

## Translation, Validation, and Reliability Testing of the Parent Reading Beliefs Survey (PRBS): The Malay Version

(Terjemahan, Pengesahan, dan Ujian Kebolehpercayaan bagi Tinjauan Kepercayaan Membaca Ibu Bapa (PRBS): Versi Bahasa Melayu)

David Eu Han Kung<sup>1</sup>, Affizal Ahmad<sup>1\*</sup>, Wan Najibah Wan Mohamad<sup>2</sup>, Monica Anne Wallace<sup>3</sup>

<sup>1</sup>Speech Pathology Programme, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia

<sup>2</sup>Audiology Programme, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia

<sup>3</sup>School Psychology Program, Middle Tennessee State University, 37132 Murfreesboro, Tennessee, United States of America

\*Corresponding author: Affizal Ahmad  
Email address: affizal@usm.my

### Abstract

*Children's proficient reading performance is not merely an academic skill; it is a fundamental cornerstone of a child's cognitive development, academic success, and long-term life outcomes. As a primary role model, parental reading attitudes will most likely influence the home literacy environment and children's reading performance. Parents' reading habits and experiences may provide the necessary knowledge to assist children's reading development. Currently, no Malay language instruments are available to assess parents' attitudes towards reading. Thus, this study aimed to translate the English version of the Parent Reading Beliefs Survey (PRBS) into Malay language and evaluate its validity and reliability. PRBS was chosen because it can measure how parents' reading attitudes align with current at-home literacy practices and literacy development. The Malay-translated questionnaire was content validated through content validity ratio (CVR), content validity index-relevance (CVI-Relevance), and content validity index-clarity (CVI-Clarity) methods by eight expert panels (professionals that having expertise related to early literacy), and finally reliability tested using Cronbach's alpha with 50 participants (preschool children's parents). The results showed that all items' CVR values were at least 0.75, and all items' CVI-Relevance and CVI-Clarity values were higher than 0.83, indicating satisfactory validity. As for each subscale, Cronbach's alpha value ranges from 0.71 to 0.97, indicating acceptable and good internal consistency. Overall, the Malay-translated version of the PRBS was found to be valid and reliable for use in future studies. The findings of this study can pave the way for more research efforts in the field of reading in Malaysia. The questionnaire can also assist speech therapists and educators in assessing the attitudes that parents have in reading to come up with better designs for parent-child reading intervention.*

**Keywords:** parental attitude, validity, reliability, reading, children

### Abstrak

*Prestasi cekap membaca kanak-kanak bukan sekadar kemahiran akademik; ia merupakan asas utama perkembangan kognitif, kejayaan akademik, dan hasil jangka masa panjang mereka. Sebagai teladan utama, sikap membaca ibu bapa berkemungkinan besar mempengaruhi persekitaran literasi di rumah dan prestasi membaca kanak-kanak. Tabiat dan pengalaman membaca ibu bapa boleh menyumbang pengetahuan yang diperlukan untuk membantu perkembangan membaca anak-anak. Pada masa ini, tiada instrumen Bahasa Melayu yang tersedia untuk menilai sikap ibu bapa terhadap aktiviti membaca. Oleh itu, kajian ini bertujuan untuk menterjemah versi Bahasa Inggeris Parent Reading Beliefs Survey (PRBS) ke dalam Bahasa Melayu, dan menguji kesahan dan kebolehpercayaannya. PRBS dipilih kerana ia dapat mengukur sejauh mana sikap ibu bapa tentang pembacaan selari dengan perkembangan literasi dan amalan literasi masa kini di rumah. Soal selidik terjemahan Bahasa Melayu telah disahkan kandungannya melalui kaedah nisbah kesahan kandungan (CVR), indeks kesahan kandungan-kesesuaian (CVI-Kesesuaian), dan indeks kesahan kandungan-ketelitian (CVI-Ketelitian) oleh lapan orang panel pakar (individu profesional yang mempunyai kepakanan berkaitan literasi awal), dan akhirnya diuji kebolehpercayaannya menggunakan pekali alpha Cronbach dengan 50 orang peserta (ibu bapa kanak-kanak prasekolah). Keputusan menunjukkan bahawa semua nilai CVR item adalah sekurang-kurangnya 0.75, dan semua item mencatatkan nilai CVI-Kesesuaian dan CVI-Ketelitian melebihi 0.83, mempamerkan kesahan yang memuaskan. Bagi setiap subskala, nilai alpha Cronbach adalah antara 0.71 hingga 0.97, menunjukkan konsistensi dalam yang baik dan boleh diterima. Dapatkan kajian ini dapat membuka jalan kepada lebih banyak usaha penyelidikan dalam bidang pembacaan di Malaysia. Soal selidik ini juga dapat membantu ahli terapi pertuturan dan pendidik dalam menilai sikap ibu bapa terhadap aktiviti membaca bagi menghasilkan reka bentuk yang lebih baik untuk intervensi bacaan ibu bapa dan anak.*

**Kata kunci:** sikap ibu bapa, kesahan, kebolehpercayaan, membaca, kanak-kanak

## INTRODUCTION

Early literacy development is crucial, as reading is vital for personal and academic success. Exposing children to reading from an early age equips them with essential literacy skills, which are critical for developing a strong academic and social foundation (Garcia & Weiss 2017) during early elementary school years (Hernandez 2023). Failure to grasp basic reading skills during early childhood places children at a significant disadvantage (Wanzek et al. 2020); for example, they may exhibit less productive reading and poor decoding accuracy and reading comprehension (Wanzek et al. 2020). Parents may thus employ different reading methods to support children's early literacy skills, such as shared reading, read-aloud, guided reading, modelled reading, joint book reading, and dialogic reading. By participating in early literacy activities, children can gain opportunities to engage in social interaction, active learning, problem-solving, and meaning-making (Gilkerson et al. 2018).

