkan anak saya untuk mengenalpasti gambar-gambar.
- 6 Doing follow up activities related to the stories
Melakukan aktiviti susulan berkaitan dengan cerita

[SECTION 4] – VOCABULARY ABILITY (Language Skills)

KEBOLEHAN PERBENDAHARAAN KATA (Kemahiran Bahasa)

0 ----- 1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7 ----- 8 ----- 9 ----- 10

0: not applicable, 1: strongly disagree

strongly agree

0: tidak berkenaan, 1: sangat tidak bersetuju

sangat bersetuju

We would like to hear from you about your child’s literacy development.

State the scale for the statement that is most applicable to you on the scale from 0 (Not Applicable / strongly disagree) to 10 (strongly agree).

Kami ingin mendapat pandangan anda tentang perkembangan literasi anak anda.

Nyatakan skala untuk pernyataan yang paling berkaitan dengan anda berdasarkan skala 0 (tidak berkenaan / sangat tidak bersetuju) sehingga 10 (sangat bersetuju).

A WORDS/Perkataan: My child /anak saya:

- 1 Can say one syllable word
Boleh menyebut satu suku kata perkataan
- 2 Can speak in a unique baby language
Boleh bercakap dalam bahasa bayi yang unik
- 3 Can imitate playful sounds
Boleh meniru bunyi main-main
- 4 Can imitate adults' voices
Boleh meniru suara orang dewasa
- 5 Can sing along to children songs
Boleh menyanyi bersama lagu kanak-kanak
- 6 Can say what he/she is thinking
Boleh memberitahu apa yang dia fikirkan
- 7 Can laugh at funny made-up words
Boleh ketawa dengan kata-kata lucu yang dibuat-buat
- 8 Can ask questions
Boleh bertanya soalan
- 9 Can say how many alphabets?
Boleh menyebut berapa bilangan abjad?
- 0 – 1 2 – 4 5 – 7 8 – 9 more than 10

- 1 Can count how many numbers?
Boleh mengira berapa bilangan nombor?
- 0 – 1 2 – 4 5 – 7 8 – 9 more than 10

- 1 Can say how many number of words.
Boleh menyebut berapa bilangan perkataan?
- 0 – 1 2 – 4 5 – 7 8 – 9 more than 10

- 1 Can tell how many body parts.
2 *Boleh memberitahu berapa bilangan anggota badan?*
 0 – 1 2 – 4 5 – 7 8 – 9 more than 10
- 1 Can tell how many colors?
3 *Boleh beritahu berapa bilangan warna?*
 0 – 1 2 – 4 5 – 7 8 – 9 more than 10
- 1 Can tell how many number of shapes?
4 *Boleh memberitahu berapa bilangan bentuk?*
 0 – 1 2 – 4 5 – 7 8 – 9 more than 10
- 1 Can tell how many name of animals?
5 *Boleh memberitahu berapa nama haiwan?*
 0 – 1 2 – 4 5 – 7 8 – 9 more than 10
- 1 Can tell how many number of objects.
6 *Boleh memberitahu berapa bilangan objek?*
 0 – 1 2 – 4 5 – 7 8 – 9 more than 10

[SECTION 5] – CONFIDENCE DEVELOPMENT (PSYCHOMOTOR SKILLS)

PEMBANGUNAN KEYAKINAN (Kemahiran Psikomotor)

0 ----- 1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7 ----- 8 ----- 9 ----- 10

0: not applicable, 1: strongly disagree

strongly agree

0: tidak berkenaan, 1: sangat tidak bersetuju

sangat bersetuju

We would like to hear from you about your child's literacy development.

State the scale for the statement that is most applicable to you on the scale from 0 (Not Applicable / strongly disagree) to 10 (strongly agree).

Kami ingin mendapat pandangan anda tentang perkembangan literasi anak anda.

Nyatakan skala untuk pernyataan yang paling berkaitan dengan anda berdasarkan skala 0 (tidak berkenaan / sangat tidak bersetuju) sehingga 10 (sangat bersetuju).

My child / anak saya:

- 1 Can flip book pages correctly
Boleh menyelak muka surat buku mengikut turutan yang betul
- 2 Can hold books independently
Boleh memegang buku dengan sendiri
- 3 Can point to interesting pictures
Boleh tunjuk gambar yang menarik
- 4 Can hold a pencil steadily
Boleh memegang pensel dengan tegap

