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Supporting Educators to Identify Children's Symptomatic Behaviours Indicating Developmental Delays with the Development of Symptomatic Behaviour Screening Tool (SymBest).

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Abstract : The primary focus of this research is to develop a web app screening tool for early childhood educators to identify children with developmental delays through behavioural behaviours. Symptomatic Behaviour Screening Tool (SymBest) is a behaviour difficulties screening tool for early childhood educators to screen and identify symptomatic behaviours among children aged 3 to 4 years old in the ECE center. The development of SymBest is based on the theory of maturation and the theory of cognitive development along with developmentally appropriate framework (DAP). Fuzzy Delphi analysis was conducted with 18 participants from diverse backgrounds of clinical and education to gain the expert consensus on the suitability of the constructs and items representing SymBest. The findings showed that the experts have a fair degree of agreement on the constructs and the items suggested to form SymBest. It is a fully featured web app with several functions like instant scoring upon, scores interpretations, overall interpretation, constructs and items in dual languages (English language and Bahasa Melayu) and saving the report in the PDF file. SymBest is also optimised for mobile and personal computer users with Andriod, IOS and PC operating system.

Keywords: Symptomatic Behaviours, Behavioural Symtoms, Fuzzy Delphi & Nominal Group Technique

INTRODUCTION

Due to awareness about the increasing number of children that are identified to be at-risk of having developmental delays, parents are choosing to send their young children for early childhood education. They assume by sending children to school, they can mitigate visible symptoms of delays. Early intervention through quality preschools programs has shown to be effective in minimising the gap found in education, encourage socialisation, prepare independency and allow success throughout the educational process of the child (Kucukturan & Altun, 2017). Hence this has increased the number of parents seeking early childhood education for their children aside from work-related reasons. Educators have the most opportunities to observe and identify children's behaviour and emotional difficulties in the classroom in the context of a comparison between children (Balaj, Albu, Porumb, & Miclea, 2011). Moreover, nurseries and preschools are some the preliminary places where a large number of children may be assessed to determine whether they are on track in terms of physical, cognitive, social and emotional development (DiStefano, Greer, Kamphaus, & Brown, 2015). In order to assess children's progress or lacking, the understanding of milestones for different stages of development is critically important. Assessment requires the initiative to understand children and their development. Assessment is only vital when it reaches the whole child developmental dimensions that are physical, language, cognitive, social and emotional and creativity (Morrison, 2018).

Central to the entire discipline of early identification is assessment practice, which is an increasingly essential component in early childhood education. In this 21st century of educational practices, efforts are taken by the school system to recognise the strengths and weaknesses of children. These efforts are mainly in forms of assessments and evaluations within the early childhood education structure itself. According to National Early Childhood Education, position statement on code of ethical conduct and statement of commitment, educators and school system are encouraged to use assessment instruments and strategies that are appropriate for the children to be assessed and to use the assessment outcome to support children's development and to identify children who may need additional services (National Association for the Education of Young Children, 2011). Identifying developmental delays in children the soonest possible may mitigate the risk of developing behaviour disorders or associated developmental disorders. This is because behavioural problems in young children are triggered by their developmental delays that are unattended. American Academy of Pediatrics suggests that children can be screened for developmental delays as early as in 9-month visit if any concern arises (American Academy of Pediatrics, 2006).

Children at risk of developmental delays pose behaviour problems that interfere with their learning and social implications. Behavioural problems that emerge during early childhood tends to persist in later years. If children don't receive support from their family or teachers when they encounter difficulties or express inappropriate attitudes, existing behaviour problems may escalate(Yumus & Bayhan, 2016). The age range of 1 to 4 , are the crucial early years for behaviour issues seen among young children (Campbell, 1995). Based on the given points, this is the time interval where the early identification and early intervention matters most. Externalising behaviours like defiance, tantrums, and anti-social behaviour are the types of behaviours that are often challenging for educators to manage. Educators feel helpless as they could not predict what the underlying reasons are for a child to pose challenging behaviours (O'Neill, Albin, Storey, Horner, & Spraque, 2014). Mainstream preschool educators are more liable to the lack of ability in identifying challenging behaviours because they do not receive any form of training that caters to children at risk of developmental delays (Johansen, Little, & Akin-Little, 2011). To identify and manage behaviour problems in the classroom, educators need support from related organisations in terms of availability and accessibility to behaviour support (Katherine M. Zinsser, Christensen, & Torres, 2016). Identifying children at risk of developing behavioural problems can help educators and schools to plan for interventions before behaviour problems become entrenched (Davis, Young, Hardman, & Winters, 2011). Using screening tools may enhance the detection of young children at risk of developing behaviour problems. The screening process for early identification should be efficient, practical and effective.

Nonetheless, in Malaysia, assessment within the school system is formative and authentic to assess children for academic excellence. Assessments in preschools are more towards identifying children with difficulties in literacy and numeracy, rarely focusing on developmental delays. On the other hand, Permata curriculum, which is serving educational programs for children from birth to 4 years of age is suggesting a conceptual curriculum model emphasising on the developmental domains for optimal growth. Assessment based on the developmental domains is also a part of Permata Curriculum. Educators are empowered with a brief dichotomous developmental checklist that is in accordance to the age range. During the Permata training session, educators are exposed to the field of special needs and preliminary stage of early identification. Here and now, there is a lack of screening tools for early childhood programs in Malaysia, especially in the government aided child care centres. This minimise the capability to accurately identify children at risk of emotional and behavioural disorders. It is vital for schools and educators to utilise early identification methods through a comprehensive and user-friendly screening tool. Provisions have been established for identifying students with developmental delays and reading inabilities. Thus, similar provisions should be implemented in addressing the needs of students at-risk of emotional and behaviour disorders (Edwards, 2009). Explaining children's behaviour in a reliable way to parents, therapist, interventionist and other related personnel, supports research and evidence-based interventions. Referral of children for medical diagnosis or special educational programs needs robust evidence-based assessment from educators and schools to support the suggestion. Screening procedures are also a form of behaviour support that should be available to ECE educators. To bridge the existing gap, this study focused on developing a screening tool for ECE educators to identify symptomatic behaviours among young children in mainstream early childhood education centres in Malaysia. The screening tool will only be applicable to children aged 3 to 4years old.