Literature has confirmed the benefits of early reading to children for developing their language and literacy skills (Dowdall et al. 2020) as well as their vocabulary and speech (Law et al. 2018). Reading to children in naturalistic instruction leads them to acquire phonemic awareness (Piasta 2016). These competencies are crucial for children to achieve future academic success. Reading to children may also contribute to their socioemotional competencies; for example, during shared storybook reading, children can emotionally connect with the characters in the book, such as the characters who exhibit problem-solving and interactive skills (Wirth et al. 2020). If children gradually enhance their aforementioned development skills over time, they can acquire the literacy skills essential for later reading comprehension.

A key notion in Vygotsky's social development theory is the Zone of Proximal Development (ZPD). The ZPD indicates the range between the performance levels a child can attain independently and with support (Tavassolie et al. 2018). This concept suggests that learning should align with a child's developmental stage and abilities (Ahmad et al. 2018). When a child is within their Zone of Proximal Development, parents can effectively support them in mastering a new task or skill. The methods, instructions, instruments, and materials utilised to facilitate the learning process are referred to as scaffolding. Through reading with children, parents can facilitate their children's learning by offering an appropriate reading or writing model, teaching them reading and writing processes, and correcting on-task errors (Pentimonti et al. 2017). Children are simultaneously encouraged to actively explore reading texts and share their thoughts on

the content with adult assistance (Ahmad 2015). This method can stimulate intimate parent-child interactions when reading with the child and enhance the child's participation in discussions related to the reading context at a minimal level of demand, likely eliciting accurate responses and enabling the parent to provide positive feedback (Flack et al. 2018).

According to Farrant and Zubrick (2016), the reading comprehension phase begins with children's speech development, which can be enhanced via parents speaking to their children, naming persons, objects, and actions, and expanding the content to the children. When parents tell stories to their children, over time, the child begins to understand the story's content and characters and enjoys listening to the stories. Reading to one another fosters a unique bond and intimacy, fortifies emotional ties, and creates special emotional moments for both the adult and the child (Pergar & Hadela 2020). In addition, reading to children influences cognitive skills, social skills, and emotional development, develops imagination, improves memory and attention, and strengthens confidence. Therefore, regularly reading to children must become a part of a parent's life to improve their child's development and relationship with them.

Pandith et al. (2022) found a correlation between the child's interest in reading and parents' storybook reading practice; they also found that parents' storybook reading practices contribute to children's language and literacy skills. In Sturges et al.'s (2021) study, parents believe that reading to children could enhance the child's vocabulary, critical skills, understanding, and moral values. The activity also promotes reading interest among children. The parents also agreed that story reading at home helped children read words in school. Niklas et al. (2020) demonstrated that the home literacy environment (HLE) was significantly correlated with parental attitudes towards shared reading and that the HLE mediated the effect of parental attitudes on children's linguistic abilities. Parental attitudes towards shared reading were also found to be significantly associated with families' socioeconomic status (SES). A study by Hu et al. (2021) revealed that parents provide rich information in their active interactions with their children during reading together daily. In Malaysia, studies on parents' beliefs about reading to their children are scarce. According to a study by Husain et al. (2011), the majority of Malaysian mothers believe that reading to their children is beneficial and offers significant support to help their children become competent readers.

Previous studies have primarily utilised questionnaires or interviews to assess parents' attitudes towards reading with their children. To the best of the authors' knowledge, a complete questionnaire that solely evaluates the parents'

attitudes towards reading has hardly been developed. This is because parents' reading attitudes are multifaceted, which makes it hard to categorise into domains in the questionnaire. The other reasons are that there is a lack of "gold standard" to refer to, and cultural and linguistic biases could occur when developing the questionnaires. According to Rosenberg and Hovland (1960), attitudes comprise three components: affective, behavioural, and cognitive. As the items in *Parent Reading Beliefs Survey* (PRBS) can assess the three attitudes' components, York (2020) applied PRBS in measuring parents' attitudes towards reading with their children. To the best of the authors' knowledge, PRBS is the only questionnaire that is currently available for evaluating parents' attitudes towards reading with their children. Thus, the authors focused on the PRBS in this study. Another reason for choosing PRBS is that the questionnaire measures how parents' reading attitudes align with current at-home literacy practices and literacy development (York 2020). As far as the authors are aware, no studies in Malaysia have applied PRBS in assessing parents' attitudes towards reading with their children. Moreover, no studies have reported on the translation of the PRBS into the Malay language. Thus, this study aims to translate the original English version of the PRBS into the Malay language and subsequently validate and reliability test it.

The availability of the Malay version of the PRBS is essential to evaluate parents' attitudes towards reading with their children among the Malay-speaking population, as it provides more accurate results due to familiarity and understanding of the language. The translated Malay version of PRBS can assist future researchers in gathering data regarding parents' attitudes towards reading with their children, which will eventually provide superior discoveries and increase the pool of literature in this field. Moreover, the translated Malay version of PRBS could be applied by researchers to collect data to investigate different aspects of parents' attitudes when reading with their children. The data could then be used to develop intervention strategies that can promote and enhance parents' attitudes during reading. Other future professionals, such as speech and language pathologists, counsellors, and psychologists, can also use the questionnaire to gather information about their clients' reading attitudes with their children and use the information to enhance their recommendations to the clients. Educationists may also use the translated Malay version of PRBS to discover parents' reading attitudes, which can further be used to develop parents' reading workshops or programmes that involve promoting positive parental reading attitudes.

## MATERIALS AND METHODS

### Overview of Instrument

The Parent Reading Beliefs Survey (PRBS) was developed by York (2020) to assess parents' attitudes towards reading with their children. The questionnaire comprises 26 items; of these, 15 items were developed by modifying the Parents Reading Beliefs Inventory (PRBI) (DeBaryshe & Binder 1994) to measure attitudes associated with the importance of reading, and the other 11 items were designed by York (2020) to assess additional aspects of reading participation and its influences on a child's literacy development. The items are measured on a four-point Likert-type scale ranging from 1 (strongly agree) to 4 (strongly disagree). The overall internal consistencies for the 26 items ranged from 0.92 to 0.95, indicating excellent internal consistency.

