

Psychometric Properties of The Malay Version-Revised Five-To-Fifteen (5-15R) Parental Questionnaire (Malay-5-15R)

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ABSTRACT

Background: There are limited available or published questionnaires that suit the Malay-speaking population to screen or assess child development, such as physical development, behaviour, emotions, cognition, communication skills, or socialisation. Standardised questionnaires completed by parents and teachers can provide different perspectives on the children with behaviour and developmental needs. It can be a supporting assessment for the professionals to support the diagnosis of the children. Thus, the current study focuses on other psychometric properties to validate the initial version of Malay-5-15R. **Methods:** The initial version of the Malay Version-Revised Five-To-Fifteen (5-15R) questionnaire has been content validated by the experts from the previous study. The validity of Malay-5-15R was further examined by conducting 1) pre-testing and face validity; 2) proofreading; and 3) pilot study. **Results:** The initial version of the Malay-5-15R questionnaire was found to be easily understood by participants during pre-testing. A pilot study was conducted on the two groups of population: parents with normally developing children and parents with children having a secondary diagnosis. Results showed that the initial version of the Malay-5-15R exhibited sufficient internal consistency ($\alpha > 0.93$) and demonstrated an excellent coefficient of stability with a correlation coefficient value of 0.98. For convergent validity, most of the Malay-5-15R items have a significant correlation with items in the sub-domains, with r-values of greater than 0.30 ($p < 0.05$). Regarding divergent validity, about 99% of the items were correlated with r-values below 0.85 ($p < 0.05$). **Conclusion:** This study concluded that the Malay 5-15R questionnaire has good face validity, internal consistency reliability, test-retest reliability, convergent validity, and divergent validity, which are part of the psychometric properties. Therefore, it shows that the Malay 5-15R questionnaire is valid and reliable for use in the Malay-speaking population.

Keywords:

five-to-fifteen; 5-15R questionnaire; pre-testing; face validity; pilot study

INTRODUCTION

Parents nowadays are concerned about their child's development. Early developmental milestones are the most significant period to be tracked to promote normal, typical development in children. The probability of upcoming health issues and educational challenges rises drastically if one or more developmental areas are delayed, such as physical development, behaviour, emotions, cognition, communication skills, or socialisation (Camden et al., 2019). According to Khan and Leventhal (2020), developmental screening needs to occur at the onset of clinical concerns, in response to parental worries, during the critical age between 0;09 to 2;05 years old.

For example, autism-specific screening tests are recommended at 18 and 24 months. A thorough assessment and follow-up are necessary because variations in the environment can cause developmental

delays or they can be a sign of a developmental problem such as cerebral palsy, autism, or sensory or cognitive impairment. Therefore, the use of validated screening tools for children can help in the earlier identification of significant developmental delays. According to Shaw et al. (2023), it is critical to recognise neurodevelopmental disorders at an early age to guarantee that children have access to any services to help them develop those abilities.

Early identification offers the advantage of early intervention, which improves adaptive abilities and developmental outcomes. Early detection enables the utilisation of specialised interventions that address social communication, language development, and behavioural issues and are catered to the distinctive needs of individuals with autism spectrum disorder. Additionally, early diagnosis facilitates improved coping techniques, lowers anxiety among parents, and increases adult independence by giving families access to the right support

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services, educational materials, and community programmes (Okoye et al., 2023; Shaw et al., 2023).

LITERATURE REVIEW

Using structured, standardised parent or teachers' questionnaires has become more prominent in the early identification of developmental delays. These tools are affordable in terms of both professional resources and time, and they are straightforward to administer. Evaluations by parents are reasonably accurate when it comes to behavioural issues and symptoms (Korkman et al., 2004). When assessing children and adolescents with multiple mental health disorders, behavioural and learning difficulties, questionnaires and rating scales with strong psychometric properties have proven to be useful supplements to testing and interviews (Bohlin & Janols, 2004). Questionnaires can serve as a tool for health professionals to evaluate and as a screening tool for parents before deciding to undergo any formal evaluation by related professionals. These can be supplementary findings for health professionals rather than just assessing the child in the clinical setting. In Malaysia, there is a limited number of available or published questionnaires that suit the Malay-speaking population.

The Five to Fifteen (FTF) Questionnaire is one of the parental questionnaires that provides insights into children's behaviour and developmental problems. It was developed since 2004 by Björn Kadesjö, Lars-Olof Janols and Christopher Gillberg (Sweden); Marit Korkman and Katarina Mickelsson (Finland); Gerd Strand (Norway) and Anegen Trillingsgaard (Denmark). The purpose of the questionnaire is to lead the professionals to identify and measure cognitive, language, and motor impairment as well as social, emotional and behavioural problems of children and adolescents (Kadesjö et al., 2004).

The main objective of the FTF Questionnaire is to help parents evaluate how well their children function on every occasion, including their abilities and weaknesses. The parents can make developmental comparisons between their children and typical peers of their age before further assessment. It is shown that parents are reliable and valid sources of providing information about their child's development. Their early detection can contribute to early intervention and better prognosis (González et al., 2021). Other questionnaires have a similar purpose as the FTF Questionnaire, such as the Child Behaviour Analysis (CBCL), Child and Adolescent Psychiatric Assessment (CAPA), Devereux Scales of Mental Disorders (DSMD), and Behavioural Assessment System for Children (BASC) (Angold et al., 1995; Naglieri et al., 1994; Reynolds &

Kamphaus, 1992; Achenbach, 1991).

Currently, the FTF Questionnaire has been revised since 2017 by the Nordic research group to enhance the comprehensiveness of the parents' questionnaire. The term "FTF" is also being substituted into "5-15R". The revised questionnaire includes the teachers' questionnaire, as the child behaviours can also be evaluated outside the family context. The questionnaire also extended the age range from five to fifteen years old and is currently applicable to children aged five to seventeen years old, as children's developmental issues need continuous monitoring from time to time. Impact questions were also included, as there is inconsistent information regarding the symptoms with the parents' experience of impairment (Kadesjö et al., 2017).

The 5-15R questionnaire was chosen in this study because it captures parents' perceptions of the abilities and shortcomings of their children across a broader range of developmental areas. Specifically, it encompasses eight major domains: motor skills, executive function, perception, memory, language, learning, social skills, and emotional/behavioural problems (Kadesjö et al., 2017). Other questionnaires focus solely on behaviour/emotion, such as CBCL, DSMD, and BASC. While Five-to-Fifteen-Revised (5-15R) (previously known as FTF Questionnaire) covers a range of developmental domains. While the CAPA is very detailed for psychiatric diagnoses and the DSMD for severe disorders, the 5-15R offers a more general developmental assessment, making it more versatile for various issues. 5-15R provides detailed scoring and feedback for targeted interventions, offering more specific feedback in certain developmental areas compared to other tools.

The domains in the 5-15R Questionnaire are suitable to evaluate children with neurodevelopmental or neuropsychiatric disorder especially for attention deficit hyperactivity disorder, autism spectrum disorders (ASD), tic disorders, developmental coordination disorder (DCD), oppositional defiant disorder (ODD), conduct disorder (CD), emotional disorder, learning problems, or symptoms in these areas (Lindblad et al., 2011).

