Cross Cultural Adaptation of the 24-, 30-, 36- and 48-month Ages and Stages Questionnaire: Social-Emotional in Malaysia: A Preliminary Study

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ABSTRACT
The existence of an effective and practical early identification instrument is crucial in preparing for an early intervention service. With the early detection instrument, the early intervention service can be provided to children as early as possible.

Realizing the importance of the early detection instrument, researchers have taken proactive steps in adapting the early detection instrument that was widely used overseas. The early detection instrument that will be adapted is the Ages & Stages Questionnaire: Social-Emotional (ASQ:SE). The findings of this research indicate that the translation of ASQ:SE in terms of language and culture was appropriately usable in Malaysia. Other than that, the findings of this research also show that the items in the translated ASQ:SE is valid to measure the socio-emotional level of development of children. It is suggested that psychometric element to be carried for future research. The findings from this research may be further strengthening with the existence of psychometric test.

Keywords: screening; developmental instrument; social-emotional; ASQ:SE Malaysia; early identification

INTRODUCTION
The issue regarding mental health among children has gained reputable interest from the developing countries (Heo & Squires 2011). However, according to Squires & Bricker (2007), to define and understand the term mental health is not an easy and clear task. This is admitted by Fitzgerald dan Barton (2000) that stated that the mental health issue among children is very difficult to be defined as it involved the use of complicated concept. This is further agreed by Zeanah and Zeanah (2001), whereby she looked at children’s mental health to be a broad concept. However, Zeanah dan Zeanah (2001) defined children’s mental health to be ‘a condition whereby the social and emotional competency of a children can develop well in an inter-related context of biology, interaction and culture’.

The efficiency of children to control his feelings and their social relations will determine to their success when they are in a classroom, at home or going through their daily activities (Schultz & Richardson 2011; State, Kern & Starosta 2010). Goleman (1995) described the children that have good social and emotional competency to be an individual that is concerned with their emotional signal, a good listener, sensitive towards the state of other individuals around him and also able to acquire and understand other people’s perspective in a positive manner. Based on other research, the emotional intelligence and cognitive intelligence are two equally important aspects (Goleman 1995; Salovey & Mayer 1990). This is because both will affect the success of a child in the future.

Based on the report from the National Center for Children in Poverty (2009), it was estimated that 9.5% to 14.5% children of the age less than 5 years old experience social-emotional development problems. Other than that, the report also stated that it was estimated that 9% children receiving mental health service in the United States are children of the age less than 6 years old. In a research done at developing countries, it was discovered that the prevalence of children of the age less than 5 years old to have socio-emotional problems is 7% to 24% (Carter, Briggs-Gowan & Davis 2004).

In Malaysia, the findings from the research done by National Health and Morbidity Survey III (NHMS III) on 14, 156 discovered that 19.9% children of the age between 5 to 9 years old, 20.8% children of the age between 10 to 14 years old and 20.7% children of the age between 15 to 16 years old suffer from mental disturbance problems. Furthermore, the mental disturbance problems were higher among boys in comparison to girls (NHMS III 2006). The NHMS III research also indicate that the mental disturbance problems frequently occur among those who suffers from chronic illnesses such as asthm and individuals with disabilities (Ministry of Health Malaysia, 2006).

The NHMS III report suggested that the the group of children who are at risk of suffering mental disturbance to be detected earlier. This suggestion was in line with the recommendations of the researchers in early childhood education field and early education of children with special needs that stated that an accurate and proper early detection process is crucial to detect children at risk of experiencing socio-emotional development problems (Kucukuer et al. 2011; Squires, Bricker, Heo & Twombly 2001). The main objective of detecting children at risk of experiencing socio-emotional development problems is that an intervention service and suitable support activities may be planned and executed (Ministry of Health Malaysia,
The lack of robust and inexpensive early detection instrument that uses easy to understand language and can be used by all individual from various cultural backgrounds has been identified to be the main hindrance in detecting the socio-emotional development problems among children as young as infant stage (Hamilton 2006; Tsai 2006; Jang 2005; Squires et al. 2001; Skellem et al. 2000; Squires et al. 1998). Researchers from the United State and other countries have emphasize on the importance of the existence of a unified and appropriate early detection instrument to detect the problems of socio-emotional of children at the early stage (Sexton, Thompson, Perez, & Rheams 1990). According to other researchers, the use of an instrument that was not properly constructed and studied will result in erroneous result.