- | | | |
|---|--|--------------------------|
| 5 | Can draw spontaneous scribbling
<i>Boleh melukis contengan secara spontan</i> | <input type="checkbox"/> |
| 6 | Can draw circular scribbling
<i>Boleh melukis contengan secara membulat</i> | <input type="checkbox"/> |
| 7 | Can identify colors
<i>Boleh mengenal warna</i> | <input type="checkbox"/> |
| 8 | Can color within a shape
<i>Boleh mewarna dalam lingkungan bentuk</i> | <input type="checkbox"/> |
| 9 | Can arrange color blocks
<i>Boleh menyusun blok warna</i> | <input type="checkbox"/> |
| 1 | Can share with other children | <input type="checkbox"/> |
| 0 | <i>Boleh berkongsi dengan kanak-kanak lain</i> | <input type="checkbox"/> |
| 1 | Can use the mini shadow theater to tell stories | <input type="checkbox"/> |
| 1 | <i>Boleh menggunakan teater bayangan mini untuk bercerita</i> | <input type="checkbox"/> |
| 1 | Can do small chores like taking his/her plate to the sink | <input type="checkbox"/> |
| 2 | <i>melakukan kerja-kerja mudah seperti membawa pinggannya ke sinki</i> | <input type="checkbox"/> |

[SECTION 6] – READING DEVELOPMENT PROGRAM

PROGRAM PEMBANGUNAN MEMBACA

0 ----- 1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7 ----- 8 ----- 9 ----- 10

0: not applicable, 1: strongly disagree

strongly agree

0: tidak berkenaan, 1: sangat tidak bersetuju

sangat bersetuju

We would like to hear from you about your child’s literacy development.

State the scale for the statement that is most applicable to you on the scale from 0 (Not Applicable / strongly disagree) to 10 (strongly agree).

Kami ingin mendapat pandangan anda tentang perkembangan literasi anak anda.

Nyatakan skala untuk pernyataan yang paling berkaitan dengan anda berdasarkan skala 0 (tidak berkenaan / sangat tidak bersetuju) sehingga 10 (sangat bersetuju).

A Reading Seed Kit

- | | | |
|---|--|--------------------------|
| 1 | I know how to use all the materials in the kit
<i>Saya tahu penggunaan setiap bahan di dalam kit RSP</i> | <input type="checkbox"/> |
| 2 | I know how to use the RSP module for Parents Reading Friends
<i>Saya tahu cara menggunakan Modul RSP Ibu Bapa Rakan Membaca</i> | <input type="checkbox"/> |
| 3 | I know how to use the growth development checklist
<i>Saya tahu menggunakan Senarai Semak Perkembangan anak</i> | <input type="checkbox"/> |
| 4 | The growth chart helps to monitor my child’s development
<i>Carta pertumbuhan membantu saya memantau perkembangan anak saya</i> | <input type="checkbox"/> |
| 5 | Language used in all the materials are clear
<i>Bahasa digunakan bagi setiap bahan dalam kit RSP ini adalah jelas</i> | <input type="checkbox"/> |
| 6 | Reading materials attract my child’s interest
<i>Bahan bacaan menarik minat anak saya</i> | <input type="checkbox"/> |
| 7 | RSP materials help me to communicate with my child
<i>Bahan-bahan RSP membantu saya berkomunikasi dengan anak saya</i> | <input type="checkbox"/> |

B *I believe that the Reading Seed Program*

- Saya percaya bahawa RSP*
- | | | |
|---|---|--------------------------|
| 1 | Provides access to quality early literacy materials
<i>Menyediakan akses kepada bahan literasi awal yang berkualiti</i> | <input type="checkbox"/> |
| 2 | Gives me the skill to read to my newborn
<i>Memberi kemahiran membaca kepada bayi yang baru lahir</i> | <input type="checkbox"/> |
| 3 | Makes reading enjoyable for me and my child
<i>Menjadikan aktiviti membaca seronok bagi saya dan anak saya</i> | <input type="checkbox"/> |
| 4 | Exposes my child to greater number of words through books
<i>Mendedahkan lebih banyak perhatian kepada anak saya melalui buku</i> | <input type="checkbox"/> |
| 5 | Grooms my child for more precise oral communication
<i>melatih anak saya untuk memperluaskan menggunakan komunikasi lisan yang lebih tepat</i> | <input type="checkbox"/> |

6 What do you suggest to improve the implementation of RSP by PUSTAKA? *Apa cadangan anda untuk menambah-baik pelaksanaan RSP oleh PUSTAKA?*

7 What do you suggest to improve the use of RSP kits among participants? *Apa cadangan anda untuk menambah-baik kegunaan kit RSP dikalangan peserta?*

8

How often should PUSTAKA conduct follow-up on your child's literacy progress?
Berapa kerap pihak PUSTAKA harus adakan tindakan susulan untuk kemajuan literasi anak anda?

Never (0)

Not Often (Every 2 yrs)

Often (Every year)

Frequent (Every 6 months)

Very Frequent (Every 4 months)

Thank You.

- End of Survey -

Thank you very much for your kind participation.

Online questionnaire:

(Ref:https://docs.google.com/forms/d/e/1FAIpQLSfb0YtnYIrRtfXEkeDdcO_8fENYt8_R6xRspcTRUobBbuSzw/viewform?usp=pp_url).

