

The Reading Seed Program (RSP)’s Efficacy in Fostering Toddlers’ Reading Habits in their Early Childhood Literacy

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ABSTRACT

The Reading Seed Programme (RSP), an in-house literacy program inaugurated by Sarawak's State Library (PUSTAKA Negeri Sarawak, Malaysia), has the potential to become the country's primary literacy initiative, particularly in terms of fostering a reading culture. The purpose of this paper is to empirically establish the reliability of survey measures as well as the feasibility of this toddler literacy program. The findings revealed that RSP capable enculturates effectively and has a significant positive impact on toddlers' reading ability. Nonetheless, the early childhood reading literacy program must consider each learner's unique learning style, incorporate updates or monitoring systems, improve training, develop a strategic plan outlining RSP outcomes, and clearly communicate the program's attitudinal components in relation to the desired results.

Keywords: early childhood, literacy, reading program, reading habit, toddler

INTRODUCTION

The adult literacy rate is the proportion of adults aged fifteen and up who can read, write, and comprehend a short, straightforward statement about their daily lives.

According to this criterion, 5.36 percent of Malaysians (1.6 million out of 30.27 million Malaysians as of 2015) are illiterate (UIS: UNESCO's Institute for Statistics). However, whereas Malaysia's literacy rate was 94.85% in 2020 (Macrotrends: Malaysia Literacy Rate 1980-2020), the global literacy rate in 2018 was 86.30% (ref: ourworldindata.org/literacy). Undeniably, reading and writing provide significant influence on literacy instruction in schools (Norris & Phillips, 2003). Reading literacy is a lifelong practice, and reading capabilities comprise different stages of reading (Majzub & Kurnia, 2010). Cultivating reading ability from an earlier age has fostered reading habits to determine how much a person reads, how often they read, when they do it, and what they read. Effective reading habits are important to verify how a person comprehends knowledge and applies it to their life. According to Bronny (2016), the reading habit cultivation campaign in Malaysia should consider the readers' participation in reading activities organized by the local, state, and/or national libraries. Many factors influence reading habits, including interest, time, information availability, and library attempts to retain active users and cultivate more avid readers (Norseha, Sali, & Mahdi, 2015). According to scholars (Mohini, Roshanida, Lee, et al., 2012; Teh, 2013), reading is essential for healthy intellectual growth, which in turn motivates creative and imaginative minds. Reading broadens our knowledge while also developing maturity and character, sharpening our thinking, and broadening our awareness of a variety of concerns, such as social, economic, and political challenges.

Reading meticulously is a process of thinking posited by Cartwright, Barber, Zumbrunn and Duke (2023), in which reading competence involves a dynamic and alteration of the cognitive process. The knowledge that is received and taught is cognitively assimilated to produce comprehension, which in turn directs a specific behavior. Particularly, thinking skills (Rahmawati, 2024) and reading habits (Yana, 2024) are crucial to empower children to navigate a complex task and gain knowledge, comprehension, decision-making, and life experiences. For the non-native English-speaking learners, understanding and comprehending information is a challenging task. Thus, reading skills are essential for children's knowledge acquisition, comprehension, and cognitive abilities. Reading proficiency has a significant impact on academic performance, which refers to the capacity to comprehend written material and achieve certain levels of educational achievement. At school age, children's academic achievement is strongly related to the amount of knowledge they have acquired (Billmeyer, 2009; Cartwright et al., 2023). Making reading as a habit is essential for cognitive development, along with other psychomotor, behavioral, and living skills, particularly among toddlers. Habit is defined as the process that utilizes a learned stimulus-response association to predict and explain behavior (Gardner 2015). As a result, consistently encouraging toddlers to read as part of their early childhood literacy program will improve their analytical and writing skills, preparing them for school.

EFFICACY IN READING HABITS

Theoretically, psychologist Albert Bandura (1977) defines self-efficacy as a person's belief in their ability to complete a task or achieve a goal. Experience, social persuasion, and physiological responses all contribute to the development of self-efficacy, which leads to specific behaviors and performance. Efficacy reflects an individual's confidence in his or her ability to control and manage environmental influences. The understanding of self-efficacy has been enhanced by the establishment of Social Cognitive Theory, which defines efficacy as dynamic processes influenced by environmental, behavioral, and personal factors (Bandura, 1997). The interaction between self and its socio-eco-cultural variation (Rozaimie, 2018) constantly influenced one's beliefs, supplemented by "mastery experiences, verbal persuasions, vicarious experiences, and physiological and emotional states (Bandura, 1997)".