When the issue of the importance of early detection instrument of children’s socio-emotion gained the attention and widespread research in the United States, Denmark and Canada, (Bormann, Jevcik, Romski & Pae 2010; Kerstjen, Bos, Vergent, Burcher & Reijneveld 2009; Elbers, Macnab, McLeod & Gagnon 2008; Lyman, Njoroge & Willis 2007) only a few effort and attention had been given to the said matter in Malaysia (Nor Aidah et al 2009). Upon close examination, the attention was only on the emotional health among adults. However for children, this issue has not gained much attention and in fact an accurate, precise and effective early detection instrument of socio-emotional development for children of the age 5 years and below seemed to be non-existent. In Malaysia, the RQC instrument used in the NHMS research only can be used on children of the age of 5 to 16 years old only (NHMS III 2006).

One of the effective steps that can be taken to overcome the obstacle on the early detection process is to adopt the instrument that is proven valid and reliable from other countries to be implemented on children in Malaysia. Cross-cultural adaptation process of psychological behavior instruments has gained reputable attention worldwide (Hambleton, Merenda & Spielberger 2005). In fact, a guideline has been internationally constructed to ensure the adaptation to achieve linguistic equivalence, technical equivalence and cultural equivalence (Heo & Squires 2011). Therefore, this research will consider the practical steps in adapting the ASQ:SE instrument of early detection that has been proved its validity and reliability to be used on Malaysian parents. The cross-cultural adaptation process will be made based on the manual published by The Evaluation Center: Human Services Research Institute di United State.

The Ages and Stages Questionnaire: Social-Emotional (ASQ:SE)

Ages & Stages Questionnaires: Social-Emotional (ASQ:SE) (Squires & Bricker 1996, 1998) has been introduced by the Department of Early Intervention, Human Development Center at the Oregon University, USA. ASQ:SE is an early detection instrument that needs to be completed by the parents or the guardian. The main purpose of ASQ:SE is to detect the child that has socio-emotional problems to enable them undergoing a more specified assessment process. The ASQ:SE set of questionnaires comprises of eight series, differentiated based on the child’s age which are 6, 12, 18, 24, 30, 36, 48, and 60 months.

The items contained in the ASQ:SE was constructed based on the children’s socio-emotional development based on their age following these aspects; self-regulation skills, obedience, communication, adaptive, autonomy, influence and interaction with other people (Heo K. 1999; Squires et al. 2001; 2004). Other than that, questions on the worries of parents towards their child were included in the ASQ:SE. The items in ASQ:SE have gone through various stages of scrutiny by a panel of experts from various fields. 40 experts were involved in constructing and scrutinizing the ASQ:SE items (Squires et al. 2001). They are experts of these fields: special education, early childhood education, psychology, science and communication disorder, mental health, social welfare department and children protection agency (Heo K. 1999; Squires et al. 2001). A five years research had been done prior to publishing the ASQ:SE in 2001 (Squires et al. 2001).

The set of questionnaires in ASQ:SE only requires a short period of time to be completed. This is because the language used in constructing the items in ASQ:SE are short and concise. Usually, parents only spent about 10 to 20 minutes to complete the ASQ:SE questionnaires set. However, the time required varies with the understanding of the parents on the items raised. For parents who were illiterate, the filling of ASQ:SE may be made via interview (Heo K. 1999).

The items in ASQ:SE were divided into two types which are positive and negative items. Positive items referred to questions that are positive in nature, for example “Does your child like to be hugged?”. Meanwhile, negative items referred to questions that are negative in nature, for example “Is your child, crying, screaming, raging for a long period of time?”. Each questions were marked with the alphabet X, V and Z. 10 score is given to question marked with X, 5 score for question marked with V and 0 score for question marked with Z.

Therefore, the objective of this research is to:

1) To examine the language appropriateness of translated 24-, 30-, 36-, and 48 month ASQ:SE.
2) To examine the cultural appropriateness of translated 24-, 30-, 36-, and 48 month ASQ:SE.
3) To examine content validity of translated 24-, 30-, 36-, and 48 month ASQ:SE.

2006) to stimulate their socio-emotional development to a better level. This in turn can reduce the risk of the existence of secondary development problems among the children at risk (Heo & Squires 2011).

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PROCEDURE

There are six steps taken in the process of translating and adapting the instrument ASQ:SE 24 months, 30 months, 36 months and 48 months in Malaysia.