The 5-15R questionnaire has been translated and adapted from English to the Malay language in the previous study (Zainal & Jusoh, 2023). However, the adaptation process is only completed until content validation. To use the Malay-5-15R as an evaluation or screening tool in the Malay-speaking population, further psychometric features must be established, as the validation procedure is still progressing. Other than that, there was a limited number of available or published parental questionnaires that have

been translated into Malay, especially related to the developmental and behavioural issues of the children.

METHODOLOGY

The initial version of Malay-5-15R has been translated, adapted, and validated for content by Zainal and Jusoh (2023). Thus, the current study aims to continue the validation process (i.e., face validity and pre-testing processes) to improve the questionnaire's validity and identify problems that might only be noticeable to the targeted population during answering the questionnaire (Reynolds et al., 1993). Next, the proofreading process is needed to improve the sentence structure, grammar, and wording of the questionnaire by Bahasa Melayu experts among teachers and lecturers. Then, pilot testing will be conducted in two periods of time, with a two-week gap. The pilot study mainly examines the internal consistency reliability, test-retest reliability and inter-item correlation (to assess the convergent and divergent validity) within and between domains in Malay-5-15R.

Sample Size

The subject of the research study was recruited through purposive sampling. It is a non-probability sampling technique that aims to help answer research questions by concentrating on specific aspects of a population that are of interest (Rai & Thapa, 2015). The subjects were chosen based on the inclusion criteria.

According to Reynolds et al. (1993) and Julious (2005), a minimum sample size of 5 to 10 subjects is suggested for pre-testing and face validity, particularly for healthcare-related surveys. In a pilot study, it is suggested that a minimum sample size of 12 subjects is needed so that it is ready to be used in the Malaysian population (In, 2017). Bonnet and Wright (2014) recommended that the sample size for test-retest reliability should be at least 30 subjects to have a strong intercorrelation.

Subjects

For pre-testing and face validity process, 7 parents with normally developing children aged between 8 and 17 years old were recruited in the study. During the proofreading process, one lecturer from the Institut Pendidikan Guru (IPG) and one secondary school teacher who majored in Bahasa Melayu volunteered to be the proofreaders. During the pilot study, two groups consisted of parents of normally developing children ($n = 15$) and parents of children with a secondary diagnosis ($n = 15$). Both groups

must have children aged between 8 and 17 years old, respectively. It can improve the generalizability of their findings by better understanding how the participants answer the Malay-5-15R questionnaire by comparing two groups. The findings between the groups are compared based on the answers given by the participants (Shadish & Campbell, 2002).

Materials

For this research study, the initial version of the Malay-5-15R by Zainal and Jusoh (2023), which has been content-validated, was used for further evaluations of its psychometric properties. The 181 items remain the same in the questionnaire.

Research Design

The quantitative and qualitative research designs were chosen for the research design. As for the pre-test and face validity, it has been measured quantitatively and qualitatively. These non-numerical observations are arranged, compiled, and interpreted using qualitative data analysis. The development of concepts that help understand the causes of occurrences in natural contexts, as opposed to experimental ones, is the aim of qualitative research. It provides an appropriate focus on the meanings, experiences, and opinions of each participant in the research study (Verhoef & Casebeer, 1997).

In the proofreading process, it has been measured qualitatively by gathering proofreaders' comments and suggestions for the content-validated questionnaire. As for the pilot study, it can be measured quantitatively using IBM Statistical Package for the Social Sciences (SPSS) Statistics 20 software for internal reliability and convergent-divergent validity testing.

Procedures

Pre-testing

Participants, who were seven parents of normal developmental children aged between 8 to 17 years old, were recruited through social media such as WhatsApp and Facebook. The initial version of Malay-5-15R was in the Google Form platform and distributed through social media. The aim of the pre-testing and face validity is to rate the quality of the questionnaire based on criteria such as readability, feasibility, wording clarity, layout, and style of the questionnaire (Venkitachalam, 2015). The participant will rate it as 'yes' (1 mark) and 'no' (0 mark) for each criterion.

Proofreading

After taking some considerations from the comments from the pre-testing and face validity, proofreading of the questionnaire is needed to identify any grammatical and wording errors used and the appropriateness of the sentence structure in the questionnaire. One-week period was given to the proofreaders to complete the proofreading process. After that, the researcher will make amendments from the suggestions from the proofreaders.

Pilot Study

A pilot study was conducted to examine its internal consistency reliability, test-retest reliability, and inter-item correlation (for convergent and divergent validity). A pilot study is needed as one of the validation processes to detect any issues or gaps in those questionnaires within a small group of the intended subjects (Gudmundsson, 2012). Additionally, it can evaluate the target population's comprehension and challenges with completing the questionnaire (Hassan et al., 2006).

Parents received questionnaires for the pilot study via online (Google Form) methods. The questionnaires were given to parents who resided close to the researcher's location, the International Islamic University Malaysia (IIUM) Hearing and Speech Clinic (HSC), Indera Mahkota Campus, for online distribution. The researcher had obtained permission from the clinic manager of the IIUM HSC to recruit subjects from the clinic via the online method. Online invitations and links to take part in the pilot study were distributed for the online questionnaire using two different channels: 1) social media (such as Facebook); and 2) WhatsApp and Telegram groups.

Following their agreement to take part in the pilot study, parents were requested to complete the Malay-5-15R form after receiving the informed consent through Google Form. Instructions were given to the participants to complete the Malay-5-15R form. It is recommended by studies from Trochim and Donnelly (2008) that, for the second pilot study, the subjects had two weeks to complete the questionnaire once more. This two-week gap is considered a long enough timeframe to avoid recall effects (Trochim & Donnelly, 2008). The questionnaire was sent back to the respondents via email and WhatsApp.

Data analysis

This study was conducted from pre-testing to the pilot study. All data were analysed descriptively (i.e., bar charts) and statistically (using Statistical Package for the Social Sciences version 20 (SPSS 20 Software)). The proposed data analysis based on the objectives is summarised in Table 1:

According to George and Mallery (2010), Cronbach's α values for internal consistency reliability are considered acceptable when they are greater than 0.70. Values less than 0.70 are considered questionable and require further review. According to DeVon et al. (2007), for convergent validity, inter-item correlation values of more than 0.30 were considered sufficient and a significant correlation between the domains. The significant correlations show that the domains were measured to have a similar construct and support each other (Napper et al., 2008). For divergent validity, in contrast to convergent validity, Campbell and Fiske (1959) proposed that divergent validity could be demonstrated if the r -value for inter-item correlation was less than 0.85.