Delineated from Bandura's self-efficacy deposition, cultivating reading ability is dependent on environmental forces, with the reading program and parental role being critical to creating knowledge and experience, particularly among toddlers in their early childhood literacy development stages. Thus, specific designed tasks, social persuasion, reflection, and emotional regulation all have a significant impact on self-efficacy (Schwanenflugel & Knapp, 2015, p. 39). Scholars (Lee & Zentall, 2017; Schwanenflugel & Knapp, 2015; Smith, Smith, Gilmore, & Jameson, 2012) argue that self-efficacy in reading refers to general-level beliefs about one's reading abilities, as measured by confidence and perceived skills in reading activities. Toddlers' belief and confidence in understanding, interpreting, and participating in reading activities reflected their reading behavior and, ultimately, their reading accomplishments (Amin & Oudah, 2024; Boakye, 2015; Henk & Melnick, 1995; Ramiah, & Maniam, 2024). The process of cultivating reading habits encapsulates how toddlers' self-efficacy fosters their reading capabilities, as well as their learning and engagement in reading activities and expected outcomes.

Effective early childhood literacy programs are enormous interventions and initiatives for reaffirming toddlers' beliefs and trust in their thoughts and conscious behaviors. The home environment, particularly toddler interactions with their parents, siblings, and other adults, as well as the childcare environment, have a significant direct impact on their cognitive, emotional, and behavioral development (Rozaimie, 2024). Thus, the home and childcare reading environments play an important role in developing efficacy and reading habits in toddlers. Foremost, parents should ensure that their children are ready to read before encouraging them to develop reading habits. When they are ready to read, it will aid in instilling reading habits in children, particularly those who prefer electronics and technology. Teh (2013) and Zhang (2024) emphasized that reading readiness is the process of preparing a child for reading, encouraging the kid to

read, and engaging the child in reading. Reading readiness, according to Akubuilu Okorie, Onwuka, and Uloh-Bethels (2015) and Joseph (2002; 2008), comprises the maturation of all cerebral, physical, and socio-emotional aspects involved in the reading process.

DeBaryshe (1993) highlighted that the age at which home reading routines begin is a significant predictor of language skills, and a reading-deficient home environment has a poor impact on school preparation and brain development in early children (Hutton, 2015). Conferring to Rajaratnam (2013), learning to read should begin long before a kid reaches school, and there is a strong link between the growth of a child who establishes reading habits at a young age and the level of success that he or she will accomplish later in life. It is also noted that infants who have the pre-reading skill of distinguishing 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, in addition to being better at learning to read at four and five years of age. Given the preceding scenario, the purposes of this paper are to validate a measure scale and feasibility of the Sarawak's State Library (*PUSTAKA Negeri Sarawak* (PNS))'s Reading Seed Programme (RSP) on enculturating toddlers' reading habits.

READING SEED PROGRAMME (RSP)

PNS has conducted the Family Literacy Program in three phases over the years: Phase 1 (Born to Read: 2001-2011); Phase 2 (Every Child Ready to Read: 2012-2015); and Phase 3 (Reading Seeds: 2015-present). Born to Read is an American-born reading development program that was intended to provide the spark that will kindle a love of books, libraries, and learning in children as young as three. The RSP, inspired by the Born to Read program, was created, and launched in Sarawak in 2016 (Version 1.0). Version 1.0 of the RSP was created in 2016 for the reading awareness initiative. Version 2.0 of the RSP (2017), which included medical specialists, includes child growth factors. In 2018, RSP version 3.0 was improved with panels of early childhood education specialists and tested within number of focus group sessions (toddlers, children, and parents). Physical growth and nutritional status, developmental growth (gross motor abilities, fine motor skills, language and hearing skills, social and cognitive skills), literacy development, vaccinations, and screen time are all covered in the RSP. RSP is an ongoing early literacy campaign that has changed in response to public feedback and opinion.