Step 1: Translating the Instrument
The researchers have translated the instrument in 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months into the Malay language because Malay language is the lingua franca and national language for Malaysian. The original language used in each series of ASQ:SE is English. Up until now, ASQ:SE has been translated and adapted into Spanish (Squires et al. 2001), Turkish (Kucuker, Kapci, & Uslu 2011) and Korean (Heo & Squires 2011). Translation was an important process in adapting an instrument for the use of a country. This is because, every country has different lingua franca and have individual understanding on the use of a certain word or phrase. The main purpose of translating is to avoid misunderstanding on the items in the instruments used. With a high understanding of the items in the instrument, the findings of the research may be more accurate and precise (Creswell 2005).

Step 2: Revision of Translation by Bilingual Committee
After the instruments ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months be translated into Malay language, a committee consisting of bilingual speakers is created. The purpose of the committee is to review the quality of translation made by the researchers. Should there be items identified as causing misunderstanding, different meaning or uncertainty, it should be corrected (amended) to avoid the occurrence of research errors (Chavez & Canino 2005; Berkanovic 1980). Three bilingual speaks using Malay language as their first language and English as their second language have been appointed to join the committee. All three panels of bilingual appointed have a Master of Education (TESL) and have the experience of more than 10 years teaching English. A meeting with all three panels was made to discuss and check the quality of translation made by the researchers. Before discussing on the translated instrument, both panels have been explained on the ASQ:SE instrument. Other than that, each panel was supplied with a Revised Translation Form and a Sample Form of ASQ:SE for reference purpose. All feedbacks, comments and suggestions on the corrections made by the panel have been recorded.

Step 3: Second Revision of Translation by Language Experts
After the bilingual committee has made corrections based on the suggestions, language experts have made the process of second revision. The process of second revision is very crucial, especially for countries that have citizens from different ethnic/race and practices various cultures (Bravo 2003; Geisinger 1994) such as Malaysia. The bilingual experts will make the final decision on the translation for each item (Chavez & Canino 2005) and thus verifying the quality of the translations made. There are two bilingual speakers using Malay Language as their first language and English as their second language appointed in this committee. Both appointed panels were lecturers from a public university, holder of Degree of Doctor of Philosophy (Malay Language) and Diploma in Translation, Bachelor's Degree (PBMP). A meeting with both panels was made. Before discussing on the translated instrument, both panels have been explained on the ASQ:SE instrument. Other than that, each panel was supplied with a Revised Translation Form and a Sample Form of ASQ:SE for reference purpose. All feedbacks, comments and suggestions on the corrections made by the panel have been recorded.

Step 4: Establishing a Focus Group to Discuss on the Issues of Cultural Compatibility and Validity of Translated Instruments
The main objective of establishing a focus group is to discuss on the issues of cultural compatibility and validity content of the translated instrument ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months. Four experts have been appointed to join the focus group to discuss issues on cultural compatibility and validity content of the instruments ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months that have been translated into Malay language. The experts that joined the focus group consist of two academic members (lecturers of early childhood education), a general medicine practitioner and a pediatrician. All experts appointed in this focus group were holders of Master's Degree in their respective fields. A meeting has been made to discuss and scrutinize the cultural appropriateness and validity of the translated instruments. A brief explanation on the ASQ:SE instrument has been made to the panel before the discussion. Other than that, each panel was supplied with a Revised Translation Form and a Sample Form of ASQ:SE for reference purpose. All feedbacks, comments and suggestions on the corrections made by the panel have been recorded.
Step 6: Retranslating

Next, the instruments for ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months that have been translated into Malay language will be given to a freelance translator for the purpose of retranslation. The freelance translator do not involve in the previous translation activities. For this purpose, a panel with the qualification of a Bachelor’s Degree (TESL) and Masters of Education (Preschool) has been appointed. Comparison between the items in the original version and the translated version of the instruments for ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months were made after the panels have given the copies. After that, the comparison process between the original instruments and the translated instruments were made. According to Chaves and Canino (2005), if there is any item identified not retaining the original meaning of the original version, then it needs to be retranslated and have to go through Step 1 to Step 7 again. Based on the researchers, this process might demand a much higher cost and time-consuming, but it is very crucial in ensuring that the translated instruments to retain the same meaning as the original instruments (Weidmer, Brown, & Garcia 1999; Brislin 1986).