Table 1: Summary of Data Analysis According to the Specific Objectives

Objectives	Expected Data	Proposed Data Analysis
To determine the face validity of the Malay-5-15R	Scores of readabilities, feasibility, wording clarity, style for each item in the questionnaire; Comments and suggestions by the subjects	Descriptive data analysis
To examine the internal consistency reliability of the Malay-5-15R	The scores of Malay-5-15R of all subjects	Statistical data analysis - Cronbach's alpha method
To examine the test-retest reliability of the Malay-5-15R	The scores of Malay-5-15R of all subjects	Statistical data analysis - Intra-class correlation coefficient (ICC)
To examine the convergent and divergent validity within and between domains of the Malay-5-15R	The scores of Malay-5-15R of all subjects	Statistical data analysis - Inter-item correlation

RESULTS

Pre-testing and Face Validity

The initial version of the Malay-5-15R was pre-tested on the parents of children with normal developmental ages between 8 and 17 years old (n=7). The participants were asked to rate the items in this initial version based on their criteria of readability, feasibility, wording clarity, layout and style of the questionnaire using a yes or no method (Venkitachalam, 2015). The items with a percentage of 90% and above were considered acceptable in this study (Yusoff, 2019). For this study, the researcher found that all eight domains of the pre-testing score were acceptable, with a 100% score for readability, feasibility, and layout and style, while the score for clarity of words was 91.7%. The time taken to complete the initial version of the Malay-5-15R was longer, as reported by all participants, who took about 10 to 25 minutes to complete the questionnaire. One participant is given some suggestions for the questionnaire on the impact question parts (e.g.,

suggested on “Tidak Berkaitan” option for the impact question). Other than that, other participants reported that all items were understandable. Modification was made according to the comments and suggestions by participants, with the total number of items remaining 181.

Proofreading

Next, two Malay language experts proofread the initial version of the Malay-5-15R before it was pilot tested with the actual and intended population. Both experts have more than five years of experience teaching Bahasa Malaysia (BM); one teaches at SMK Tamparuli, Sabah, a secondary school, and the other is a lecturer at Institut Pendidikan Guru, Kampus Kent, Sabah. After a week of proofreading the questionnaire, a few minor grammatical mistakes were found in this initial version. The finalised version of the Malay-5-15R (Appendix A) was created as a result of the adjustments made. Table 2 shows some of the amendments from the initial version.

Table 2: Amendments from the initial version of Malay-5-15R

No	Items	Proofreader 1	Proofreader 2	Finalized version
27	Selalu dalam pergerakan berterusan atau sukar duduk diam (jari bergerak- gerak, mencabut sesuatu dan lain-lain)	Sentiasa bergerak atau sukar duduk diam (jari bergerak- gerak, mencabut sesuatu dan lain-lain)	Selalu bergerak secara berterusan atau sukar duduk diam (jari bergerak- gerak, mencabut sesuatu dan lain-lain)	Selalu bergerak secara berterusan atau sukar duduk diam (jari bergerak- gerak, mencabut sesuatu dan lain-lain)
61	Kesukaran mengingat maklumat tentang data peribadi, seperti tarikh lahir, alamat rumah dan sebagainya	Kesukaran untuk mengingat maklumat tentang data peribadi, seperti tarikh lahir, alamat rumah dan sebagainya	Kesukaran mengingat maklumat berkaitan data peribadi, seperti tarikh lahir, alamat rumah dan sebagainya	Kesukaran untuk mengingat maklumat berkaitan data peribadi, seperti tarikh lahir, alamat rumah dan sebagainya

Pilot Study

Thirty-five participants were recruited using the purposive sampling method for the pilot study. The inclusion criterion for this pilot study was a group of parents having typically developing children aged 8 to 17 years old (n=19). Another group was parents having children with secondary diagnoses aged 8 to 17 years old (n=16). All the responses and data were analysed for further statistical analysis using SPSS 20. In this pilot study, two different reliability analysis techniques were used. These were: i) the test-retest reliability was determined using the intra-class correlation coefficient (ICC); ii) the internal consistency of the items was assessed using the Cronbach's alpha method. From this pilot study, the convergent and divergent validity

analysis was also calculated. Below is an explanation of the reliability and validity analyses' findings.

Internal Consistency Reliability Analysis

The coefficient alpha value showed the internal consistency of the initial version of the Malay-5-15R. Based on this result, it has been found that the initial version of Malay-5-15R has excellent values for each of its sub-domains ($\alpha = 0.93 - 0.97$) and an excellent overall α value of 0.99. Table 3 displays the specific values of α for every sub-domain. According to these findings, the initial version of the Malay-5-15R exhibited excellent internal consistency ($\alpha > 0.93$), indicating that it was prepared for validation testing against a broader sample.

Table 3: The Internal Consistency of the Initial Version of Malay-5-15R

Sub-domains	Coefficient alpha values (α)	Description
Motor skills	0.95	Excellent
Executive functions	0.97	Excellent
Perception	0.93	Excellent
Memory	0.95	Excellent
Language and communication	0.97	Excellent
Learning skills	0.96	Excellent
Social skills	0.97	Excellent
Mental health problems	0.97	Excellent

Test-retest Reliability Analysis

In the test-retest reliability process, the same subjects will answer the questionnaire again, with a two-week gap after the first pilot study. The consistency of the questionnaire's scoring over time was assessed using the intra-class correlation coefficient (ICC) analysis. The initial Malay-5-15R version demonstrated an excellent coefficient of stability in the ICC analysis, with a correlation coefficient of 0.98 (Williams, 2003). As for the coefficient stability, which was nearly 1, the result showed that each participant's score was closely associated with both pilot study 1 (P1) and pilot study 2 (P2). Each participant's responses in P2 were almost identical to those in P1. Thus, since the total item reliability of each domain and the scale was sufficient to proceed with other validation testing, no further modifications or amendments were required for the initial version of Malay-5-15R.

Convergent and Divergent Validity

The convergent and divergent validity were used for further validity testing. It is measured using inter-item correlation for validity testing. Most of the initial version of the Malay-5-15R items, as in Table 4, have a significant correlation with items in the sub-domains, which are 89% of items, with r-values of greater than 0.30 ($p < 0.05$), demonstrating convergent validity. The inter-item correlations of items from the Motor Skills domain were strongly correlated for divergent validity, as shown in Table 4, with r-values below the permitted value of 0.85 ($p < 0.05$) (Campbell and Fiske, 1959). As a result, the divergent validity of the Malay-5-15R for these domains was similarly acceptable. However, it is an exception for other sub-domains, whereby the r-values exceeded the recommended values, which were within 0.86-0.94.

Table 4: The Summary of Convergent and Divergent Validity Through Inter-Item Correlation Analysis

Domains	Convergent Validity (r)	Divergent Validity (r)
Motor skills	0.05 - 0.80	-0.31 - 0.84
Executive functions	0.08 - 0.90	-0.20 - 0.86
Perception	-0.61 - 0.84	-0.21 - 0.87
Memory	0.31 - 0.85	-0.13 - 0.87
Language and communication	-0.37 - 0.94	-0.19 - 0.94
Learning skills	-0.60 - 0.92	-0.31 - 0.87
Social skills	0.04 - 0.91	-0.13 - 0.88
Mental health problems	-0.95 - 0.92	-0.16 - 0.94

DISCUSSION

The study was designed to describe the psychometric properties of the initial version of Malay-5-15R, which included reliability and validity testing. The initial version of Malay-5-15R needs further validation to be used among parents of the Malay-speaking population and other health professionals. For this study, the validation process was continued until the stages of convergent and divergent analysis.