The questionnaire has six subscales: *teaching efficacy*, *positive affect*, *verbal participation*, *knowledge base*, *resources*, and *error correction*. The *teaching efficacy* subscale comprises five items (item 7, 8, 9, 10, 26) for measuring parents' views on their role as teachers of school-related skills. As for *positive affect* subscale, it consists of seven items (item 4, 5, 6, 12, 13, 15, 19) intended to measure the positive affect associated with reading. The *verbal participation* subscale comprises five items (item 16, 20, 21, 22, 23) used to assess the value placed on children's active verbal participation when reading aloud. The *knowledge base* subscale includes five items (item 1, 2, 3, 24, 25) evaluating whether parents believe that children acquire moral orientations or practical knowledge from books. The *resources* subscale has two items (item 11 and 14) for assessing whether parents perceive having limited resources, which is an obstacle to reading. Finally, the *error correction* subscale with two items (item 17 and 18) evaluates the beliefs associated with teaching interactions during shared reading time.

In PRBS, answers were measured on a 4-point Likert-type scale ranging from strongly agree to strongly disagree. Participants need to rate each of these items by choosing 1, which is 'strongly disagree', 2, for 'disagree', 3, for 'agree', and 4, for 'strongly agree'. The ratings were accumulated for each subscale.

### Translation Process

The PRBS was translated from the original English to the Malay version using forward and backward translation methods. Two bilingual language lecturers whose primary language is Malay were

involved in forward translation, while two other bilingual language lecturers participated in backward translation. The work by Tsang et al. (2017) was considered a guideline during translation. First, the two bilingual language lecturers whose primary language is Malay were approached to translate the questionnaire into Malay. One translator was aware of the questionnaire's concept and could provide a translation that more closely resembles the original questionnaire (T1). The other was unaware of the questionnaire's objective during translation (T2) (Beaton et al. 2007). This is to allow for the detection of any potential subtle differences or discrepancies between the two translations (T1 and T2), which will aid in providing more accurate translations. Discrepancies between the two translations were discussed and resolved by three experts, who were the forward translators and a lecturer of psychology. Discrepancies were resolved based on appropriate use of wording, similarity to the original items' meaning, and grammar mistakes. Both forward translations were then combined to obtain a new translated questionnaire (T3) (Saremi et al. 2022).

Next, the two other bilingual language lecturers were approached for backward translation. T3 was independently back-translated (i.e., translated from the target language into the original language) to ensure translation accuracy (Tsang et al. 2017). This resulted in two back-translated English versions of the questionnaire (T4 and T5). To avoid bias, during translation, the two backward translators were not informed about the intended concepts that the questionnaire would assess (Althof et al. 2018). Misunderstandings or unclear wordings in the forward translations were revealed in the back-translation. Thereafter, the expert committee (both forward and backward translators and a lecturer of psychology) evaluated and compared T1, T2, T3, T4, T5, and the original English questionnaire, and the essential changes were made. Last, the experts assessed the questionnaire in terms of grammar, wording, and terminology to obtain the final translated Malay version (Saremi et al. 2022). All the translators were certified language lecturers, had master's degrees, were fluent (reading and writing) in English and Malay, and had 10 years of working experience. The lecturer of psychology has a doctorate, 30 years of working experience, and is proficient in both English and Malay. Consents were obtained from all translators before performing the translation and evaluation of the questionnaire.

#### Validation Process

The Malay-translated PRBS items were subsequently validated in terms of their content validity. The works by Yusoff (2019) and Lawshe (1975) were followed as a guideline to assess content validity.

Content validity here refers to the extent to which the questionnaire's items represent the entire theoretical construct the questionnaire is designed to assess (Schultz & Whitney 2005). The purpose of content validity is to reduce the potential for errors that may be connected with the operationalisation of the instrument during its earliest phases (Shrotryia & Dhanda 2019). Besides, content validity indicates the degree to which an empirical measurement accurately represents a certain domain of content (Boateng et al. 2018). This shows the reason why the newly developed Malay-translated PRBS needs to be content validated. During assessing the content validity, the questionnaire's items were validated by experts using three different methods: content validity ratio (CVR), content validity index-relevance (CVI-Relevance), and content validity index-clarity (CVI-Clarity).

Eight expert panels were involved in assessing the content validity, and the online approach was chosen for its cost-effectiveness. Evaluation forms for the Malay-translated PRBS were sent to and completed by the experts via Google Forms after obtaining consent from the panellists through online meetings. CVR, CVI-Relevance, and CVI-Clarity analyses were conducted after all the evaluation forms were received by the researchers in about one week. The eight expert panels were selected based on the following criteria: completed a bachelor's degree, have more than 10 years of working experience, and have expertise related to early literacy.

When using the CVR method for assessing content validity, the panellists rated the items in the evaluation forms on a three-point scale (1 = Not necessary, 2 = Useful but not essential, 3 = Essential). They evaluated the essentiality or necessity of the items to the measured domains, the scale used for the questionnaire, and the questionnaire's purpose. As for using CVI-Relevance during assessing the content validity, the panellists graded the evaluation forms according to the relevance of each item. The scale used for CVI-Relevance was based on the work by Yusoff (2019): 1 = The item is not relevant to the measured domain, 2 = The item is somewhat relevant to the measured domain, 3 = The item is quite relevant to the measured domain, and 4 = The item is highly relevant to the measured domain. Besides rating items' relevance, the panellists also graded the evaluation forms according to the clarity of each item by using CVI-Clarity. The scale used for CVI-Clarity was based on the work by Zamanzadeh et al. (2015): 1 = The item is not clear, 2 = The item needs some revision, 3 = The item is clear but needs minor revision, and 4 = The item is very clear. During the evaluations, the panellists were also required to consider the relevance and clarity of the questionnaire's items together with

the questionnaire's domains, the scale used for the questionnaire, and the questionnaire's purpose. All experts were invited to give feedback for each questionnaire item during the assessment of the content validity. After considering all feedback, the authors revised the items based on cultural appropriateness, language usage, conciseness, and similarity to the original items' meaning.