The RSP has now been extended to other Malaysian states under the auspices of Malaysia's National Library (*Perpustakaan Negara Malaysia* (PNM)). The PNS has also formed alliances with the state and federal governments, including the Malaysian Ministry of Welfare, Women, and Family Development, the Ministry of Local Government, the Sarawak Ministry of Health, the Malaysian Ministry of Women, Family, and Community Development, the Malaysian

Ministry of Tourism and Culture, and the Malaysian National Library. The RSP emphasizes early literacy where parents play critical supportive roles and provide efforts to build a reading culture inside their family nest. The RSP also intends to develop long-term community-based early literacy projects that provide chances for all children in Sarawak, particularly those from low-income families in rural regions.

From the mother's prenatal phase until the kid is three years old, the RSP attempts to promote literacy (reading and writing) among parents and babies. Since 2015, approximately 12000 RSP kits have been supplied. Particularly, RSP is an early literacy initiative aimed mostly at children under the age of three and their parents. Reading enthusiasm and other cognitive developments should ideally be encouraged from the time the child is in the mother's womb, so that reading becomes part of the child's growing up process and reading habits flourish till maturity. It is considered that the earlier children learn to read, the more prepared they would be for formal education when they enter a formal school system (kindergarten age four). Furthermore, the more toddlers and youngsters learn to read, the more they will know and the more secure they will be in their capacity to comprehend the knowledge. RSP's key goals are to promote reading culture (assisting children learn to read from an early age) and eventually empower them to be independent readers for life. Second, RSP was created to encourage parents to read to their newborns (frequent interactions between parents and their infants can also promote intimacy). Reading will thus become a pleasurable and healthy hobby for both parents and children. Third, RSP aids in the development of a child's vocabulary and confidence.

This paper views reading as a literacy development program aimed at creating a reading culture. PNS initiatives in invented an RSP, initially thought to have a significant ability to assist children in learning to read at a young age, eventually empowering them to be independent readers and lifelong learners. The young participants' reading habits in RSP can be determined based on their 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 particular period. In most studies, there is a substantial link between children's reading habits, culture, and reading programs and their developmental results, and the effects are generally positive. Predominately, to ensure the success of the reading program and the instillation of reading habits in children, parents must play important roles in encouraging their children to read.

METHODS

The study applies a cross-sectional quantitative survey method. A purposive sampling strategy is used to identify appropriate respondents for the online survey questionnaire. Respondents are chosen from among individuals who have enrolled

(registered) in the RSP. Corresponding to the record provided by the team of PNS who's responsible for conducting the RSP, 1027 people have joined the RSP scheme, which covers the Kuching Division. In this preliminary assessment, only the Kuching division was chosen because it is home to PNS and is deemed close to the program's organizer. Only 590 people have finished the RSP course and gotten the RSP's gear (program's modules and educational kits), according to records. As a result, the sample size for the current study must be at least 234 participants (with a 95% confidence level) for a population (*N*) of 600 (Krejcie & Morgan, 1970). Given the participants' commitment to completing the RSP, a sample size of 300 is assumed to be enough for administering the questionnaire. Although 417 individuals were reached, 385 completed responses were identified, yielding a 92.33% response rate. PNS's RSP feedback form, RSP's Module for Parents, RSP's kit, and Children's Early Literacy Practices at Home and in Early Year Settings: Second Annual Survey of Parents and Practitioners (Formby, 2014) were used to create the survey questionnaire items.

The demographic section of the survey questionnaire used in this paper asks for age, gender, the source of the RSP kit, the date/year of receiving the RSP kit, ethnicity, highest qualification, employment, household income, and information on the respondents' child who participates in the RSP (age, place of birth, and gender). The information gathered regarding reading habits is used to assess the impact of RSP as early reading practices at home. The RSP survey items aid in determining the program's understanding and usefulness. A 10-point Likert scale ranging from 0 (not applicable/strongly disagree) to 10 (completely applicable/strongly agree) is used to assess both reading habits and program perception on the usefulness of the RSP. Apparently, a split coefficient efficient value of the dimension RSP for a separate comparison is not scholarly available. Hence, since the RSP is in-house developed and invented by the PNS mainly for an early childhood reading initiative, the survey questionnaire is exclusively created for this study named as Reading Seed Programme Effectiveness Scale (RSPes). Hence, an item analysis was undertaken to determine the reliability of the scale. In principle, this survey is primarily intended to establish the validity and reliability of the survey questionnaire and to analyze the impact of the RSP in achieving its invented objectives. To find the underlying structure and linkages of a rather large set of measured variables, an exploratory factor analysis (EFA) technique was used (Gaur & Gaur, 2006; Pallant, 2020).