Firstly, the pre-testing and face validity were conducted on small groups of parents with typically developing children aged 8 to 17 years old. Overall, all eight domains of the Malay-5-15R score were acceptable, with a 100% score for readability, feasibility, and layout and style, while the score for clarity of words was 91.71%. It is equivalent to the studies by Kadesjö et al. (2004), which reported the items from the 5-15R as highly relevant. However, the subjects reported that it takes almost 10 to 25 minutes to answer the 181 questions in Malay-5-15R. Both Galesic and Bosnjak (2009) and Sandelin (2022) report similar findings, as answering lengthy questionnaires has both advantages and disadvantages. Thus, providing subjects with additional time to answer a questionnaire allows them to think it through and provide a more accurate and comprehensive response. Length durations contribute to lower mistake rates and higher-quality data overall. Although this Malay-5-15R questionnaire is quite lengthy, according to Ziegler et al. (2014), long questionnaires can cover the entire domain of a construct, making them suitable for situations requiring a comprehensive assessment. Longer questionnaires are more likely to cover every aspect of a construct and can differentiate respondents across a wide variety of demographics, which results in a more comprehensive and deeper analysis. In contrast, longer questions appeared to have an adverse effect on response rates. Other than that, subjects may become uninterested as the long questionnaire carries on, which could result in fewer meaningful and engaging answers. However, as this questionnaire is still in the early stages of the validation process, all items were retained despite some parents expressing concerns about its length. This decision was made because further validation procedures, such as assessing construct validity, may be necessary to enhance its overall validity. Based on the findings from construct validity analysis, irrelevant items can be identified and subsequently removed to reduce the total number of items in the questionnaire.

After the pre-testing and face validity, the questionnaire was proofread before conducting a pilot study. Based on this study, only a few minor grammatical mistakes were

found in this initial version. Other than that, there are no significant issues in this initial version, Malay-5-15R. Proofreading is needed for this study as the initial version of Malay-5-15R has been cross-culturally adapted and translated in the previous study. The role of proofreaders is to find any mistakes that were missed in the initial translation and fix them accordingly to suit the Malay-speaking population. This includes grammatical mistakes, incorrect terms, and sentence problems that potentially alter the meaning. This can enhance the quality of the questionnaire (Niki, 2015). Overall, the initial version of Malay-5-15R is suitable for use by the Malay-speaking population.

For internal reliability, the research conducted on children in the Swedish population by Kadesjö et al. (2004) and the Danish population by Lambek & Trillingsgaard (2014) reported acceptable to excellent Cronbach's alpha values for all subdomains. It is equivalent to the initial version of Malay-5-15R, which has excellent values for each of its sub-domains ($\alpha = 0.93 - 0.97$) and an excellent overall α value of 0.99. As the reliability is good, it produces similar scores of the Malay-5-15R when being tested repeatedly over time. Illum and Gradel (2014) obtained a similar result, which was tested with parents having neurological disabilities in children. It also reported an excellent Cronbach's value for all subdomains ($\alpha = 0.96$). Trillingsgaard et al. (2004) also conducted the clinical validity and utility of the FTF, and its resulting internal consistency was high, with a Cronbach's Alpha ranging from 0.84 to 0.93. However, for the Malaysian context, there is still a limited number of studies that relate to the usage of Malay-5-15R.

Next, other psychometric properties, which are the test-retest reliability of the Malay-5-15R, were also measured in this study by using ICC analysis. It is found that the Malay-5-15R have an excellent coefficient of stability using the ICC analysis, with a correlation coefficient value of 0.98. As a result, even after testing over a different period, it was concluded that this questionnaire was sufficiently stable and consistent. Kadesjö et al. (2004) also obtained a similar result, as the overall retest stability over time was good, which ranged from 0.74 to 0.91.

Furthermore, this study also aimed to confirm the convergent and divergent validity of the items in the Malay-5-15R by measuring the inter-item correlations. This study managed to obtain a strong correlation for most of the items (89%) in the sub-domains, with r-values of greater than 0.30, demonstrating that convergent validity was established. This indicated that most items within the

same sub-domains had strong correlations, suggesting that the Malay-5-15R sub-domain's convergent validity was acceptable. Good convergent validity means that Malay-5-15R measures the desired construct precisely and consistently, which is essential for a questionnaire. Besides, the items from each domain from Malay-5-15R are relevant and correlated with each other. Trillingsgaard et al. (2004) also conducted a validity study in which three of the four relevant FTF domains (e.g. language, learning and perception) were tested for convergent validity in relation to the Wechsler Intelligence Scale for Children - Third Edition (WISC-III). The study showed that language and learning domains in FTF have a significant correlation with WISC domains, with r-values between 0.38 and 0.47.

The divergent validity was also established for the Motor Skills domain, with r-values of less than 0.85, while the other domains exceeded the recommended values. About 0.01% of the items in Malay-5-15R were more than 0.85. This indicates that the items from those domains may not be distinct enough from each other. Other than that, high divergent validity might suggest that the constructs overlap with items from other domains, indicating they assess the same or related underlying concepts rather than distinct ones (Campbell & Fiske, 1959). Table 5 shows an example of items from the questionnaire that portray high

divergent validity. From the example, the divergent validity value was 0.86. The item FE023 was strongly correlated with its own domain (Executive Function) rather than another domain (Memory). It is due to the r-values from its own domain being higher than those from the other domain. In contrast with ME070, it was strongly correlated to other domains (FE) rather than its own domain (ME) due to the lower r-values. Trillingsgaard et al. (2004) also conducted a validity testing for FTF questionnaire among Danish diagnostic groups. The study measures the convergent validity that refers to the ability of the FTF to distinguish between children with different diagnostic conditions and normal children. Based on the study, all the domains except for Mental Health Problems showed significant differences between the diagnostic groups and the norm sample, indicating good discriminant validity.

There are certain items that do not achieve acceptable divergent validity. Other psychometric properties may be beneficial as they can further examine the Malay-5-15R questionnaire. Besides, this can help to revise and review the items in the Malay-5-15R. Thus, it is recommended to examine its construct validity of the Malay-5-15R to determine whether the item is loading to the intended domains using factor analysis (DeVon, 2007).