### Reliability Testing

The Malay-translated PRBS was reliability tested after assessing the content validity. The reliability of the questionnaire was calculated using internal consistency reliability, represented by Cronbach's alpha ( $\alpha$ ). The sample size required for internal consistency reliability testing was calculated using the formulae proposed by Bonett (2002) on the Malay-translated PRBS. The sample size was found to be 15. However, Karakaya and Alparslan (2022) claimed that the sample size should be at least 45 or more in order to calculate a meaningful internal consistency coefficient. Having the above said, 50 participants (i.e., parents of preschoolers) were recruited for the analysis through the convenience sampling method. The participants were asked to complete the questionnaires after receiving consent from them. All completed questionnaires were then analysed.

### Data Analysis

The collected data were analysed using Microsoft Excel 2019. For confidentiality, the identities of the experts engaged were replaced with numerical codes. The respective CVR, CVI-Relevance, and CVI-Clarity values of Malay-translated PRBS items were then calculated. The views of the experts, including their remarks and recommendations, were considered during data analysis.

To determine the CVR value for each item on the Malay-translated PRBS, the following formula proposed by Lawshe (1975) was used:  $CVR = (n - N/2)/(N/2)$ . Here,  $N$  represents the total number of panellists, and  $n$  is the number of panellists identifying an item as '*essential*' (Wilson et al. 2012). The critical limit of CVR needed to be achieved for an item to be retained in the questionnaire is determined by the number of panellists. In this study, the critical limit for eight panellists is 0.75 (Lawshe 1975). Any items whose CVR value fails to meet the critical limit must be either eliminated or revised (Devon 2007). Thus, the researcher modified any items with a CVR lower than 0.75. Lawshe (1975) considered two assumptions when quantifying consensus in the panel of experts using the suggested formula. The first assumption is that for any item, performance that is perceived to be '*essential*' by more than half

of the panellists has some degree of content validity. The second assumption is that the more panellists (beyond 50%) perceive the item as '*essential*', the greater the extent or degree of its content validity. The calculated CVR value may range from -1 to 1, with -1 indicating that none of the panellists rated the item as '*essential*' and 1 indicating that all the panellists rated the item as '*essential*'. When an item is rated as '*essential*' by more than half but less than all of the panellists, the CVR value will be between 0 and 1. Conversely, when less than half of the panellists rate the item as '*essential*', the CVR value will be negative. Also, when half of the panellists rate the item as '*essential*' and half do not, the CVR value is zero.

In the present study, there are two types of CVI: CVI for item (I-CVI) and CVI for scale (S-CVI). I-CVI represents the proportion of the panellists rating the relevance of the item as 3 or 4 and is calculated with the following formula:  $I-CVI = (\text{agreed item})/(\text{number of experts})$ . Two methods were used for calculating S-CVI: (1) the average of the I-CVI values for all items on the scale (S-CVI/Ave) and (2) the proportion of items on the scale that achieve a relevance rating of 3 or 4 by all experts (S-CVI/UA) (Polit & Beck 2006). S-CVI/Ave was further calculated using two methods: S-CVI/Ave (based on I-CVI) and S-CVI/Ave (based on proportion relevance). S-CVI/Ave (based on I-CVI) was calculated using the formula:  $S-CVI/Ave (\text{based on I-CVI}) = (\text{sum of I-CVI scores})/(\text{number of items})$ , while S-CVI/Ave (based on proportion relevance) was calculated using the formula:  $S-CVI/Ave (\text{based on proportion relevance}) = (\text{sum of proportion relevance rating})/(\text{number of experts})$ . Regarding S-CVI/UA, it was calculated using the formula:  $S-CVI/UA = (\text{sum of UA scores})/(\text{number of item})$ . Note that before calculating CVI, the relevance rating must be recorded as 1 (for items with a relevance rating of 3 or 4) or 0 (for items with a relevance rating of 1 or 2). Moreover, the universal agreement (UA) score was considered as 1 when the item achieved 100% experts in agreement; otherwise, the UA score was 0. The calculation method for CVI-Clarity was the same as that for CVI-Relevance at the item level (I-CVI). However, no scale-level (S-CVI) calculation for CVI-Clarity was performed (Zamanzadeh et al. 2015). In this study, the acceptable CVI value is 0.83 because there are eight panellists (Lynn 1986). The acceptable CVI value was used for I-CVI, S-CVI/Ave (based on I-CVI), S-CVI/Ave (based on proportion relevance), and S-CVI/UA. Any item having a value lower than 0.83 was further modified. Finally, the reliability of the questionnaire was analysed for internal consistency reliability using the Statistical Package for Social Science (SPSS) version 22.0.

## RESULTS

### Translation of the English Version of PRBS to the Malay Version of PRBS

This study revealed not many discrepancies between the forward- and back-translated questionnaires. However, during the expert committee discussion, some modifications were made to the translations before producing the Malay-translated PRBS that will be further content validated. The items modified during the expert committee discussion were item 6, 8, 13, 15, 21, and 22. In item 6, the word ‘*penjaga*’ (caregiver) was revised to ‘*ibu/bapa*’ (mother/father) to better suit the wording of the item to the targeted population. In item 8, the word ‘*caranya*’ was added to the phrase ‘*tetapi saya tidak tahu bagaimana*’ to form ‘*tetapi saya tidak tahu bagaimana caranya*’. The phrase was altered for grammar and ease of understanding. The short phrase in item 13 was revised from ‘*membeliarkan*

‘*anak saya memilih buku untuk kami membaca*’ to ‘*membeliarkan anak saya memilih buku untuk kami baca bersama*’ by adding the word ‘*baca bersama*’. The modification aimed to improve the clarity, ease of understanding, and comprehensiveness of the phrase. In item 15, the phrase ‘*supaya anak saya terus berminat*’ was modified to ‘*supaya anak saya terus berminat untuk membaca*’ by adding the word ‘*untuk membaca*’ for improved comprehension and more meaningful sentence. In item 21, the word ‘*mereka*’ (they) was revised to ‘*dia*’ (him/her) for grammatical correctness. Regarding item 22, ‘*bertanya soalan tentang watak, cerita dan latar semasa kami membaca*’ was altered to ‘*bertanya tentang watak, cerita dan latar semasa kami membaca*’ by removing the word ‘*soalan*’ for ease of understanding and conciseness. Table 1 shows the one-to-one comparison of the original English-language items of the PRBS and the respective Malay-translated items after discussion among the expert committee.