LITERATURE REVIEW

I. Behaviour Problems in Early Childhood.

Behaviour Problems refers to any behaviour viewed as atypical, odd or abnormal (Rita & Israel C. Allen,2006) that interferes with a child's cognitive, social, or emotional development. It is found inappropriate because it is harmful to a child, his peers or adults around them (Kaiser & Rasminsky, 2009). Behaviour problems referred to as challenging behaviours is one of the core features of children at risk of developing special needs. Behaviour which is inappropriate to the situation, repetitive and not age-appropriate some early alarm for parents and teachers of young children. In 2014, The US Census Bureau estimated a population of approximately 1.8 billion of youth from 5 to 19 years around the world (Child Mind Institute, 2015). Similarly, there was a community study conducted to estimate the prevalence of children and adolescents with mental and emotional disorders from 27 countries and every world region. The meta-analysis study indicated a pooled estimation of 13.4% (241million) children and adolescents affected by any mental disorders. The most common group of mental disorders are anxiety disorders, affecting 117 million; disruptive behaviour disorder, affecting 113 million; ADHD, affecting 63 million; and depressive disorders, affecting 47 million (Polanczyk, Salum, Sugaya, Caye, & Rohde 2015). However, what is considered disordered and what is typical behaviour among young children is still being a concern of professionals of several disciplines. Mostly teachers and parents of young children always in a dilemma to determine which is a behaviour problem and which is typical behaviour. To make oneself clear on this, there must be a clear cut criterion to determine to avoid assumptions. Developmental norms frequently are used to decide whether a particular child behaviour is at risk or not (Donna and Clifford 2003, pg 11).

Some children are born with a particular predilection toward disruptive behaviour specifically. Such children may have inherited vulnerability toward thought disorders, psychotic behaviour, and intellectual delay, as well as attention deficits, impulsivity, and irritability. Other children appear to manifest difficult temperaments that bring them into conflict with their caregivers very early in their development. " Temperament" here refers to children's activity level, general attention span, emotionality and irritability, sociability, response to stimulation , and habit regularity (Barkley, 1997). One of the relating cause ruled out is maternal mental disorder increases the likelihood of behaviour problems among preschool children, even after adjustment for important social and interaction factors (dos Santos, Queiros, Barreto, & dos Santos 2016). Another study as one of pioneer research on behaviour problems among young children also supports that quality of parenting associated with behaviour problems among young children. The study strongly indicates that ongoing problems in the family are one of the causes of problematic behaviours exhibits by children in school (Campbell 1995).

The cause of behaviour problem in young children can fall into two broad categories, biological and environmental. Anything that affects the child from conception to birth is biological includes, genes, gender, temperament, complications of pregnancy and birth and problems with brain function. Whereas any influence on the child after the birth, whether directly or indirectly is environmental factors like parenting style, peers, school, poverty, exposure to violence, media and understanding risk. (Kaiser & Rasminsky, 2009). Nevertheless, both factors are interdependent reasons for the behaviour to be challenging in young children. It is the interconnectivity between nature and nurture. The idea reflected by John Locke defining human mind as 'tabula rasa', born with a mind of a clean slate and that the events and experience in life mould them to be what they are to be. There is no one mechanism to point out for the cause of behavioural problems among young children. A recent study conducted in Russia has found the causes and driving forces of the sign of behavioural problems among young children. The study indicates that poor parenting, lack of socially acceptable behaviour, emotional instability and family history of various health issues are some of the roots of the leading cause to behaviour problems happening in the early childhood classroom (Kostyunina, Kazaeva, & Karimova, 2016).

If a child is born with some congenital disorders that are affecting their functionality due to behaviour problems, thus that behaviour can be conditioned to be an appropriate behaviour with proper intervention as early as possible. This is why it is so crucial for ECE educators to embrace early identification and screening children so that they can recognise the behaviours to be symptomatic to delays. As ECE centres are the second natural environment children are fit to besides the home, ECE educators have many timely opportunities to spot some of the symptomatic behaviours emerged in children within the classroom hours.

II. Educators perceptions of managing children's behaviour problems in Early Childhood Education Centres.

Behaviour problems related to emotional disturbance pose by young children in the early childhood programs classroom is to be found very disruptive during the teaching and learning sessions. Some behaviours are so defiant that early childhood educators are failing to predict the cause of it. Behaviour problems are also associated with social and emotional disturbance. Some of the social and emotional disturbance defined under the Individuals with Disabilities Education Act (IDEA) of 1977, relevant to behaviour problems which persist over a long time of period that affects a students' educational performance are as following (Lerner, Lowenthal, & Egan, 2003).

a. An inability to build or maintain satisfactory interpersonal relationships with peers and teacher;
b. Inappropriate types of behaviour or feelings under normal circumstances;
c. A general pervasive mood of unhappiness or depression; and
d. A tendency to develop physical symptoms or fears associated with personal or school problems.