Table 5: Example of Items Having High Divergent Validity

Items	Divergent (r-values)	Question	Items	Divergent (r-values)	Question
FE023	0.88	Sering mengelak, tidak suka, atau enggan melibatkan diri dalam tugas yang memerlukan usaha mental (tumpuan pemikiran) yang berterusan (seperti kerja rumah)	ME070	0.79	Kesukaran mengingat arahan yang panjang atau arahan berbilang langkah
BA081	0.94	Kesukaran menjelaskan apa yang dia mahu	KS125	0.84	Kesukaran menerangkan emosi secara lisan apabila berasa kesunyian, bosan dan lain-lain

CONCLUSION

This study concluded that the Malay-5-15R questionnaire has good face validity, internal consistency reliability, test-retest reliability and convergent and divergent validity, which are important psychometric properties in a questionnaire. To ensure a good translation and adapted questionnaire, a validation and reliability process is required to make it useful to the Malay-speaking population. In Malaysia, there are still lacking assessment

tools or rating scales that are translated and adapted into Malay, as there are specific questions that are not suitable and appropriate to our culture. Thus, the translated and validated version of Malay-5-15R will be one of the tools that can be used among the parents, teachers and professionals in the clinical setting in Malaysia, as it gives an impression of deficits in certain domains in Malay-5-15R.

LIMITATIONS AND FUTURE RECOMMENDATIONS

This study has a few limitations that should be addressed. Firstly, the process of this study is only completed until convergent and divergent validity. This is because the 181 items in Malay-5-15R affect how long it takes the subjects and the researcher to finish the pilot study part. Thus, other psychometric properties should be examined in future studies to produce the finalised version of Malay-5-15R. Further validation process may impact some of the items, which will produce a shorter and revised version of Malay-5-15R. This will shorten the parents' questionnaire completion time without limiting the amount of information required from them.

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Appendix A: Finalised Version of Malay-5-15R Questionnaire

5-15R Questionnaire: Evaluation of Development and Behaviours for Children and Adolescents

Arahan:

Tandakan pada kotak yang mengandungi kenyataan yang anda rasa paling sesuai dengan kelakuan anak anda dalam situasi harian berbanding dengan kanak-kanak sebaya mereka. Sila fokus kepada kelakuan anak anda dalam tempoh 6 bulan kebelakangan. Bagi mendapatkan gambaran yang tepat tentang kelakuan anak anda adalah penting untuk anda melengkapkan semua soal selidik ini.

Anda akan ditanya sekiranya kefungsiannya anak anda dalam pelbagai domain menimbulkan masalah dalam kehidupan seharian. Sila pertimbangkan sama ada masalah tersebut memberi kesan kepada anak anda dan orang lain di rumah, sekolah dan dalam kalangan rakan-rakan.

No.	Item	Pemarkahan		
		Tidak berlaku	Kadangkala berlaku	Berlaku
Kemahiran motor - kemahiran motor kasar; penggunaan badan anak dalam pelbagai aktiviti				
1.	Kesukaran menguasai kemahiran motor baharu seperti belajar menunggang basikal, bermain papan luncur, dan berenang			
2.	Kesukaran membaling dan menangkap bola			
3.	Kesukaran untuk berlari laju			
4.	Mengalami kesukaran atau tidak suka untuk menyertai sukan seperti bola sepak, hoki padang, dan bola keranjang			
5.	Masalah keseimbangan; contohnya kesukaran berdiri menggunakan satu kaki			
6.	Kerap tersadung dan jatuh			
7.	Cuai atau membuat pergerakan janggal			
Kemahiran motor - kemahiran motor halus; penggunaan tangan anak:				
8.	Tidak suka melukis, mengalami kesukaran melukis rajah yang menggambarkan sesuatu			
9.	Kesukaran mengendali, memasang dan memanipulasi objek kecil			
10.	Kesukaran menuang air ke dalam gelas tanpa tumpah			
11.	Kerap menumpahkan makanan ke atas pakaian atau meja ketika makan			
12.	Kesukaran menggunakan pisau, sudu dan garfu			
13.	Kesukaran mengenakan butang pada pakaian atau mengikat tali kasut			
14.	Kesukaran menggunakan pen (contoh: tekan terlalu kuat, tangan menggeletar)			

15.	Perkembangan tangan dominan yang tidak jelas, iaitu, tidak jelas sama ada dominan pada tangan kanan atau kidal			
16.	Sukar dan lambat untuk menulis			
17.	Pegangan pensel yang tidak kukuh, iaitu memegang pen dengan cara yang berbeza/luar biasa			
<p>Jika anda memilih 'Kadangkala Berlaku' atau 'Berlaku' untuk soalan di atas, adakah masalah dengan fungsi motor mengganggu fungsi harian anak anda?</p> <p>Tidak berkaitan Tidak sama sekali Sedikit Agak banyak Sangat banyak</p>				
Perhatian dan tumpuan: Keupayaan anak untuk memberi perhatian dan tumpuan terhadap pelbagai tugas dan aktiviti:				
18.	Selalu gagal memberi perhatian sepenuhnya terhadap butiran atau membuat kesilapan kerana cuai			
19.	Selalu mengalami kesukaran untuk mengekalkan tumpuan terhadap tugas atau aktiviti bermain			
20.	Selalu kelihatan seperti tidak mendengar apabila bercakap secara langsung dengannya			
21.	Mempunyai masalah untuk mengikut arahan dan gagal menyiapkan kerja sekolah, kerja rutin atau tugas			
22.	Selalu mengalami kesukaran untuk mengatur tugas dan aktiviti			
23.	Selalu mengelak, tidak suka, atau enggan melibatkan diri dalam tugas yang memerlukan usaha mental (tumpuan pemikiran) yang berterusan (seperti kerja rumah)			
24.	Selalu kehilangan barang yang diperlukan untuk tugas atau aktiviti (contoh, alat permainan, dan peralatan sekolah)			
25.	Selalu mudah terganggu dengan rangsangan luar (contoh, bunyi yang tidak relevan seperti orang lain bercakap, bunyi kereta yang dipandu)			
26.	Selalu terlupa sesuatu dalam melaksanakan aktiviti seharian			
Terlalu aktif dan impulsif; kecenderungan anak untuk menjadi terlalu aktif atau impulsif:				
27.	Selalu bergerak secara berterusan atau sukar duduk diam (jari bergerak- gerak, mencabut sesuatu dan lain-lain)			
28.	Kesukaran untuk kekal di tempat duduk (menggeliat di tempat duduk, kerap bangun dan bergerak)			
29.	Selalu berlari atau memanjat secara berlebihan dalam situasi yang tidak sesuai			