Table 1. Comparison of PRBS items between the original English and Malay-translated versions (after discussion among the expert committee)

Item	PRBS	
	English versions	Malay-translated versions
1	Reading helps children be better talkers and better listeners.	<i>Membaca membantu kanak-kanak menjadi penutur dan pendengar yang lebih baik.</i>
2	Children learn new words from books.	<i>Kanak-kanak belajar perkataan baharu daripada buku.</i>
3	Reading at home improves reading scores at school.	<i>Membaca di rumah meningkatkan markah membaca di sekolah.</i>
4	Talking about books and stories at home increases a child’s enjoyment of reading.	<i>Bercakap tentang buku dan bercerita di rumah meningkatkan keseronokan membaca kanak-kanak.</i>
5	Enjoyment of reading is related to reading performance.	<i>Keseronokan membaca berhubung kait dengan prestasi membaca.</i>
6	Reading at home together can strengthen the bond between a caregiver and a child.	<i>Membaca bersama anak di rumah dapat mengeratkan hubungan antara ibu/bapa dan anak.</i>
7	As a parent, I play an important role in my child’s literacy development.	<i>Sebagai ibu/bapa, saya memainkan peranan penting dalam perkembangan literasi anak saya.</i>
8	I would like to help my child learn to read, but I do not know how.	<i>Saya ingin membantu anak saya belajar membaca, tetapi saya tidak tahu caranya.</i>
9	Children do better in school when their parents also teach them at home.	<i>Kanak-kanak boleh buat lebih baik di sekolah apabila ibu bapa juga mengajar mereka di rumah.</i>
10	Sharing the importance of reading with my child will encourage them to read more.	<i>Berkongsi kepentingan membaca dengan anak saya akan menggalakkan mereka lebih banyak membaca.</i>
11	Even though I would like to, I feel I’m too busy and too tired to read to my child.	<i>Walaupun saya mahu, saya rasa terlalu sibuk dan letih untuk membaca kepada anak saya.</i>
12	I want my child to love books.	<i>Saya mahu anak saya menyukai buku.</i>
13	It is important to let my child choose the book when we read.	<i>Adalah penting untuk membiarkan anak saya memilih buku untuk kami baca bersama.</i>

14	Even if I would like to, I don't feel we have access to books that will interest my child in reading.	<i>Walaupun saya mahu, saya tidak merasakan kami mempunyai buku yang menarik minat anak saya untuk membaca.</i>
15	It is important to read with excitement, so my child stays interested.	<i>Adalah penting untuk membaca dengan penuh keterujaan, supaya anak saya terus berminat untuk membaca.</i>
16	It is important that my child helps me tell the story when we read.	<i>Adalah penting untuk anak saya membantu saya bercerita semasa kami membaca.</i>
17	It is important to teach my child to sound out unfamiliar words as we read.	<i>Adalah penting untuk mengajar anak saya membunyikan perkataan yang asing baginya semasa kami membaca.</i>
18	It is important to correct my child when he/she makes a mistake in reading.	<i>Adalah penting untuk membetulkan anak saya apabila dia membuat kesilapan semasa membaca.</i>
19	It is important to praise and encourage my child when they read to me.	<i>Adalah penting untuk memuji dan menggalakkan anak saya apabila dia membaca kepada saya.</i>
20	It is important to let my child take the lead as the storyteller as we read.	<i>Adalah penting untuk membiasakan anak saya menjadi pencerita semasa kami membaca.</i>
21	It is important to ask my child what they think will happen next as we read.	<i>Adalah penting untuk bertanya kepada anak saya apa yang dia fikir akan berlaku seterusnya semasa kami membaca.</i>
22	It is important that my child asks questions about the characters, story, and setting as we read.	<i>Adalah penting untuk anak saya bertanya tentang watak, cerita dan latar semasa kami membaca.</i>
23	It is important that we pause to talk about the pictures as much as we read the story.	<i>Adalah penting untuk kita berhenti seketika untuk bercakap tentang gambar sebanyak mana kita membaca cerita.</i>
24	It is important that we find ways to relate the story to our life.	<i>Adalah penting untuk kita mencari cara untuk mengaitkan cerita tersebut dengan kehidupan kita.</i>
25	It is important that we look for lessons and morals from the stories we read.	<i>Adalah penting untuk kita mencari pengajaran dan moral daripada cerita yang dibaca.</i>
26	I am my child's most important teacher.	<i>Saya adalah guru yang paling penting bagi anak saya.</i>

#### Content Validation of Malay-Translated PRBS

There were eight experts on the panel for the content validation of Malay-Translated PRBS. The panellists include five speech-language therapists, two educationists, and a linguist; of the eight panellists, one was male and seven were female. Six of the expert panellists were Malay, and the other two were Chinese. Each had more than 10 years of work experience.

The questionnaire's content validity was assessed using CVR, CVI-Relevance, and CVI-Clarity methods. Of the 26 items, the CVR values ranged from 0.75 to 1.0 (20 items have CVR values of 1.0; six items have CVR values of 0.75) (see columns 1 and 2 in Table IV). Hence, no item was

needed for further modification as all items in the questionnaire are higher than or the same as the critical value.