Emotional and behaviour disorders, although not all are coined and gets aggravated by the child's social environment. Environmental circumstances may unintentionally develop conditions that cause and support undesirable and inappropriate behaviours. Whereas, some undoubtedly due to some sensory issues experienced by the child at the point the behaviour arises. A rapid developmental change occurring in young children from toddlers to childhood years causes the potential for children to develop behaviour problems that interrupt with the classroom instructions. While some behaviour problems are observed to fade as the child grows, there is a large number of children who may suffer from persistent behaviour conditions, and it is under-recognised (Poulou, 2015). The cause of children exhibit behaviour problems in the classroom remains as a query as there is no one definite under relying on reasons for the occur.

Educators are the main person directly connected to the children in the classroom environment. Commonly, educators make a referral for special education services when children continue to have issues like learning problems, defiant, inappropriate physical behaviours, aggressive behaviours and attention and focus related behaviours (Briesch, Ferguson, Volpe, & Briesch, 2013). The presence of children or students with behavioural problems is found to affect the behaviour of teachers negatively in the classroom (Erbas, Turan, Aslan, & Dunlap, 2010). In the Salamanca Statement (UNESCO, 1994), implementation of differentiated instructions to meet a variety of educational needs of children was strengthened for the development of inclusive education. On this note, educators are expected to adapt and make educational provision inclusive instead of referring students with special needs to a special school. By thoroughly engaging students with behavioural problems in the academic task, the disruptive behaviours in the classroom are expected to reduce. To have a meaningful classroom engagement educators can employ several techniques like placing students with behavioural problems near to the teacher, preparing academic task relevant to students ability and acknowledge students desired behaviours (Yildiz, 2015). However, many mainstream teachers are struggling to meet the range of student's educational needs, which they find very problematic (Bruggink, Goei, & Koot, 2013). Given that research indicates that managing classroom behaviour is their most challenging role of teachers alongside with lack of formal training and ongoing support (Johansen et al., 2011).

According to (Yumus & Bayhan, 2016), early childhood educators have insufficient knowledge and skills for the understanding of behaviour problems, developing daily task suitable for the children's interest and needs. Educator's age, level of education and teaching experience and teachers' self-efficacy are the contributing factors for teachers' inability handling children who are at risk of behaviour problems. His findings also indicated that teachers are unable to employ the proper strategy to deal with behaviour problems. A final point from Yumus & Bayhan also indicates that inexperience in understanding children's behaviour problems prevents teachers from structuring appropriate intervention plans to combat the behavioural issues faced in the classroom. The lack of intervention plans will not only fail to solve the behaviour problem but also increase the tendency for more behaviour issues to emerge. There is a lack of research on preschool educators' role and competencies or self-efficacy coping with these difficulties and mainly the emotional ones, which are often under-recognised (Poulou 2015). Similar findings were found in a study conducted by (Nornadia Mohamad Razali, Hasnah Toran, Sazlina Kamalzaman, Norshidah Mohamad Salleh, & Mohd. Hanafi Mohd. Yasin, 2013) on the obstacles of implementing inclusion in Malaysian preschool. The study indicated that educators are not prepared to include children with a disability like autism in the class because they do not understand the characteristics of children with autism. General educators have reported that they have low confidence or inexperience to select the right method of investigation on why children pose inappropriate behaviours in the classroom (Stormont, Reinke & Herman, 2017). When ECE educators receive sufficient coaching on effective behavioural management practices,

young children who are engaged in behavioural issues improve in their social and emotional skills (Louise & Maureen, 2018). Educators require an understanding of children's behaviour problems, but above all, constructive suggestions for everyday practice is vital (Bruggink et al., 2013).

Besides this, there are also several findings reported on educators attitudes towards managing behavioural problems is influenced by the support system available in the school environment. A research study indicates that centre level support or school level support should be given individually to educators who are struggling with challenging classroom (K. M. Zinsser & Curby, 2014). Lack of support from the school or centre is being one of the contributing factors of teacher burnout due to job-related stress (Guhao, 2016). A study by (Friedman-Krauss et al., 2014) has reported that early childhood educators are experiencing a high level of stress due to poor work conditions, workplace relationships, intrapersonal factors and children's challenging behaviours. Despite this, educators who are supporting children with behaviour problems in the classroom is not supported by their working environment and efforts needed to increase high-quality early childhood workforce (Katherine M. Zinsser et al., 2016). In the same perspective (Miller, Smith-bonahue, & Kemple, 2017) pointed out that the more support the teacher reported receiving from the school environment, the fewer possibilities of children being rejected from preschool programs. Conclusively educators with high tolerance level, sufficient training, professional development courses, availability of support from the school environment ensure children with behavioural problems are accepted in the general education programs. Educators are consistently motivated to find a solution to accommodate the learning needs of these children when educators themselves perceive sufficient support.