RESULTS

Language Appropriateness of translated language ASQ:SE 24-, 30-, 36- and 48 months

Overall, the translated ASQ:SE 24 months contained 29 items of questions. The bilingual committee has identified 13 items (44.83%) that have understandable meaning but have terminology and grammar errors. Meanwhile, 16 items (55.17%) were identified to be translated well, whereby the meanings were understandable and the sentences were good. The bilingual committee suggested that the translation for ‘cordial’ for seem too friendly to be changed to ‘appear to be friendlier’, the translation for ‘relaxed’ to be changed to ‘calm and comfortable’, the translation for ‘greet and say hello’ to be changed to ‘greet the translation for ‘keep calm’ for calm down to be changed to ‘calm again’ and the translation for ‘spine’ for his back to be changed to ‘his body’.

The language experts have identified 11 items (37.93%) to have good quality of translation and use the correct and proper Malay language. Based on the discussions made with the language experts, several altercations have been made to 18 other items (62.07%). Among the altercations made were the phrase ‘look ahead’ to be changed to ‘look’, the word ‘friendly’ to be changed to ‘too friendly’, the word ‘tense’ to be changed to ‘harden’, the word ‘follow’ to be changed to ‘comply’ and the word ‘around’ to be changed to ‘together’.

Overall, the translated ASQ:SE 30 months contained 32 items of questions. The bilingual committee has identified 15 items (46.88%) that have understandable meaning but have terminology and grammar errors. Meanwhile, 17 items (53.13%) were identified to be translated well, whereby the meanings were understandable and the sentences were good. The bilingual committee suggested that the translation for ‘hang’ for cling to be changed to ‘hold on’, the translation for ‘expect to be changed to ‘supposedly’, the translation for ‘in the period of’ for for at least to be changed to ‘for at least’, the translation for ‘any problems encountered’ for another problem to be changed to ‘other eating habits’ and the translation for ‘anything’ for anything to be changed to ‘something’.

The language experts have identified 8 items (25.00%) to have good quality of translation and use the correct and proper Malay language. The items were items number 5, 6, 11, 13, 24, 28, 31 and 32. Based on the discussions made with Panel D and Panel E, several altercations have been made to 26 other items (81.25%). Among the altercations made were the phrase ‘fun activities during a long period of time’ to be changed to ‘fun activities’, the sentence ‘your child is more active’ to be changed ‘your child appear to be more active’, the phrase ‘stuffing the food’ to be changed to ‘to stuff the food into the mouth’ and the phrase ‘your child is happy’ to be changed to ‘you and your child are happy’.

Overall, the translated ASQ:SE 36 month contained 34 items of questions. The bilingual committee has identified 19 items (55.88%) that have understandable meaning but have terminology and grammar errors. Meanwhile, 15 items (44.12%) were identified to be translated well, whereby the meanings were understandable and the sentences were good. The bilingual committee suggested that the translation for ‘cordial’ for seem too friendly to be changed to ‘appear to be friendlier’, the translation for ‘relaxed’ to be changed to ‘calm and comfortable’, the translation for ‘greet and say hello’ to be changed to ‘greet’ the translation for ‘keep calm’ for calm down to be changed to ‘calm again’ and the translation for ‘spine’ for his back to be changed to ‘his body’.

The language experts have identified 13 items (38.24%) to have good quality of translation and use the correct and proper Malay language. Based on the discussions made with the language experts, several altercations have been made to 21 other items (61.76%). Among the altercations made were the word ‘change’ to be changed with ‘moved’, the phrase ‘minimal difficulties’ to be changed to ‘with ease’, the phrase ‘from playtime to lunch’ to be changed to ‘from playing activities to eating’ and the phrase ‘at least’ to be changed to ‘period’.

Overall, the translated ASQ:SE 48 months contained 36 items of questions. The bilingual committee has identified 16 items (44.44%) that have understandable meaning but have terminology and grammar errors. Meanwhile, 20 items (55.56%) were identified to be translated well, whereby the meanings were understandable and the sentences were good. The bilingual committee suggested that the translation for ‘within the period of’ for for at least to be changed to ‘for at least’, the translation for ‘shaking’ for rocking to be changed to ‘rocking’, the translation for ‘waving’ for flapping to be
changed to ‘flapped’, the translation for ‘spinning around’ for spinning to be changed to ‘spinning’ and the translation for ‘whatever’ for anything to be changed to ‘something’.