RESULTS

Shown as in Table 1, the majority of the respondents, i.e., 66.2% (255 out of 385), were between 31 and 40 years old, 84.7% were female, 50.9% were Malay, 47.5% were university graduates, 43.9% had household income between RM1001 and RM3999, 48.3% were working in the public sector, joined the RSP, and received

their RSP kit between 2020 and 2022, and 88.6% received their RSP kits directly from PNS. Apart from that, 64.2% of respondents claimed that their children who have been exposed to the RSP kits are between 0 (newborn) and 3 years old; 79.8% were born in government hospitals; and 52.2% are male.

Table 1: Respondents' Demographic Profiles

Demographic	<i>n</i>	%	Demographic	<i>n</i>	%
(Respondents)					
Age			Household Income		
20-30	82	21.3	Less than RM1000	40	10.4
31-40	255	66.2	RM1001-RM3999	169	43.9
41-50	32	8.3	RM4000-RM8500	136	35.3
Not specified	16	4.2	Above RM8500	40	10.4
<i>Total</i>	<i>385</i>	<i>100.0</i>	<i>Total</i>	<i>385</i>	<i>100.0</i>
Gender			Employment		
Female	326	84.7	Public Sector	186	48.3
Male	59	15.3	Private Sector	87	22.6
<i>Total</i>	<i>385</i>	<i>100.0</i>	Self-employed	28	7.3
Ethnicity			Unemployed/housewife	82	21.3
Bidayuh	36	9.4	Not specified	2	0.5
Chinese	116	30.1	<i>Total</i>	<i>385</i>	<i>100.0</i>
Iban	15	3.9	Year received the RSP kit		
Orang Ulu	4	1.0	2017 – 2019	69	17.9
Malay	196	50.9	2020 - 2022	313	81.3
Melanau	16	4.2	Not Specified	3	0.8
Not Specified	2	5.0	<i>Total</i>	<i>385</i>	<i>100.0</i>
<i>Total</i>	<i>385</i>	<i>100.0</i>	The RSP kit obtained from:		
Highest Qualification			Health Clinic /	26	6.8
University Degree	183	47.5	Government's Polyclinic		
Diploma	85	22.1	PUSTAKA N.S.	341	88.6
Certificate	31	8.1	Others: <i>Can't remember,</i>	18	4.6
Secondary School	81	21.0	<i>Event booth, KEMAS,</i>		
Primary School	5	1.3	<i>Local Council, PERKIM,</i>		
<i>Total</i>	<i>385</i>	<i>100.0</i>	<i>Pusat Internet</i>		
(Child)			<i>1Malaysia.</i>		
Age			<i>Total</i>	<i>385</i>	<i>00.0</i>
Child's Place of Birth			Child's Place of Birth		
0-3 yrs old ¹	247	64.2	Government Hospital	307	79.8
4-6 yrs old ²	122	31.7	Private Hospital	76	19.7

Demographic	<i>n</i>	%	Demographic	<i>n</i>	%
≥ 7 yrs old ³	10	2.6	Others	2	0.5
Not Specified	6	1.6	<i>Total</i>	385	100.0
<i>Total</i>	385	100.0			
Child's Gender					
Female	184	47.8			
Male	201	52.2			
<i>Total</i>	385	100.0			

Note:

¹born 2019-2022

²born 2016-2018

³born in ≤ 2015

To recapitulate, this paper is written to determine the impact of PNS's RSP on nurturing toddlers' reading habits. Foremost, in establishing the reliability of the scale, a construct validity assessment was performed by teams of enumerators, ten RSP users three professionals (who initially involved in early stage of RSP development) validated the comprehension of the contents, the intensity (coverage), the language, the length (total survey items), the arrangement of the sections, dimensions, and item (statement), the measurement scale, the overall questionnaire design, and other relevant related issues with the measures. The questionnaire was later fine-tune to confirm that the survey covers the construction of interest being surveyed. The final accepted of the survey items attached as in the appendix.