30.	Kesukaran untuk bermain dengan tenang dan senyap			
31.	Selalu “bergerak” atau sering bertindak seperti “tidak penat”			
32.	Selalu bercakap secara berlebihan/luar dari kebiasaan			
33.	Selalu menjawab soalan sebelum soalan selesai dikemukakan			
34.	Kesukaran untuk menunggu giliran (dalam permainan, semasa makan dan lain-lain)			
35.	Selalu mencelah atau mengganggu orang lain (contoh, mencelah perbualan atau permainan)			
<p>Jika anda memilih ‘Kadangkala Berlaku’ atau ‘Berlaku’ untuk soalan di atas, adakah masalah dengan perhatian, tumpuan, terlalu aktif atau impulsif mengganggu fungsi harian anak anda?</p> <p>Tidak berkaitan Tidak sama sekali Sedikit Agak banyak Sangat banyak</p>				
Kepasifan/tidak aktif: ketidakaktifan atau kecenderungan anak untuk menjadi terlalu pasif				
36.	Kesukaran untuk memulakan tugas/aktiviti			
37.	Kesukaran untuk menyelesaikan tugas/aktiviti, tidak menyiapkan tugas/aktiviti seperti ahli kumpulan yang lain			
38.	Selalu “berada dalam dunia sendiri” atau mengelamun			
39.	Nampak pergerakan perlahan, tidak bermaya atau kurang tenaga			
<p>Jika anda memilih ‘Kadangkala Berlaku’ atau ‘Berlaku’ untuk soalan di atas, adakah kepasifan atau tidak aktif mengganggu fungsi harian anak anda?</p> <p>Tidak berkaitan Tidak sama sekali Sedikit Agak banyak Sangat banyak</p>				
Merancang/mengatur; keupayaan anak untuk merancang atau mengatur aktiviti				
40.	Kesukaran memahami akibat daripada tindakan sendiri (contoh, memanjat di tempat berbahaya, mematuhi aturan lalu lintas)			
41.	Kesukaran untuk merancang dan membuat persediaan untuk tugas (contoh, mengumpul peralatan yang diperlukan untuk keluar atau ke sekolah)			
42.	Kesukaran untuk menyelesaikan tugas berurutan (contoh, kanak-kanak kecil: memakai pakaian pada waktu pagi tanpa peringatan berterusan; kanak-kanak yang lebih besar: menyiapkan kerja rumah tanpa peringatan berterusan)			

Jika anda memilih 'Kadangkala Berlaku' atau 'Berlaku' untuk soalan di atas, adakah masalah untuk merancang/mengatur mengganggu fungsi harian anak anda?

Tidak berkaitan
 Tidak sama sekali
 Sedikit
 Agak banyak
 Sangat banyak

Persepsi terhadap ruang dan arah; persepsi anak terhadap ruang dan arah dalam dunia fizikal:

43.	Kesukaran untuk mencari arah (walaupun di tempat yang mereka selalu berada)			
44.	Mudah terganggu dengan perbezaan ketinggian (walaupun sedikit) seperti ketika menaiki tangga dan sebagainya			
45.	Kesukaran menganggarkan jarak atau saiz			
46.	Kesukaran untuk memahami orientasi dan arah spatial (dimensi) (kanak-kanak kecil memusingkan pakaian bahagian belakang ke hadapan, kanak-kanak yang lebih besar keliru dengan huruf seperti b, p, d, atau nombor seperti 6, 9)			
47.	Mudah terlanggar orang lain apabila berada di tempat sempit			

Konsep masa; Keupayaan anak untuk memahami konsep masa:

48.	Pemahaman tentang konsep masa yang lemah, contohnya, tidak mempunyai kemahiran untuk mengagak tentang berapa lama "lima minit" atau "satu jam" diambil atau tidak pasti tentang berapa lama sesuatu berlaku			
49.	Mempunyai idea yang samar-samar tentang waktu, sama ada pagi atau petang, sama ada masa untuk ke sekolah atau tidak			
50.	Berulang kali bertanya tentang tempoh masa sesuatu akan berlaku, contohnya, berapa lama lagi untuk keluar atau untuk ke sekolah			
51.	Boleh membaca jam mekanikal tetapi tidak memahami konsep masa yang sebenar			

Persepsi terhadap badan sendiri; persepsi anak terhadap tubuhnya sendiri dan tanggapan deria:

52.	Tidak tahu sama ada pakaian muat atau tidak, tidak membetulkan stokin atau seluar yang melurut ke bawah			
53.	Persepsi yang lemah dan terlampau terhadap sejuk, sakit dan lain-lain			
54.	Kurang peka terhadap badan sendiri (tidak pasti saiz badan sendiri jika dibandingkan dengan persekitaran, contoh, terlanggar atau terjatuh ke atas sesuatu walaupun tanpa niat untuk berbuat demikian)			
55.	Terlalu sensitif terhadap sentuhan (merasa jengkel dengan pakaian yang ketat, menganggap sentuhan lembut sebagai kasar, dan lain-lain)			
56.	Kesukaran untuk meniru pergerakan orang lain			

Persepsi terhadap bentuk visual dan rajah; Keupayaan anak untuk menilai bentuk dan rajah:

57.	Cenderung untuk salah tafsir gambar; contoh, mungkin menganggap gambar telur goreng sebagai gambar bunga			
58.	Kesukaran untuk mengenal pasti perbezaan yang tidak terlalu ketara dalam bentuk, rajah, perkataan dan corak yang seakan sama			
59.	Kesukaran untuk melukis gambar seperti gambar kereta, rumah dan lain-lain (berbanding dengan kanak-kanak sebaya)			
60.	Kesukaran untuk susun suai gambar			

Jika anda memilih 'Kadangkala Berlaku' atau 'Berlaku' untuk soalan di atas, adakah masalah dengan persepsi terhadap ruang dan arah, masa, badan sendiri, atau bentuk dan rajah mengganggu fungsi harian anak anda?

Tidak berkaitan
 Tidak sama sekali
 Sedikit
 Agak banyak
 Sangat banyak

Memori; Keupayaan anak untuk mengingat fakta atau apa yang dialami

61.	Kesukaran untuk mengingat maklumat berkaitan data peribadi, seperti tarikh lahir, alamat rumah dan sebagainya			
62.	Kesukaran untuk mengingat nama orang lain (contoh, nama guru, rakan sekolah)			
63.	Kesukaran untuk mengingat nama hari dalam seminggu, bulan dan musim			
64.	Kesukaran untuk mengingat fakta bukan peribadi yang dipelajari di sekolah (contoh, peristiwa bersejarah, formula kimia dan lain-lain)			
65.	Kesukaran untuk mengingat perkara yang baru berlaku, seperti individu yang baru menelefon atau, apa-apa yang dimakan beberapa jam yang lalu dan lain-lain			
66.	Kesukaran untuk mengingat peristiwa yang berlaku suatu ketika dahulu, seperti peristiwa yang berlaku ketika melancong, hadiah hari jadi yang diperoleh dan lain-lain			
67.	Kesukaran untuk mengingat lokasi/tempat dia meletakkan sesuatu			
68.	Kesukaran untuk mengingati janji temu dengan rakan sebaya atau apa kerja rumah yang ada			
69.	Kesukaran untuk mempelajari rima, lagu, jadual pendaraban dan lain-lain dengan baik			
70.	Kesukaran untuk mengingati arahan yang panjang atau arahan pelbagai langkah			
71.	Kesukaran untuk menguasai kemahiran baharu, seperti peraturan permainan baharu			

Jika anda memilih 'Kadangkala Berlaku' atau 'Berlaku' untuk soalan di atas, adakah masalah dengan memori/ingatan mengganggu fungsi harian anak anda?