III. Behaviour Screening Tools in the Education Field

The success of treating behaviour problem predominantly depends on the necessity of assessing such problems effectively. When problems are identified successfully, intervention is crucial to reduce the negative impact of the behaviour and support positive behaviour building (Purpura & Lonigan, 2009). Current methods of measuring behavioural problems are in the clinical setting and often time consuming because of the length of the measures. Mostly, educators and school administrators find it very difficult to adapt the clinical screening tools to be used in the classroom setting. Therefore, screening tools in the education setting must be convenient, easy to administer and user-friendly to the person who needs it. Literature shows that there are many behaviour screening tools or assessment scales available within the practice mainly used by the medical practitioners for early identification of children at risk of emotional and behaviour disorder. In the western education system, some of these scales are also adopted to be in preschool classrooms to identify young children with behaviour issues. The Motivation Assessment Scales (MAS), Preschool Behavior Questionnaire (PBQ),Questions About Behavior Functions (QABF), The Disruptive Behavior Disorder Rating Scales (DBDRS), Sensory Profile Questionnaire (SPQ) are widely used by the preschool teachers in the west to assess preschool children at risk of emotional and behavior disorders.

In Malaysia, the screening tools used in the primary care settings are like Checklist For Autism in Toddlers (CHAT), Modified Checklist for Autism in Toddlers (M-CHAT) and Social Communication Questionnaire (SCQ) (Clinical Practice Guidelines 2014). However, in the government education system, educators are yet to discover or develop one that can be used to make a functional assessment for children at-risk in the classroom. The norm practice is that educators will identify students at risk of developmental delays through random observation and suggest for referral verbally to the parents. Especially children with special needs placed in the mainstream schools, educators feel helpless and face challenges to address the early identification to parents. Adding to it, lack of suitable screening tools to report observations unable teachers to move forward in solving the issues faced both for confronting parents or planning intervention treatment. Functional behaviour analysis or functional behaviour assessment does not widely practice in Malaysian's government education system. The need for an assessment scale that is age-appropriate and specific measure the behavioural problem of young children for referral and treatment in Malaysian's government preschools is crucial. Literature studies report that there is much research conducted on developing a behaviour screening tool or assessment scales, adoption and adaptation of existing screening tools or scales. There is a study conducted on Corner's Teacher Rating Scale (CTRS) which one of the most widely used behaviour scales to measure children's behaviour problem. The purpose of this study was to construct a measure of behavioural problems (Inattention, Hyperactivity-Impulsivity, and Oppositional behaviours) from the CTRS that was closely associated with DSM–IV-TR behavioural problems that were brief, psychometrically sound, and appropriate for use with preschool children (Purpura and Lonigan, 2009). The study indicates that adaptation of this rating scale requires a shorter amount of time that encourage teachers to engage widely on the usage to assess children-at-risk in the classroom. Implementing behavioural and emotional risk screenings using teacher ratings in school settings may be one important avenue for reaching young children with behavioural problems early before problems have

adverse effects. Given the goals associated with universal screening, evaluation of screening tools to identify behavioural and emotional need is warranted. High-quality screening measures of behavioural and emotional risk have promise for ensuring that young children have timely access to comprehensive prevention and intervention services (DiStefano, Greer, Kamphaus, & Brown,2015). Relatively in Malaysian's public school system, very few studies conducted on the developing screening tool focusing on preschool-age children at-risk of emotional and behaviour disorders. In this study, the symptomatic behaviour screening tool is developed based on Design and Development the model of Richey and Klien (2007). The need analysis of this study was determined based on the literature review of the variables (Ghazali Darulsalam & Sufean Husin, 2016).

PROBLEM STATEMENT

In the education system currently, assessment is available in the form of the checklist for literacy, numeracy, and writing, but less for behaviour symptoms to identify developmental delays of children age four years old and below. The available tools are not practical to be applied somewhat adapted or adopted for children aged 3 to 4 years old to identify symptomatic behaviours.

When educators fail to identify the potential problems in a child's development and ensure development is on target (Slentz, Early, & McKenna, 2008) most of the time the symptoms are left unaddressed (Miller, Smith-bonahue, & Kemple, 2017) for referral and special education services. When parents overlook the traits of developmental delays, educators are the second potential people to identify children with developmental delays from the symptomatic behaviours. Alternatively a failure to provide early intervention timely due to lack of early identification, inaccurate diagnosis may result in grave consequences (Koegel, Koegel, Ashbaugh, & Bradshaw, 2014) like the persistence of behavioural problems, poor academic performance and prevention from reaching functional abilities.

On the other hand, educators, who are the primary early detect have reported both a lack of preparation and knowledge on early detection of children with social and behavioural needs(Stormont, Reinke, & Herman, 2017). Since not all children at-risk of delays are identified by their parents at home (Zhang & Morrison, 2018), early detection in the educational setting is essential.

At the same time, the lack of behavioural support from the school management is also another reason why educators are facing challenges to manage children's behavioural problems (Miller, Smith-bonahue, & Kemple, 2017). It is undeniable that educators need support from the school management for resources and guidance (Nye et al., 2016). Proper supervision from the school management, access to mental health consultants and cooperation from co-workers can be an excellent resource for providing ECE educators with on the job support to address children's behaviour problems (Miller, 2014).

However in Malaysia, developmental screening or commonly known as developmental surveillance is available and done by primary care practitioners alone (Hussain Iman Muhammad Ismail, Ng H. P, & Thomas, 2017; Paediatric Department Hospital Ipoh, 2008). The reason being, the primary care settings are the place where most children younger than five years old are seen and ideal for developmental and behaviour screening (American Academy of Pediatrics, 2002). However, screening for early identification is also crucial to practice in the school system. Since screening is commonly to be MOH's responsibility alone (Faridah M. Said, Jamilah Othman, Maimunah Ismail, Bahaman A. Samah, & Khairudin Idris, 2011), the school system in Malaysia in all education levels are not introduced to use screening tools for early identification.