Next, the criterion's validity is examined through the Exploratory Factor Analysis (EFA) protocol using a principal component analysis and varimax rotation methods. It was discovered that the communalities count was over 0.50 except for “brings his/her favorite book to me to be read” (0.225), “your child frequently reads printed books in a week” (0.275), and 'your child frequently reads on screen in a week' (0.404). Generally, the rule-of-thumb of communality check stated those values counted less than 0.50 and should be removed. Nevertheless, the decision to remove these items will be made later, after examining the factor loading indication on the factor matrix table.

With respect to the correlation matrix, the correlation coefficients between a single item and every other item in the investigation were found to be lower than the principal diagonal of the correlation matrix (i.e., close to zero), which indicates the reading habit construct is considered a good model. The Bartlett's Test of Sphericity is performed in weighing the overall significance of the correlation matrix and showed that the model is statistically significant [χ^2 ($n = 385$) = 3381.947 ($p < 0.001$)] to indicates their fitness for factor analysis. In addition, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (MSA) stated value

of 0.854 indicates the appropriateness of the data for factor analysis. In this regard, according to Shrestha (2021), MSA values above 0.800 are considered meritorious (sufficiency of samples is greater than 0.60) and appropriate for factor analysis. Exceptionally, the MSA value for the reading habit construct is displayed on the diagonal of the anti-image correlation matrix has generated values greater than 0.50, i.e., between 0.792 and 0.900, thus all items were included in the factor analysis.

Table 2: Regression analyses RSP and reading habits based on demographic characteristics.

	R^2	f^2	df	β	t	Sig
RSP ► Reading habits	0.851	5.711	1,383	0.922	46.683	0.000
RSP ► Reading habits (+ demographics)	0.872	6.813	17,367	0.925	48.137	0.000
► Respondents' Age				0.026	1.347	0.179
► Child' age				0.021	1.065	0.288
► Respondents' gender				-0.012	-0.603	0.547
► Child' gender				0.015	0.810	0.418
► Ethnicity				0.005	0.270	0.787
► Socio-economic Status				0.003	0.115	0.908
► Current Location				0.022	1.132	0.258
► Respondents' Place of Birth				0.025	1.236	0.217
► Child Place of Birth				-0.025	-1.253	0.211
► Marital Status				-0.002	-0.105	0.917
► Employment				-0.034	-1.556	0.121
► Highest Qualification				-0.019	-0.770	0.442
► Date/year received kits				-0.018	-0.855	0.393
► RSP kits obtained from				0.008	0.439	0.661
► RSP Joining				0.055	2.649	0.008
► Siblings used the RSP kits				0.107	5.594	0.000
<u>RSP Joining</u>						
Voluntary	0.855	5.897	1,272	0.924	40.000	0.000
Invited	0.842	5.329	1,75	0.917	19.974	0.000
Selected	0.824	4.682	1,26	0.908	11.047	0.000
Compulsory	1.000	.	1,0	1.000	.	.
Others	0.966	28.412	1,2	0.983	7.565	0.017
<u>Siblings used the RSP kits</u>						
No sibling	0.838	5.173	1,238	0.916	35.144	0.000
1 and more siblings	0.900	9.000	1,143	0.949	35.856	0.000

The factor extraction accounted for 64.615% of the variation; with an eigenvalue (quality scores) of 1.00 or higher were extracted from thirteen items of the construct (reading habit) whereas all thirteen items are retained despite communalities count suggest item deletion. Finally, Cronbach's alpha reliability coefficient was extremely reliable i.e., reading habit ($\alpha = 0.874$), and the program (RSP) ($\alpha = 0.967$). In specific, variables with values greater than 0.70 are deemed to have acceptable reliability coefficients, and their combination can be used as a scale (Cronbach, 1951; Nunnally, 1967; Tavakol and Dennick, 2011).