Further, the I-CVI (relevance) of each Malay-translated PRBS item was higher than 0.83, indicating that all items must be retained on the questionnaire. There are 23 items scoring 1 and three items scoring 0.88. Calculations also revealed both the S-CVI/Ave (based on I-CVI) and the S-CVI/Ave (based on proportion relevance) values to be 0.99. Besides, S-CVI/UA has a value of 0.88, which is higher than 0.83. After considering all indices' values, the questionnaire items attained a high degree of relevance as all values were higher than 0.83. Table 2 shows all CVI-Relevance values of the Malay-translated questionnaire.

Table 2. Content Validity Index-Relevance of Items of Malay-translated PRBS

Items	P1	P2	P3	P4	P5	P6	P7	P8	Experts in Agreement	I-CVI	UA
1	1	1	1	1	1	1	1	1	8	1	1
2	1	1	1	1	1	1	1	1	8	1	1
3	1	1	0	1	1	1	1	1	7	0.88	0
4	1	1	1	1	1	1	1	1	8	1	1
5	1	1	1	1	1	1	1	1	8	1	1
6	1	1	1	1	1	1	1	1	8	1	1
7	1	1	1	1	1	1	1	1	8	1	1
8	1	1	1	1	1	1	1	1	8	1	1
9	1	1	1	1	1	1	1	1	8	1	1
10	1	1	1	1	1	1	1	1	8	1	1
11	1	1	1	1	1	1	1	1	8	1	1
12	1	1	1	1	1	1	1	1	8	1	1
13	0	1	1	1	1	1	1	1	7	0.88	0
14	1	1	1	1	1	1	1	1	8	1	1
15	1	1	1	1	1	1	1	1	8	1	1
16	1	1	1	1	1	1	1	1	8	1	1
17	1	1	1	1	1	1	1	1	8	1	1
18	0	1	1	1	1	1	1	1	7	0.88	0
19	1	1	1	1	1	1	1	1	8	1	1
20	1	1	1	1	1	1	1	1	8	1	1
21	1	1	1	1	1	1	1	1	8	1	1
22	1	1	1	1	1	1	1	1	8	1	1
23	1	1	1	1	1	1	1	1	8	1	1
24	1	1	1	1	1	1	1	1	8	1	1
25	1	1	1	1	1	1	1	1	8	1	1
26	1	1	1	1	1	1	1	1	8	1	1

  

Proportion Relevance (for each panellist)	0.92	1	0.96	1	1	1	1	1	S-CVI/Ave (based on proportion relevance) = 0.99	S-CVI/Ave (based on I-CVI) = 0.99
S-CVI/UA = 0.88										

Note: P: Panellist, I-CVI: Item-level Content Validity Index, UA: Universal Agreement

The I-CVI (clarity) values for each questionnaire item were higher than 0.83; where 22 items scored 1, whereas four items scored 0.88. This showed that every item was retained in the questionnaire. Table 3 illustrates all CVI-Clarity values of the Malay-translated questionnaire.

Table 3. Content Validity Index-Clarity of Items of Malay-translated PRBS

Items	P1	P2	P3	P4	P5	P6	P7	P8	Experts in Agreement	I-CVI
1	1	1	1	1	1	1	1	1	8	1
2	1	1	1	1	1	1	1	1	8	1
3	1	1	1	1	1	1	1	1	8	1
4	1	1	1	1	1	1	1	1	8	1
5	1	1	1	1	1	1	1	1	8	1
6	1	1	1	1	1	1	1	1	8	1
7	1	1	1	1	1	1	1	1	8	1
8	1	1	1	1	1	1	1	1	8	1
9	0	1	1	1	1	1	1	1	7	0.88
10	1	1	1	1	1	1	1	1	8	1
11	1	1	1	1	1	1	1	1	8	1
12	1	1	1	1	1	0	1	1	7	0.88
13	1	1	1	1	1	0	1	1	7	0.88
14	1	1	1	1	1	1	1	1	8	1
15	1	1	1	1	1	1	1	1	8	1
16	1	1	1	1	1	1	1	1	8	1
17	1	1	1	1	1	1	1	1	8	1
18	0	1	1	1	1	1	1	1	7	0.88
19	1	1	1	1	1	1	1	1	8	1
20	1	1	1	1	1	1	1	1	8	1
21	1	1	1	1	1	1	1	1	8	1
22	1	1	1	1	1	1	1	1	8	1
23	1	1	1	1	1	1	1	1	8	1
24	1	1	1	1	1	1	1	1	8	1
25	1	1	1	1	1	1	1	1	8	1
26	1	1	1	1	1	1	1	1	8	1

Note: P: Panellist, I-CVI: Item-level Content Validity Index

Overall, the CVR, CVI-Relevance, and CVI-Clarity results of the Malay-translated PRBS depicted acceptable and high content validity. None of the items needed further modification, and all were retained in the questionnaire. Table 4 summarises and compares each questionnaire item in terms of its CVR, I-CVI (relevancy), and I-CVI (clarity).

Table 4. Content validity ratio (CVR) and individual item content validity index (I-CVI) of the Malay-translated PRBS

Item	CVR	I-CVI (relevancy)	I-CVI (clarity)
1	1	1	1
2	1	1	1
3	0.75	0.88	1
4	1	1	1
5	1	1	1
6	1	1	1
7	1	1	1
8	1	1	1
9	1	1	0.88
10	1	1	1
11	1	1	1
12	0.75	1	0.88
13	0.75	0.88	0.88
14	0.75	1	1
15	1	1	1
16	0.75	1	1
17	1	1	1
18	0.75	0.88	0.88
19	1	1	1
20	1	1	1
21	1	1	1
22	1	1	1
23	1	1	1
24	1	1	1
25	1	1	1
26	1	1	1