Tidak berkaitan

Tidak sama sekali Sedikit Agak banyak Sangat banyak				
Pemahaman bahasa pertuturan; keupayaan anak untuk memahami bahasa dan pertuturan:				
72.	Kesukaran untuk memahami penerangan dan arahan			
73.	Kesukaran untuk mengikuti cerita yang dibaca dengan nada/suara yang kuat			
74.	Kesukaran untuk memahami apa-apa diperkatakan oleh orang lain (sering berkata "apa?" "apa maksud awak?")			
75.	Kesukaran untuk memahami konsep abstrak seperti "lusa", "dalam turutan yang betul"			
76.	Cenderung untuk salah tafsir tentang sesuatu perkara yang diberitahu			
Bahasa ekspresif; keupayaan anak menghasilkan bahasa bahasa dan menyebut perkataan:				
77.	Bunyi pertuturan yang tidak pasti dan cenderung untuk salah menyebut perkataan			
78.	Kesukaran untuk mempelajari nama-nama warna, orang, huruf dan lain-lain			
79.	Kesukaran untuk mencari perkataan atau menjelaskan kepada orang lain, berkata: "itu, itu, itu... atau emm, emm, emm..."			
80.	Cenderung untuk mengingati perkataan dengan salah, menyebut "padang" dan bukannya "pandan", merujuk kepada "tetikus" bukannya "penunjuk" dan lain-lain			
81.	Kesukaran menjelaskan apa-apa yang dia mahu			
82.	Kesukaran untuk bercakap dengan lancar tanpa tersekat-sekat			
83.	Kesukaran untuk mengekspresikan dirinya dalam bentuk ayat lengkap, dalam ayat yang betul dari segi tatabahasa, atau melakar maksud perkataan			
84.	Menyebut bunyi tertentu secara tidak betul (pelat menyebut 's', kesukaran menyebut bunyi "r", suara sengau dan lain-lain)			
85.	Kesukaran untuk menyebut perkataan yang kompleks seperti "elektrik", "infrastruktur" dan sebagainya			
86.	Mempunyai suara yang serak			
87.	Gagap			
88.	Bercakap dengan kadar yang sangat pantas sehingga sukar untuk orang lain memahami apa-apa yang dia katakan			
89.	Mempunyai pertuturan yang bercelaru/maksud yang tidak jelas			
Komunikasi lisan; keupayaan anak untuk menggunakan bahasa dan kemahiran untuk berkomunikasi dengan orang lain:				
90.	Kesukaran untuk menceritakan pengalaman atau situasi agar difahami oleh pendengar (contoh, peristiwa yang berlaku pada siang hari atau semasa cuti sekolah)			

91.	Kesukaran untuk mengekalkan topik perbualan apabila menceritakan sesuatu perkara kepada orang lain			
92.	Kesukaran untuk mengambil bahagian dalam perbualan, contoh, masalah beralih daripada mendengar kepada bercakap			

Jika anda memilih 'Kadangkala Berlaku' atau 'Berlaku' untuk soalan di atas, adakah masalah dengan pemahaman bahasa, penggunaan bahasa, atau komunikasi lisan mengganggu fungsi harian anak anda?

Tidak berkaitan
 Tidak sama sekali
 Sedikit
 Agak banyak
 Sangat banyak

Pemerolehan kemahiran akademik; jika anak anda berumur di bawah 8 tahun, sila ke item 122
 Soalan yang berkaitan dengan pembelajaran anak boleh menjadi sukar bagi ibu bapa tanpa maklumat daripada guru. Namun begitu, sila cuba jawab soalan berikut berdasarkan apa yang anda tahu atau apa yang anda dengar daripada guru anak anda.

Membaca, menulis, mengira (hanya kanak-kanak berumur 8 tahun ke atas):

93.	Memperoleh kemahiran membaca adalah lebih sukar daripada yang dijangkakan jika mengambil kira keupayaannya mempelajari perkara lain			
94.	Mengalami kesukaran untuk memahami apa-apa yang dibacanya			
95.	Kesukaran untuk membaca dengan suara kuat pada kelajuan biasa (membaca terlalu perlahan, terlalu cepat, atau gagal membaca dengan lancar)			
96.	Tidak suka membaca (contoh, mengelak membaca buku)			
97.	Membuat tekaan semasa membaca			
98.	Kesukaran mengeja			
99.	Mengalami kesukaran untuk membentuk huruf dan sukar menulis dengan kemas			
100.	Kesukaran untuk mempersiapkan diri dalam aktiviti penulisan			
101.	Kesukaran untuk memperoleh kemahiran asas matematik (penambahan, penolakan; iaitu tambah, tolak)			
102.	Kesukaran untuk menyelesaikan masalah matematik yang diberikan dalam bentuk bertulis			
103.	Kesukaran untuk mempelajari dan mengaplikasikan pelbagai peraturan matematik			
104.	Kesukaran untuk mempelajari dan menggunakan jadual pendaraban			
105.	Kesukaran untuk mencongak			

Mempelajari perkara baharu dan mengaplikasikan pengetahuan di sekolah (hanya kanak-kanak berumur 8 tahun ke atas):

106.	Kesukaran untuk memahami arahan lisan			
107.	Kesukaran untuk memahami atau menggunakan istilah abstrak, contoh, istilah yang berkaitan dengan saiz, isipadu, arah dimensi			

108.	Kesukaran untuk mengambil bahagian dalam perbincangan dengan kanak-kanak lain			
109.	Kesukaran untuk mempelajari fakta atau memperoleh pengetahuan tentang dunia sekeliling.			
110.	Pengetahuan atau kemahiran yang luar biasa dalam sesuatu bidang			
111.	Pandai dalam perkara artistik/seni atau praktikal (bermain alat, melukis, kerja pembinaan)			
Penyelesaian masalah di sekolah dan pendekatan kepada situasi pembelajaran baharu (hanya kanak-kanak berumur 8 tahun ke atas):				
112.	Kesukaran untuk merancang dan mengatur aktiviti, (contoh, susunan perkara yang perlu dilakukan, berapa banyak masa yang diperlukan untuk menguruskan tugas tertentu)			
113.	Kesukaran untuk menukar rancangan atau strategi apabila diperlukan (contoh, apabila pendekatan awal gagal)			
114.	Kesukaran untuk memahami penjelasan dan mengikut arahan yang diberikan oleh orang dewasa			
115.	Kesukaran menyelesaikan tugas abstrak (iaitu, bergantung kepada bahan pembelajaran yang boleh dilihat atau disentuh)			
116.	Kesukaran untuk terus mencuba dan menyelesaikan tugas, sering meninggalkan tugas separuh siap			
117.	Tidak bermotivasi untuk membuat kerja sekolah atau situasi pembelajaran yang setanding			
118.	Pembelajaran adalah lambat dan sukar			
119.	Melakukan sesuatu dengan cepat, terburu-buru atau tergesa-gesa			
120.	Tidak boleh/tidak akan bertanggungjawab atas tindakan sendiri, perlukan banyak pengawasan			
121.	Sangat memerlukan sokongan, yakni ingin tahu sama ada dia beraksi dengan baik			
<p>Jika anda memilih 'Kadangkala Berlaku' atau 'Berlaku' untuk soalan di atas, adakah masalah akademik atau masalah pembelajaran mengganggu fungsi harian anak anda?</p> <p>Tidak berkaitan Tidak sama sekali Sedikit Agak banyak Sangat banyak</p>				
Kemahiran sosial; keupayaan anak untuk mengambil bahagian dalam persekitaran sosial dan berinteraksi dengan orang lain:				
122.	Tidak memahami isyarat sosial orang lain, contoh, ekspresi muka, gerak isyarat, nada suara atau bahasa badan			
123.	Kesukaran untuk memahami perasaan orang lain			
124.	Kesukaran untuk bertindak balas terhadap keperluan orang lain (contoh, tidak menolong orang yang terjatuh)			