Moving forward, Table 2 has shown that the program (RSP) is generally found to be statistically significant in predicting reading habits [$t(1,383) = 46.683, p < 0.001$ ($p < 0.05$)]. The R^2 value of 0.851 indicates that the model (RSP) explains 85.1% of the variance in reading habits with a large effect size of prediction [$f^2 = 5.711, \beta = 0.922$]. Particularly, the regression analyses show that RSP was found to be statistically significant in predicting reading habits based on demographic factors [$t(17,367) = 48.137, p < 0.001$ ($p < 0.05$), $\beta = 0.925, f^2 = 6.813, R^2 = 0.872$], especially the mode of joining the program (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 [$t(17,367) = 5.594, p < 0.001$ ($p < 0.05$), $\beta = 0.107$]. In specific, those joining the RSP based on friend's recommendation counted the most significant mode joining the program (RSP) [$t(1,2) = 7.565, p < 0.001$ ($p < 0.05$), $\beta = 0.983, f^2 = 28.412, R^2 = 0.966$], followed by voluntary, by invitation, and being selected. As expected, child's siblings exist as support system to the toddlers stood as the statistically significant predictor [$t(1,143) = 35.856, p < 0.001$ ($p < 0.05$), $\beta = 0.949, f^2 = 9.000, R^2 = 0.900$] to the effectiveness of the programs (RSP) towards cultivating the reading habits.

The following section discussed the implication findings for the regression analyses of the program (RSP) on reading habits among toddlers according to the demographic characters. Generally, the statistical analyses demonstrated above indicate the program (RSP) is dynamic and has potential to become a mainstream reading curriculum in early literacy programs.

DISCUSSION

Scale validity

Reemphasized, this paper is specifically designed to validate the newly developed scale to measure the usefulness of the PNS's RSP on enculturating toddlers' reading habits. Particularly, reading habits are reflected in the literacy enhancement effort facilitated by the RSP, aimed at fostering a culture of reading. This paper provides a significant statistical evident that the RSP possesses the capacity to facilitate toddlers' early reading acquisition, ultimately equipping them to become autonomous readers and lifelong learners. The RSP inclusive of the module

designed for parents and RSP kits primary focus on instilling a reading habit right from the prenatal phase, persistently nurturing it until toddlers reach the age of three years.

Feasibility of the RSP

The RSP was discovered to have the potential to foster reading habits, especially when it came to the toddlers' influence at home and the way they joined the program. Particularly, when it came to the program's perceived benefits, participants who had heard and/or been referred to by friends appreciated the program the most, followed by those who voluntarily signed up and those who were chosen to participate. In addition, compared to toddlers without siblings using the RSP kits at home, those who had siblings at home were more likely to perceive that the program was beneficial. The findings suggest demographic characters gives significant influence on the effectiveness of the RSP as emphasized by Rozaimie (2024) especially in nurturing reading habit among toddlers.

Foremost, those who were referred to the program by others may have seen the beneficial effects the RSP had on the kids of their friends, which shaped their opinion of the program's effectiveness. Furthermore, the fact that older siblings are using the RSP kits implies that the target child may be inspired to participate in the program by the role models they provide. These results highlight the value of support and encouragement as key motivators in fostering reading habits, especially in young children.

The results enhanced the understanding and are further consistent with the results of a prior study (see Van Kleeck, Gillam, Hamilton, & McConnell, 2017). According to Van Kleeck et al. (2017), when children between the ages of 3 and 7 engaged in shared reading activities with printed books, their vocabulary, grammar, print knowledge, and narrative comprehension improved in comparison to when they read e-books or under control circumstances. These results also align with the perspectives offered by researchers (see, for example, Bus, van IJzendoorn, & Pellegrini, 1995; Bus, Takacs, & Kegel, 2021) who emphasized the relationship between reading print books and improved print awareness, oral language proficiency, and emergent literacy skills such as letter recognition and phonological awareness. They continued by suggesting that the tactile and visual qualities of print books, such as the opportunity to engage with words and images in a physical way, may support the development of children's language and literacy skills, aid in the understanding of letters and sounds, and improve comprehension and retention of story content in general.