As discovered in the current study, CVR for each item in the Malay-translated PRBS achieved at least 0.75, and the I-CVI values of CVI-Relevance and CVI-Clarity for every questionnaire item were higher than 0.83. Thus, no items needed modification, and all items were retained. However, content validity analysis helps researchers gain invaluable feedback from panellists and develop and assess the dimensions and subdimensions of the construct intended to be measured (Shrotryia & Dhanda 2019). Hence, after considering the recommendations of the panellists, items 14, 23, 24, and 26 were modified. In item 14, the phrase ‘*saya tidak merasakan kami mempunyai buku yang menarik minat*’ was paraphrased as ‘*saya berasakan kami tidak mempunyai buku yang dapat menarik minat*’ for improved clarity and ease of understanding. In item 23, the phrase ‘*berhenti seketika untuk bercakap tentang gambar sebanyak mana kita membaca cerita*’ was modified to

‘*berhenti membaca sebentar dan bercakap mengenai gambar di dalam buku tersebut*’ for conciseness and ease of understanding. Regarding item 24, the phrase ‘*kita mencari cara untuk mengaitkan cerita tersebut dengan kehidupan kita*’ was shortened to ‘*kita mengaitkan cerita yang dibaca dengan kehidupan kita*’ to simplify the sentence structure. In item 26, the sentence ‘*Saya adalah guru yang paling penting bagi anak saya*’ was restructured to ‘*Sebagai ibu/bapa, saya adalah guru yang paling penting bagi anak saya*’. The phrase ‘*Sebagai ibu/bapa*’ was added, as per the panellists’ suggestion, for improved clarity via addressing the person to whom the attitude mentioned in the item refers.

#### Reliability Test for Malay-Translated PRBS

The internal consistency of the Malay-translated PRBS was found to be considerably high. The total Cronbach’s alpha of the questionnaire is equal to

0.80. Cronbach's alpha was also calculated for each subscale of the questionnaire. For the *teaching efficacy* subscale, Cronbach's alpha is 0.73, whereas for the *positive affect* subscale, Cronbach's alpha is equal to 0.78. The Cronbach's alpha for *verbal participation* subscale is 0.77, while the *knowledge base* subscale has a Cronbach's alpha of 0.71. Regarding the *resources* subscale and *error correction* subscale, Cronbach's alpha is 0.97 and 0.73, respectively.

Due to the Malay-translated PRBS achieving high validity and reliability, Confirmatory Factor Analysis (CFA) was not performed in the current study. Besides, this study is about the translation of the questionnaire, not the development of a new questionnaire. Thus, Exploratory Factor Analysis (EFA) was not done in this study.

## DISCUSSION

Questionnaires have been widely translated around the world, as the questionnaire translation process is time- and cost-effective. Moreover, by employing appropriate procedures for the translation and validation of questionnaires, the translated questionnaires can be as effective as the original in measuring the desired construct. In this study, the English version of the PRBS was translated into the Malay language, and the Malay-translated PRBS was content validated using multiple quantitative metrics.

### Translation of the English Version of the PRBS to the Malay Version of PRBS

In the present study, two bilingual independent translators were involved in the forward translation, and two others were engaged in the backward translation. This method of translation was in line with Bouloukaki et al. (2013). Hall et al. (2018) suggested the requirement of a minimum of two bilingual translators in a questionnaire's translation process, which was fulfilled in this study. Moreover, the approach adopted in the present study was in accordance with the work of Saremi et al. (2022), who suggested that one of the translators should be aware of the purpose of the questionnaire to provide a translation that closely resembles the original instrument.

An expert committee discussion was held before producing the Malay-translated PRBS that will be further content validated. During the discussion, the expert committee focused on the wording, grammar mistakes, and the terminology of the questionnaire items. Moreover, the expert committee also makes sure the meaning of the translated items is similar to the original items'

meaning. After taking into consideration the above aspects, appropriate and necessary changes were made to produce the Malay-translated PRBS that will be further content validated. The reason for having an expert committee discussion is to make sure that the translated items resemble the original questionnaire items as accurately as possible.

### Content Validation and Reliability Testing of the Malay-translated PRBS

The content validity results revealed high CVR, CVI-Relevance, and CVI-Clarity values for all questionnaire items. Thus, all translated items were retained in the questionnaires, and no modifications were required. The satisfactory content validity results highlight the quality of the translation process. It also means that the experts could easily understand and were satisfied with the translated items, emphasising their clarity, grammatical correctness, conciseness, comprehensiveness, and ease of understanding among laypersons. The high quality of the translation can be attributable to the discussion among the expert committee before producing the translations for content validation.

There were a few aspects considered when validating the content validity of the items in the questionnaires. The purpose of considering those aspects is to ensure the items can be easily understood by laymen while maintaining the meaning of the original questionnaire items. The panellists focused on the clarity and the understandability of the items. Besides, the items were suggested to be modified to improve the conciseness and form a more simplified sentence structure. The overall sentence grammatical structure, appropriateness, and terminology were also taken into account when content validating the questionnaire items.

CVI is the most widely reported approach for evaluating content validity (Zamanzadeh et al. 2015; Wilson et al. 2012) and was therefore chosen for assessing the content validity in this study. The CVI can represent content validity evidence (Polit et al. 2007; Polit & Beck 2006). Several recent studies (Lau et al. 2018; Mohamad Marzuki et al. 2018; Hadie et al. 2017) have also employed CVI to confirm the content validity of an assessment tool, further supporting our choice of CVI for assessing the content validity.

An instrument's reliability plays a significant role in establishing the validity of the tool. Cronbach's alpha is the most frequently used statistic to determine internal consistency reliability (Polit & Beck 2004). For an instrument to be considered reliable, its Cronbach's alpha value must be at least 0.70 or above (Kilic 2016). In the current study, Cronbach's alpha for Malay-translated PRBS was

0.80, and that for each subscale in the questionnaire ranged from 0.71 to 0.97. Thus, the questionnaire's overall Cronbach's alpha value was acceptable and good. In comparison, the overall internal consistency reliability for the English version of PRBS ranged from 0.92 to 0.95 (York 2020), indicating that both questionnaires have excellent internal consistency. This finding also reveals that the Malay-translated PRBS is almost as reliable as the English version of PRBS. The Malay-translated PRBS's high internal consistency reliability can possibly be attributable to its appropriate translation and content validation.