Hence to enhance ECE educators' knowledge in the behaviour problems management and early identification, there is a need to develop a screening tool that precisely screens children with behavioural issues. Thus, this study is about developing a screening tool for ECE educators to identify symptomatic behaviours that may relate to developmental delays among young children in early childhood education centres.

OBJECTIVE OF THE STUDY.

1. To develop a screening tool for educators in early childhood education centres to screen children with symptomatic behaviour indicating developmental delays.
2. To test the suitability of the screening tool and analyse educators' responses on the usability of the screening tool.

RESEARCH QUESTIONS.

1. What is the design and development model of the screening tool to assess children's symptomatic behaviour?
    a) What are the suitable constructs of measurement for screening symptomatic behaviours of children based on expert's consensus ?

b) What are the suitable items in the main constructs for screening symptomatic behaviours of children based on expert's consensus?
c) What are the sequence priorities of the items in the screening tool based on expert's consensus?

2. What is the usability and suitability of the screening tool to screen children with symptomatic behaviours from educators opinions?

a) What are educator's opinions on the suitability of the items under the section of child's details in SymBest
b) What are educators opinions on the suitability of the main constructs of SymBest?
c) What are educators opinions on the suitability of the items in each construct of SymBest?
d) What are educators opinions on the usability of SymBest overall to identify children's symptomatic behaviours to a disorder?

THEORETICAL FRAMEWORK

The primary focus of the study is to develop a behaviour screening tool to identify symptomatic behaviours that may signify delays among children aged 3 to 4 years , obtain experts' consensus on the constructs and items of the screening tool and to investigate educators opinion on the usability of the screening tool. First, to support children with behaviour problems, educators have to identify the symptomatic behaviours posed by children across all developmental domains. Identifying symptomatic behaviour and knowing why behaviour problems are occurring will help educators to plan positive behaviour support to children. The foundation of this research is based on Arnold Gesell's Maturational Theory, Piaget's Theory of Cognitive Development explicitly referring to the Preoperational Stage, and Developmentally Appropriate Practices to assist the development of the constructs and items of the screening tool. This research will correlate several child development theories and the Developmentally Appropriate Practices Framework by considering the child as a dynamic individual with differentiated abilities.

Arnold Gesell's Theory of Maturation

Arnold Gesell, a developmental psychologist believe in individual differences, which means children differ by chronological ages and developmental ages. Developmental age is an age in years and half years, which best describes a child's collective behaviour and performances on a developmental scale. Developmental age can differ from a child's chronological age, in context of being lower or higher or the same (Guddemi, Sambrook, Wells, Randel,Fite,Selva & Gagnon, 2014). It is vital to know each child's developmental age so that parents and educators can provide developmentally appropriate learning experiences. Gesell's extensive research on children's verbal, motor, social, emotional and cognitive development enabled educators and parents to understand children and their development. He highlights that normative behaviour is just a guide of merely fraction in the spectrum of behaviours and abilities that falls within a healthy range. This draws out our attention to understand that normative behaviours are just a guide for teachers or parents to identify individual differences. Therefore, it is quite reasonable for children's ability to differ from their peers due to primary factors like environment and experiences. However, Gesell's points out that, careful observations are needed to determine if the child is showing symptoms that indicate the need for support or intervention. Gesell's theory was adopted as a significant guide in this research along with other developmental theories and practices.

Piaget's Theory of Cognitive Development.

The cognitive theory is to support and to understand children's developmental milestones in all the development domains. Cognitive development and thinking pattern of children is strongly influenced by other developmental domains like motor, language and communication, social and emotion as well as creativity. Piaget believes that children are in a state where they want to make sense out of their experience, and, in the process of doing, so, they, construct their understanding of the world. Children are exposed to several factors like environment, experience, health, consumed nutrients , and gene that determines children's thinking and behavior. In Piaget's perception real learning experiences occurs when new experiences are assimilated into pre-existing schemas, and pre-existing schemas are accommodated to fit new experiences. As the thinking process starts to develop, children learn to plan for the desired target. However, to achieve the desired target, it is important to build adequate abilities. Otherwise, the planning will not add any meaning to it. Every action performed by children involves the integration of all the developmental domains, along with cognitive ability. In the pre-operational stage, children represent their world to adult in a symbolic way; they use symbols to represent

object and events. In this stage, children believe that every individual around them view the world as same as they do. That is why they have difficulties in understanding the world around them from another's viewpoint and at times adults find children posing behaviours that are uncommon in social norms. To support precisely on children and their moral behaviour, the progression of children's developmental domains in the preoperational stages were studied. Social interaction within their environment, supports children's development like intellectual development, language and social skills. Children learn from the stimulation they receive from their environment, which is the interaction with adults and their peers. Development happens progressively when there is sufficient interaction. Children can perform better or reach a higher level of achievement when guided by a more skilled adult or peers (Kail, 2010).

Developmentally Appropriate Practices.