The language experts have identified 12 items (33.33%) to have good quality of translation and use the correct and proper Malay language. Based on the discussions made with the language experts, several alterations have been made to 24 other items (66.67%). Among the alterations made were the word ‘calm’ to be changed to the phrase ‘keep calm’, the word ‘action’ to be changed with the word ‘behavior’, the phrase ‘remained dry’ to be changed with the phrase ‘do not pee in the pants’, the phrase ‘minimal difficulties’ to be changed to ‘with ease’, the phrase ‘from playtime to lunch’ to be changed to ‘from playing activities to eating’.

The compatibility of translated culture for ASQ:SE 24-, 30-, 36- and 48 months
Based on the discussions made, all four panels from the focus group agree that the translated instruments for ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months do not have a culture boundary and the items included are related to the children’s development only. Therefore, all four panels stated that the translated instruments for ASQ:SE were suitable to be used in Malaysia and the items in it were valid to measure the socio-emotional development of children.

The content validity of the translated ASQ:SE 24-, 30-, 36- and 48 months
Based on the discussions made, all focus group unanimously stated that all items contained in the translated instruments for ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months were basically related to the children’s development only. Other than that, the panels also mentioned that the items in the translated instruments for ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months were valid to measure the socio-emotional development of children whereby the items included were valid to measure the self-regulation skills, obedience, communication, adaptive, autonomy, influence and interaction with other people.

DISCUSSION
The translation process took a very long time, involving 5 experts. Overall, no major difficulty was faced during the translation process. The bilingual committee and the panel of experts appointed have a very high understanding on the items in the ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months. This is due to the fact that the English language used in the instruments for ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months are simple and concise. However, the researchers were also involved in the discussions to ensure the actual meaning of the items were undistorted and still relevant to the children’s development.

The researchers have proven that culture do play a major role in influencing the belief and practise of a family. This factor directly affects the children’s development. By referring to the Ecosystem theory by Bronfenbrenner, it is undeniable that culture is a large variable that affects the children’s development. Nonetheless, in this research, all four appointed panels unanimously agree that the translated instruments for ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months were suitable with the Malaysian’s culture. However, Panel C expressed his opinion regarding the item “does your child explore new places, such as a park or a friend’s home?” in the translated instruments for ASQ:SE 48 months. According to Panel C, the Malay community usually trained their child to remain still and quiet when they are in other people’s home or at public places. Panel C also mentioned that by looking at the aspect of the children’s development, the exploring the new places activities is something good and appropriate with the children’s nature whose indeed have a keen interest and curiosity. However, all panels unanimously agree to use this item.

The process to determine the content validity of the translation for ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months do not went smoothly. All four appointed panels unanimously stated that the items in the translated instruments for ASQ:SE 24 months, ASQ:SE 30 months, ASQ:SE 36 months and ASQ:SE 48 months were valid to determine the socio-emotional development of children based on the aspects of self-regulation skills, obedience, communication, adaptive, autonomy, influence and interaction with other people.

LIMITATION AND FUTURE RESEARCH
The research is a preliminary research that only involves the process of translation and adaptation. If there is any researcher interested in continuing the research on ASQ:SE in the future, it is advisable that further study on psychometric properties to be carried out. With the study on psychometric properties, scientific evidence with regards to the usability of ASQ:SE as a filtering instrument may be strengthen. Other than that, during the data collection process (pre-testing) for psychometric properties, it is advisable that the respondents/data gathered to be consisting or representing each ethnic and race in Malaysia. This is because Malaysia is a multicultural country.

Furthermore, the analysis using the latest statistic software such as Racsh and Item Response Theory (IRT) are recommended. Up until now, the use of IRT is seldomly used due to lack of experts knowing how to use it. There are also
researchers who mentioned that the findings using IRT is very accurate and undisputable. Therefore, with the analysis and use of the latest software, the evidence of the use of ASQ:SE is strengthen.

The researchers also suggested to adapt four more ASQ:SE series. With the adaptation of each ASQ:SE series, the instruments may be used not only as a filtering instrument but also as a monitoring instrument that can help the parents and guardians to monitor their children’s development to ensure that their development are at a good level.

CONCLUSION

Early detection is the first step in preparing the early intervention service. This will lessen the risk of secondary disabilities. With early detection, we can help the children to lead a better and prosperous life. It is hoped that a service of early intervention instrument can be channeled to the children at risk and children with special needs as soon as possible.

REFERENCES