Moreover, in line with prior studies (cf: Hwang & Yen, 2019; Xu, Zhang, & Yang, 2021; Xu, Wang, Collins, Lee, & Warschauer, 2021), the findings have demonstrated that parents of preschool-aged children who used interactive e-books reported higher levels of engagement and enjoyment than those who used

traditional print books. The American Academy of Pediatrics did, however, caution against e-books in favor of print books when it comes to encouraging parent-child interaction and the development of early literacy skills. It has been noted in several studies (e.g., Bus, van IJzendoorn, & Pellegrini, 1995; Bus, Takacs, & Kegel, 2021; Jia & Luo, 2021) an early literacy developmental program can be aided by the occasional use of e-books, but that reading print books to young children should always come first.

Overall, the results support the prior studies (cf: Bus, van IJzendoorn, & Pellegrini, 1995; Bus, Takacs, & Kegel, 2021; Van Kleeck et al., 2017) that highlighted the benefits of reading printed books to young students for language, literacy, and comprehension in general. However, the major limitation of this study was the presumption that all participants have the same level of intelligence and learning capacity, which affects how reading habits are developed. Additionally, participants' feedback highlights areas where the RSP kit could be improved. A variety of ideas have been put forth, such as incorporating voice- and audio-based reading materials, offering softer building blocks and a variety of sensory toys, augmenting the RSP kit with additional materials, and offering language support in multiple languages. Although the program includes online learning materials, parents' (participants') lack of supervision and accessibility limits the use of these materials. Examples of these limitations include smartphone ownership and screen time monitoring.

CONCLUSIONS

This paper pitched an early childhood literacy intervention with appropriate reading programs nurture toddler efficacy as early as the fetus in the mother's womb, throughout the very early stages of brain development. Accordingly, the PNS-initiated RSP reflects the intention to have an effective early childhood literacy program. Utilizing Bandura's self-efficacy theory as a foundation, the companion (parents, childcare guidance, and educators) can play a transformative role in shaping positive learning experiences and nurturing the habit of reading in toddlers. Focusing on early childhood literacy programs can help toddlers gain confidence and competence in reading. An effective literacy program should include four components that promote self-efficacy: mastery experiences, verbal persuasion, vicarious experiences, and physiological and emotional states (Amin & Oudah, 2024; Joseph, 2002; 2008; Lee & Zentall, 2017; Schwanenflugel & Knapp, 2015; Smith, Smith, Gilmore, & Jameson, 2012). The RSP demonstrated that developing toddlers' self-efficacy to create belief and confidence in understanding, interpreting, and participating in reading activities reflected their reading behavior and, eventually, their reading accomplishments, as scholars contended (cf. Amin & Oudah, 2024; Henk & Melnick, 1995; Ramiah & Maniam, 2024).

The RSP has been organized to include activities for tracking and getting involved in toddlers' physical and nutritional growth, developmental growth (gross motor abilities, fine motor skills, language and hearing skills, social and cognitive skills), literacy development, vaccinations, and screen time. The findings endorse Boakye's (2015) assertion that effective reading literacy programs should prioritize swelling learners' self-efficacy through clear learning objectives, consistent feedback, specific reading strategies, effort recognition, and the use of relevant texts. Thus, the RSP is discovered to have been greatly invented to assist in fostering toddler efficacy and significantly increase toddlers' confidence in their reading abilities. Furthermore, it has been perceived that RSP is beneficial in improving toddler motivation, parental/childcare engagement, and comprehension skills. Undeniably, effective early childhood literacy interventions instill in toddlers and learners a strong belief in their abilities, leading to increased engagement, persistence, interest, and higher achievement than those with low self-efficacy or confidence in their abilities (Bandura, 1997). Thus, positive self-perceptions of one's ability to read are associated with a greater interest in reading activities during the early years, which develop into habits for the rest of one's life.

Zhang's (2024) has found that early reading is important in toddler cognitive development, with parents' reading beliefs and young children's interest in reading being significantly correlated. Furthermore, favorable parental attitudes toward reading foster young children's interest in reading. The findings also confirmed that the influences of family socioeconomic status, home literacy environment, and parents' education level, views on reading, and toddlers' educational behaviors differ in many ways (Rozaimie, 2024; Ramiah & Maniam, 2024; Van Kleeck et al., 2017). This study promotes parent involvement in early childhood reading literacy programs to ignite toddlers' interest in reading readiness interventions for later school years. Individual children's reading efficacy can be comprehended by educational and academic institutions, nevertheless which requires alliance between parent and teacher to improve early reading development.