Developmentally appropriate practices (DAP) is an approach based on the knowledge of how young children develop and learn. It was first adopted by the National Association for the Education of Young Children (NAEYC) in 1987 and was further revised in 2009. NAEYC 's position statement on DAP is a framework designed to promote young children's optimal learning and development. The purpose of DAP is to have a clear understanding of appropriate practices that could be used by early childhood educators or programs, to focus on how to serve the needs of developing children in the best ways possible. Early childhood educators make many decisions, both short term and long term in their practice daily. When educators make decisions, the NAEYC Position statement reminds us that three types of information and knowledge form the basis of decision making. Educators are expected to know about child development and learning in order to plan the right program that will promote children's learning and development. Educators are also encouraged to identify children's individuality and be responsive to individual variations. Knowing and understanding the social and cultural context from where the child is from is a key component for educators to plan a meaningful education strategy for children (Position Statement NAEYC, 2009). Several principals that were addressed in DAP were utilised as the foundation of Symbest development study. One of the main principal addressed in DAP, distilled from literature is the importance of all the developmental domains. These include physical, social and emotional, cognitive and language, which are all closely interrelated Children's development and learning in one domain affects the others. It can also be uneven across different areas of the domains. Children's development and learning must be recorded in order to recognise the sequence of child development. DAP framework guides the development of SymBest in this research. Figure 1 below shows the theoretical framework of the study.

METHODOLOGY.

I. The Development of SymBest.

The SymBest consist of five child developmental domains as measuring constructs and the developmental milestone's red flags under each domain as items. The 5 children's developmental domain is from the theory of maturation and the theory of cognitive development and developmentally appropriate practice framework (DAP) by National Association for the Education of Young Children (Copple & Bredekamp, 2009; National Association for the Education of Young Children (NAEYC), 2009). Whereas the items of SymBest were adapted from the Red Flags: A Quick Reference Guide for Early Years Professionals by York Region Early Identification Planning Coalition, 2009 (Easton, Green, Ollen, Mintz, & Waddell, 2009) to identify the delays. However, a group discussion was also held with three renowned paediatricians to discuss the cultural appropriateness of the selected red flags to be the measuring items. The decision to lift the child development theories, DAP Framework and the Red Flags Guidelines as the blueprint of SymBest development is ideal because the screening tool is for early identification of symptomatic behaviours indicating developmental delays for children aged 3 to 4 years old.

Child Development Theories: The Symptomatic Behaviour Screening Tool (SymBest) is purposely to screen children with symptomatic behaviours as an indication of having developmental delays. To meet the purpose of SymBest, Theory of Maturation by Arnold Gesell and Theory of Cognitive Development by Jean Piaget was adopted to analyse the developmental norms of children age 3 to 4 years old. The constructs of SymBest is derived from these two theories, which explain a child's development is measured according to the developmental domains and the milestones of the developmental age.

Developmentally Appropriate Practice Framework: The principle one of 12 Principals of Developmentally Appropriate Practice denote that domains of children's development; physical, social, emotional and cognitive are closely related. The development of one domain is influenced and influences by the other domains. Empirically development occurs orderly and in sequence whereby new skills are acquired based

on prior learnt skills (National Association for the Education of Young Children,2009). Child development varies from child to child within different areas of functioning. In the DAP approach, it is significant that there are three core considerations which supported SymBest's development as an early identification tool. In the Position Statement (2009), stated that ECE practitioners must know these three core considerations when deciding for children's learning. Firstly educators must know about child development so that they know what is typical and symptomatic. Secondly, it is also important that educators recognise children individually by assessment methods like observation, clinical interview, child's work, individual child assessment, and speaking to families. Finally, efforts to know the child culturally is vital for a meaningful, relevant and respectful learning experience (Position Statement NAEYC, 2009). The three core consideration justifies why early identification practices is a need in the ECE practice.

Red Flags: A Quick Reference Guide for Early Years Professionals: After deciding the constructs of SymBest which are the domains of child development ,the items selected for each domain are from Red Flags: A Quick Reference Guide for Early Years Professionals by York Region Early Identification Planning Coalition, 2009.

Paediatric Group Discussion : Finally a discussion was held with the paediatricians to seek their opinion so that the items chosen are culturally appropriate. During the discussion, several new items suggested by the paediatric experts, which were included in the screening tool. Finally, the constructs and items of SymBest were formed. The items were then validated for language appropriateness as well as for content by a language expert and an academician in the field of early childhood education. In Table 1 the total constructs and items of SymBest from the child development theories, DAP (NAEYC) & Red Flags: A Quick Reference Guide for Early Years Professionals by York Region Early Identification Planning Coalition, 2009 and Pediatric Group Discussion is prearranged.

Table 1 Constructs and items of SymBest from DAP (NAEYC) & Red Flags: A Quick Reference Guide for Early Years Professionals by York Region Early Identification Planning Coalition, 2009 and Pediatric Group Discussion.

Developmentally Appropriate Approach (NAEYC) (Constructs) (Copple & Bredekamp, 2009; National Association for the Education of Young Children (NAEYC), 2009)	**Red Flags: A Quick Reference Guide for Early Years Professionals by York Region Early Identification Planning Coalition, 2009 (Items) (Easton et al., 2009).**	**SymBest Constructs**	**SymBest Items**
1. **Physical Development** • **Physical growth** • **Sensory & perception** • **Motor** **(Theory of Maturation & Piaget's Pre-operational stage)**	Fine Motor, Gross Motor & Sensory	1. Sensory and Motor Development.	**Red Flags: A Quick Reference Guide for Early Years Professionals by York Region Early Identification Planning Coalition, 2009 & Pediatric Group Discussion. 30 items.**
2.Language, Communication and Early Literacy • **Oral language and communication** **(Theory of Maturation & Piaget's Pre-**	Literacy, Speech and Language	2. Language & Communication Development	**Red Flags: A Quick Reference Guide for Early Years Professionals by York Region Early**