After appropriate translation, validation, and reliability testing of the PRBS, the Malay-translated PRBS's final version was created. Table 5 shows all

items in the final version of the Malay-translated PRBS. The questionnaire's excellent translation, high content validity, and reliability indicate that it is ready to be used. As other countries besides Malaysia, such as Singapore, Brunei, and Indonesia, have the Malay language as their national language, future researchers can employ the final version of the Malay-translated PRBS to assess parents' attitudes towards reading with their children in these countries. These findings can significantly contribute to the research field in the future. The questionnaire is culturally acceptable and can thus be administered to any group interested in learning about parents' attitudes when reading with their children.

Table 5. The final version of the Malay-translated PRBS with 26 validated items

	<b>Item</b>
1	<i>Membaca membantu kanak-kanak menjadi penutur dan pendengar yang lebih baik.</i>
2	<i>Kanak-kanak belajar perkataan baharu daripada buku.</i>
3	<i>Membaca di rumah meningkatkan markah membaca di sekolah.</i>
4	<i>Bercakap tentang buku dan bercerita di rumah meningkatkan keseronokan membaca kanak-kanak.</i>
5	<i>Keseronokan membaca berhubung kait dengan prestasi membaca.</i>
6	<i>Membaca bersama anak di rumah dapat mengeratkan hubungan antara ibu/bapa dan anak.</i>
7	<i>Sebagai ibu/bapa, saya memainkan peranan penting dalam perkembangan literasi anak saya.</i>
8	<i>Saya ingin membantu anak saya belajar membaca, tetapi saya tidak tahu caranya.</i>
9	<i>Kanak-kanak boleh buat lebih baik di sekolah apabila ibu bapa juga mengajar mereka di rumah.</i>
10	<i>Berkongsi kepentingan membaca dengan anak saya akan menggalakkan mereka lebih banyak membaca.</i>
11	<i>Walaupun saya mahu, saya rasa terlalu sibuk dan letih untuk membaca kepada anak saya.</i>
12	<i>Saya mahu anak saya menyukai buku.</i>
13	<i>Adalah penting untuk membiarkan anak saya memilih buku untuk kami baca bersama.</i>
14	<i>Walaupun saya mahu, saya berasaskan kami tidak mempunyai buku yang dapat menarik minat anak untuk membaca.</i>
15	<i>Adalah penting untuk membaca dengan penuh keterujaan, supaya anak saya terus berminat untuk membaca.</i>
16	<i>Adalah penting untuk anak saya membantu saya bercerita semasa kami membaca.</i>
17	<i>Adalah penting untuk mengajar anak saya membunyikan perkataan yang asing baginya semasa kami membaca.</i>
18	<i>Adalah penting untuk membetulkan anak saya apabila dia membuat kesilapan semasa membaca.</i>
19	<i>Adalah penting untuk memuji dan menggalakkan anak saya apabila dia membaca kepada saya.</i>
20	<i>Adalah penting untuk membiarkan anak saya menjadi pencerita semasa kami membaca.</i>
21	<i>Adalah penting untuk bertanya kepada anak saya apa yang dia fikir akan berlaku seterusnya semasa kami membaca.</i>
22	<i>Adalah penting untuk anak saya bertanya tentang watak, cerita dan latar semasa kami membaca.</i>
23	<i>Adalah penting untuk kita berhenti membaca sebentar dan bercakap mengenai gambar di dalam buku tersebut.</i>
24	<i>Adalah penting untuk kita mengaitkan cerita yang dibaca dengan kehidupan kita.</i>
25	<i>Adalah penting untuk kita mencari pengajaran dan moral daripada cerita yang dibaca.</i>
26	<i>Sebagai ibu/bapa, saya adalah guru yang paling penting bagi anak saya.</i>

## Study Limitations and Future Directions

The current study only focuses on the content validity and reliability testing of the Malay-translated PRBS. Other measures, such as face, construct, and concurrent validity, were not administered. The convergent validity could not be performed for Malay-translated PRBS as no standard tool exists for correlation. Factor analysis (EFA and CFA) was not performed on the Malay-translated PRBS. Thus, future research was suggested to perform face, construct, and concurrent validity, as well as factor analysis on the Malay-translated PRBS, to strengthen the questionnaire. Besides, as there were 50 participants who participated in reliability testing in this study, future studies are recommended to include more participants for reliability testing to increase the reliability of the questionnaire. This Malay-translated PRBS is intended to be applied to the Malaysian people as well as other Malay-speaking populations (e.g. Singaporeans, Bruneians, and Indonesians) by future researchers to obtain information about parents' attitudes towards reading to children. The data obtained could facilitate future researchers in developing intervention methods to improve parents' reading attitudes, as well as other professionals, such as speech and language pathologists, counsellors, and psychologists, in providing recommendations. Besides, this instrument can also be used in clinical settings to help prescribe therapy plans and methods.

## CONCLUSION

The original English version of the *Parent Reading Beliefs Survey* (PRBS) was translated, validated, and reliability tested to develop the finalised Malay-translated version of PRBS. The translation process included forward and backward translation. As for validation, the Malay-translated questionnaire was further content validated through CVR, CVI-Relevance, and CVI-Clarity methods. The questionnaire was reliability tested using internal consistency reliability. The obtained results suggest that the Malay-translated version of PRBS has high validity and reliability and can thus be considered valid, reliable, and ready to evaluate parents' attitudes towards reading with their children among the Malaysian and Malay-speaking population. The final Malay version of PRBS is expected to enable future researchers to collect data about parents' attitudes when reading with their children and better contribute to this research field. Furthermore, the translated questionnaire will allow upcoming researchers to investigate additional facets of parents' attitudes when reading with their children and implement the findings in intervention methods.

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