In conclusion, it sheds light on the effectiveness of toddlers' early childhood reading literacy, which RSP has identified as novel initiatives for cultivating a genuine interest in reading, particularly in contexts where access to educational resources is limited. Learning difficulties may have an impact on the development of reading habits at an early age. It is therefore advised that the RSP be updated on a regular basis, with content being categorized according to the learning capacities of the intended audience (children). Significant limitations regarding the RSP program's ability to foster reading habits have been identified by this study. A notable constraint pertains to the presumption of consistent cognitive abilities and learning capacities among the participants, which may influence the efficacy of the process of fostering a reading habit.

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APPENDIX

Questionnaire

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

We would like to hear from you about your child's literacy development. *Kami ingin mendapat pandangan anda tentang perkembangan literasi anak anda.*

Reading Habit

My child: [anak saya:]

- _____ Shows interest in books [*Menunjukkan minat terhadap buku*]
- _____ Is attracted to interesting pictures in books [*Tertarik kepada gambar yang menarik di dalam buku*]
- _____ Likes it a lot when I read story books to him/her [*Sangat suka apabila saya membaca buku cerita kepadanya*]
- _____ Brings his/her favourite book to me to be read [*Membawa buku bacaan kegemarannya kepada saya untuk dibaca*]
- _____ Enjoys looking at or reading from printed books [*Seronok melihat gambar2 dalam buku bercetak*]
- _____ Reads books on his/her own with encouragement [*Membaca buku dengan sendirinya dengan galakan yang diberikan*]
- _____ Can read along together [*Boleh membaca bersama-sama*]
- _____ Your child frequently read printed books in a week [*Anak anda kerap membaca buku bercetak dalam tempoh seminggu*]
- _____ Enjoys looking at stories on a touch SCREEN [*Seronok melihat cerita pada skrin*]
- _____ Read longer on a touch screen than on printed form [*Membaca lebih lama pada skrin berbanding buku bercetak*]
- _____ Uses the screen more for edutainment than for reading [*Menggunakan skrin untuk didikhibur lebih daripada membaca*]
- _____ Prefers an interactive digital media for reading [*Lebih gemar media digital interaktif untuk membaca*]
- _____ Your child frequently read on screen in a week [*Aanak anda kerap membaca pada skrin dalam tempoh seminggu*]

Reading Development Program (RSP)

Reading Seed Kit:

- _____ I know how to use all the materials in the kit [*Saya tahu penggunaan setiap bahan di dalam kit RSP*]
- _____ I know how to use the RSP module for Parents Reading Friends [*Saya tahu cara menggunakan Modul RSP Ibu Bapa Rakan Membaca*]
- _____ I know how to use the growth development checklist [*Saya tahu menggunakan Senarai Semak Perkembangan anak*]

- _____ The growth chart helps to monitor my child's development [*Carta pertumbuhan membantu saya memantau perkembangan anak saya*]
- _____ Language used in all the materials are clear [*Bahasa digunakan bagi setiap bahan dalam kit RSP ini adalah jelas*]
- _____ Reading materials attract my child's interest [*Bahan bacaan menarik minat anak saya*]
- _____ RSP materials help me to communicate with my child [*Bahan-bahan RSP membantu saya berkomunikasi dengan anak saya*]

I believe that the Reading Seed Program: [Saya percaya bahawa RSP:]

- _____ Provides access to quality early literacy materials [*Menyediakan akses kepada bahan literasi awal yang berkualiti*]
- _____ Gives me the skill to read to my newborn [*Memberi kemahiran membaca kepada bayi yang baru lahir*]
- _____ Makes reading enjoyable for me and my child [*Menjadikan aktiviti membaca seronok bagi saya dan anak saya*]
- _____ Exposes my child to a greater number of words through books [*Mendedahkan lebih banyak perhatian kepada anak saya melalui buku*]
- _____ Grooms my child for more precise oral communication [*melatih anak saya untuk memperluaskan menggunakan komunikasi lisan yang lebih tepat*]

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