operational stage)			**Identification Planning Coalition, 2009 & Pediatric Group Discussion.** 25 items
3. Cognitive Development. • **Attention** • **Memory** • **Mental representation** • **Logic and characteristics of thought** • **Reasoning** • **The concept of acquisition & classification.** **(Theory of Maturation & Piaget's Pre-operational stage)**	School Readiness	3. Cognitive Development	**Red Flags: A Quick Reference Guide for Early Years Professionals by York Region Early Identification Planning Coalition, 2009 & Pediatric Group Discussion.** 18 items
4. Creativity Development. (Theory of Piaget) **(Theory of Cognitive Development, Piaget)**	School Readiness	4. Creativity Development.	**Red Flags: A Quick Reference Guide for Early Years Professionals by York Region Early Identification Planning Coalition, 2009 & Pediatric Group Discussion.** 11 items.
5. Social & Emotional Development. • **Interaction** • **Prosocial behaviour** • **Aggression** • **Sense of self** • **Emotional competence** • **Conscience** • **Stress, coping and resilience** **Theory of Maturation, Theory of cognitive development)**	Social & Emotional	5.Socio & Emotional Development	**Red Flags: A Quick Reference Guide for Early Years Professionals by York Region Early Identification Planning Coalition, 2009 & Pediatric Group Discussion.** 28 items

II. Fuzzy Delphy Method

After the development of SymBest, the constructs and items were validated by the Fuzzy Delphi method. The Fuzzy method is an analytical method based on the Delphi method that draws on the idea of the Fuzzy theory. This method uses the independent consensus of a group of experts in the subject field. The purpose of this method was to elicit perceptions or judgements held by "experts" knowledgeable in a specialized area (Blair & UHL, 1993). A survey questionnaire was developed to get experts view on the appropriateness of the constructs and items suggested to form the screening tool. The questionnaire consists of 7 sections with 7 point Likert scale. Section A is experts demography; Section B is experts view on the constructs of SymBest; Section C is experts view on the items of construct sensory and motor development ; Section D is experts view on the items of construct language and communication development; Section E is experts view on the items of construct social and emotional development ; Section F is experts view on the items of construct cognitive development and Section G is experts view on the items of construct creativity.

III. Nominal Group Techniques (NGT)

In this phase the usability and suitability of SymBest sought the opinion and perception of ECE educator's by using a survey questionnaire which was adapted from (Mohd Ridhuan Mohd Jamil, 2017). The data collected from the survey questionnaire was analysed with Modified Nominal Group Techniques (NGT). In NGT, the decision is made after conducting a group discussion with a number of participants face to face (Aizzat Mohd. Nasurdin, Intan Osman, & Zainal Arrifin Ahmad, 2006). The systematic process of NGT allows a group consensus to achieve based on individuals responses (Delbecq & Van de Ven, 1971; Varga-atkins, Mcisaac, & Willis, 2015). The active engagement of participants during NGT ensures the outcomes are not subject to facilitators interpretation nor dominated by the more vocal group members (Burrows, Findlay, Killen, Dempsey, Hunter & Snodgrass, 2011). The reason being, NGT allows each member of the group to participate in the process in a structured way without having to influence each other. Since the nature of the method is such that it enables the researcher to identify the shared views of a target group on a specific topic (Kennedy & Clinton, 2009). The NGT process initially starts by gathering and accepting idea without making judgements (qualitative) followed by screening or ranking the ideas in sequence priority (quantitative) (O'Neil & Jackson, 1983). In contrast NGT can be also fully quantitative if it is used as a technique to evaluate the usability of a product which then the method is known as Modified Nominal Group Technique (Dobbie, Rhodes, Tysinger, & Freeman, 2004). In SymBest study, the Modified NGT was employed because the researcher intend to evaluate the usability of the tool.

FINDINGS.

I. Findings of Fuzzy Delphy Analysis.

Results are presented below under 3 headings to answer three sub questions in this phase. What is the design and development model of the screening tool to assess children's symptomatic behaviour?

a) What are the suitable constructs of measurement for screening symptomatic behaviours by children based on experts consensus?

It is interesting to note that, four constructs out of five constructs proposed is accepted. Referring to the first rule in FDM ,construct of sensory and motor development, language and communication, social and emotional and cognitive have consensus among the experts with threshold value score below than 0.2. Whereas the construct creativity had a value score above 0.2. Based on experts view, the threshold value, "d" was calculated for all the constructs to determine the consensus level among experts for each constructs. Constructs creativity which exceeded the value of 0.2, indicates the individual experts views for the particular construct are not in consensus with other expert participants (Ching H. C & Yin L., 2002). Therefore the construct creativity was rejected based on experts consensus. However, the calculation of the threshold value is performed overall for the questionnaire items. The second rule of FDM is percentage consensus of experts must be more than 75 %. The construct sensory and motor development, language and communication, social and emotional and cognitive have gained 100% of group consensus from the experts. However the construct creativity alone was rejected based on the calculated percentage of 66.67% of group consensus. The third rule of FDM is the fuzzy score (A) Average of fuzzy number of each construct must be α – cut = 0.5 (Bodjanova, 2006). The average fuzzy number is calculated to determine the ranking and it is not applicable for this section. In response to this rule, the constructs creativity was still rejected even though the fuzzy score value is more than 0.5. The

reason emerged is, in order for the construct to be accepted it has to meet the criteria set for all the three rules in FDM. Apparently only one rule is accepted. Moreover, ranking is not needed in this section. Therefore the construct of creativity is rejected to form SymBest.

b) What are the suitable items in the main constructs for screening symptomatic behaviours of children based on expert's consensus?

The findings of this question will be explained according to the constructs.

Construct 1: Sensory & Motor Development.