125.	Kesukaran untuk menerangkan emosi secara lisan apabila berasa kesunyian, bosan dan lain-lain			
126.	Bercakap dengan suara yang mendatar atau pelik			
127.	Kesukaran untuk menyatakan emosi dan reaksi dengan gerak isyarat muka atau bahasa badan			
128.	Bersikap/bergaya seperti orang yang jauh lebih berusia (tak sesuai dengan umur)			
129.	Kesukaran untuk berkelakuan seperti yang diharapkan oleh rakan sebaya			
130.	Kesukaran untuk menyedari cara berkelakuan dalam situasi sosial yang berbeza, seperti ketika melawat saudara-mara bersama ibu bapa, ketika melawat rakan-rakan, berjumpa doktor, pergi ke pawagam, dan lain-lain			
131.	Dianggap berbeza, pelik, atau tidak normal oleh rakan sebaya			
132.	Secara tidak sengaja memalukan diri sendiri sehingga ibu bapa berasa malu atau rakan sebaya mula tertawa			
133.	Sering seperti kurang akal budi (<i>common sense</i>)			
134.	Kesukaran untuk memahami jenaka			
135.	Memberi komen tanpa berfikir yang tidak sesuai dengan keadaan semasa			
136.	Kesukaran untuk memahami peraturan atau larangan			
137.	Sering bergaduh dengan rakan sebaya			
138.	Kesukaran untuk memahami dan menghormati hak orang lain, sebagai contoh, situasi di mana kanak-kanak kecil perlu bantuan lebih berbanding yang lebih besar, dan memahami permintaan ibu bapa untuk bersendirian, mengambil atau menggunakan barang orang lain tanpa izin dan lain-lain			
139.	Kesukaran dalam aktiviti atau permainan berkumpulan atau berpasukan, mencipta peraturan baharu untuk kepentingan sendiri			
140.	Kesukaran berkawan			
141.	Jarang berinteraksi dengan rakan sebaya			
142.	Kesukaran untuk menyertai aktiviti berkumpulan			
143.	Tidak diterima oleh kanak-kanak lain untuk menyertai permainan mereka			
144.	Tidak memperdulikan sentuhan fizikal seperti pelukan			
145.	Mempunyai satu atau beberapa minat yang memerlukan masa yang agak lama untuk terbentuk dan menjejaskan hubungan dengan keluarga dan rakan-rakan			
146.	Mengulang atau terperangkap dalam tingkah laku atau aktiviti yang kelihatan tidak bermakna			
147.	Berasa sangat kecewa dengan perubahan kecil dalam rutin harian			
148.	Hubungan mata (<i>eye contact</i>) yang tidak normal atau tiada semasa bersemuka			

Jika anda memilih 'Kadangkala Berlaku' atau 'Berlaku' untuk soalan di atas, adakah masalah dengan kemahiran sosial mengganggu fungsi harian anak anda?

Tidak berkaitan
 Tidak sama sekali
 Sedikit
 Agak banyak
 Sangat banyak

Masalah emosi:

149.	Kurang keyakinan diri			
150.	Nampak seolah-olah tidak gembira, sedih, tertekan			
151.	Sering mengadu mengenai perasaan sunyi			
152.	Cuba untuk menyebabkan kecederaan diri sendiri atau bercakap tentangnya			
153.	Mempunyai kurang selera makan			
154.	Sering meluahkan perasaan tentang diri tidak berharga atau rendah diri berbanding kanak-kanak lain			
155.	Sering mengadu tentang sakit perut, sakit kepala, kesukaran bernafas atau gejala badan yang lain			
156.	Kelihatan tegang dan cemas atau mengadu tentang gugup/gemetar			
157.	Menjadi sangat cemas atau tidak gembira apabila meninggalkan rumah, contoh, semasa pergi ke sekolah			
158.	Lebih banyak masalah tidur berbanding kebanyakan kanak-kanak yang sebaya			
159.	Sering mengalami mimpi ngeri			
160.	Berjalan dalam tidur atau mengalami serangan gangguan tidur pada waktu malam apabila dia tidak dapat didekati atau ditenangkan			
161.	Sering hilang sabar			
162.	Sering bergaduh/berdebat dengan orang dewasa			
163.	Sering enggan mengikut arahan orang dewasa			
164.	Sering mengusik orang lain dengan melakukan perkara yang dianggap sebagai provokasi			
165.	Sering menyalahkan orang lain atas kesilapan atau tindakan buruk diri sendiri			
166.	Mudah tersinggung, atau terganggu dengan orang lain			
167.	Sering terlibat dalam pergaduhan			
168.	Kejam terhadap haiwan			
169.	Berbohong dan menipu			
170.	Mencuri barang di rumah			

171.	Sering memusnahkan barang kepunyaan ahli keluarga yang lain atau kanak-kanak lain			
172.	Mengalami episod tahap aktiviti yang sangat tinggi dan idea yang banyak, yang mana episod ini berulang selama beberapa hari			
173.	Berulang kali berasa tidak sihat, lemah badan, tidak bertenaga atau mudah marah yang jelas kelihatan			
Tindakan atau pemikiran obsesif; Tindakan atau pemikiran yang tidak dapat dikawal				
174.	Mengulangi beberapa aktiviti secara berterusan atau mempunyai tabiat yang sangat sukar untuk diubah			
175.	Mempunyai idea yang obsesif/tetap			
176.	Mempunyai pergerakan yang tidak dapat dikawal, pergerakan tiba-tiba, kekejangan atau kerutan muka			
177.	Mengulangi pergerakan yang tidak bermakna, seperti menggelengkan kepala, menyentak badan dan menggendang jari			
178.	Mengeluarkan bunyi yang tidak bermakna seperti berdehem, bersin, menelan, menyalak, menjerit dan lain-lain			
179.	Kesukaran mendiamkan diri, contoh, bersiul, berdengung, menggumam			
180.	Mengulang perkataan atau sebahagian perkataan tanpa maksud			
181.	Menggunakan perkataan atau bahasa kesat dengan cara yang berlebihan/melampau			
<p>Jika anda memilih 'Kadangkala Berlaku' atau 'Berlaku' untuk soalan di atas, adakah masalah emosi, tindakan atau pemikiran obsesif mengganggu fungsi harian anak anda?</p> <p>Tidak berkaitan Tidak sama sekali Sedikit Agak banyak Sangat banyak</p>				
Terangkan masalah anak anda yang paling anda risaukan:				
Terangkan kelebihan anak anda:				