Precisely to meet the first rule in FDM , there are 13 items under the construct of sensory and motor development have consensus among the experts with threshold value score below than 0.2. Whereas 17 items were reported to have a threshold value above 0.2. This indicates the individual experts views for the particular items are not in consensus with other expert participants (Cheng & Lin, 2002). The second rule of FDM is percentage consensus of experts must be more than 75 %. 13 items under the construct sensory and motor development have gained group consensus more than 75 %. However 17 items from the total proposed items was rejected based on the calculated percentage of below than 75%.

Construct 2: Language and Communication Development

In this section, 12 items under the construct of language and communication development have consensus among the experts with threshold value score below than 0.2 and 13 items with threshold value above 0.2. The second rule of FDM is percentage consensus of experts must be more than 75 %. 12 items under the construct language and communication development have gained group consensus more than 75 %. However 13 items was rejected based on the calculated percentage of below than 75%.

Construct 3: Social and Emotional Development.

In this section 17 items under the construct of social and emotional development have consensus among the experts with threshold value score below than 0.2 and 11 items were rejected based on the threshold value above 0.2. The second rule of FDM is percentage consensus of experts must be more than 75 %. 17 items under the construct of language and communication development have gained group consensus more than 75 %. However 11 items was also rejected based on the calculated percentage of below than 75%.

Construct 4 : Cognitive Development

In the section the items under the construct cognitive development was analysed. 9 items under the construct of cognitive development have consensus among the experts with threshold value score below than 0.2 and 9 items were rejected. The second rule of FDM is percentage consensus of experts must be more than 75 %. 9 items under the construct language and communication development have gained group consensus more than 75 %. However 9 items proposed was rejected based on the calculated percentage of below than 75%.

Construct 5: Creative Development

The constructs and items of creativity will be dropped in the formation of SymBest. As explained in the first sub research question, construct creativity was rejected based on the calculated percentage of 66.67% of group consensus. The analysis of the items representing the creativity shows only 4 items selected out of 11 questions proposed. Since the construct itself was rejected and the number of items accepted was low based on experts consensus, creativity development will be eliminated from SymBest.

C) What are the sequence priority of the items in each sections in the screening tool based on experts consensus?

The third rule of FDM is the fuzzy score (A). Average of fuzzy number of each construct must be α – cut = 0.5 (Bodjanova, 2006). The average fuzzy number is calculated to determine the ranking of the items. The rank of the items are arranged based on the fuzzy scores. In response to this rule, Table 2, 3, 4 and 5 shows the

accepted items under the construct sensory and motor development, language and communication development, social and emotional development and cognitive in ranking with fuzzy scores above 0.5.

Table 2 Items ranking under the construct of sensory and motor development.

Fuzzy Score	Ranking	Items
0.837	1.	Found restless with hands and feet.
0.831	2.	Avoid activities getting hand and feet messy(finger painting, play dough)
0.828	3.	Show repetitive movements (rocking, or repeated speech)
0.806	4.	Fall/ crash on the floor throughout the day.
0.804	5.	Focus visually on task
0.798	6.	Walks on toes
0.794	7.	Found over active or on the go more than other children (Jumps/ run/ climb)
0.794	8.	Sustain attention in activities
0.793	9.	Respond to name call
0.780	10.	Easily distracted
0.759	11.	Pay attention to the surrounding
0.754	12.	Fixed in certain objects, activities or topics
0.743	13.	Respond to and follow instructions presented verbally

Table 3 Items ranking under the construct of language and communication development.

Fuzzy Score(A)	Ranking	Language & Communication Development
0.859	1.	Say what he/she wants.
0.844	2.	Follow simple one commands (come,sit,go,take)
0.837	3.	To respond verbal or non verbal to “yes “ or “no”
0.809	4.	Join group activity
0.793	5.	Communicate easily with other children and adults
0.787	6.	Understand what is said to her/him
0.780	7.	Pay attention to a short story and answers simple questions about it.
0.746	8.	Enjoy looking at books and others stories
0.744	9.	Use colour, number and time related words, for example, 'red' car, 'three' fingers and 'yesterday / tomorrow'.
0.726	10.	Have poor vocabulary
0.707	11.	Greet
0.696	12.	Describe recent events, such as morning routines

Table 4 Items ranking under the construct of social and emotional development.

Fuzzy Score (A)	Ranking	Social & Emotional Development
0.942	1.	Initiate to make friends.
0.857	2.	Injure self while being angry (head banging, biting own self)
0.844	3.	Show interest in playing toys.
0.837	4.	Show appropriate facial expressions.
0.837	5.	Engage in pretend play.
0.824	6.	Injure others (kicking, hitting, biting, pushing)
0.820	7.	Prefer to be left alone.
0.819	8.	Have eye contact
0.815	9.	Wait for turns
0.806	10.	Play toys in typical way.
0.794	11.	Scream a lot more than other children
0.794	12.	Destroy others property
0.793	13	Throw things on others in anger
0.793	14	Destroy things in the classroom (wall charts, furniture)
0.798	15	Cry or scream as a respond to "no" or "stop" command
0.763	16	Destroy own properties
0.717	17	Snatch things from others (toys , food)

Table 5 Items ranking under the construct of cognitive development.

Fuzzy Score (A)	Ranking	Cognitive Development
0.796	1.	Know own name
0.793	2.	Know what common objects are used for
0.791	3.	Uses objects and materials to build or construct things, e.g. block tower, puzzle, clay, sand.
0.785	4.	Organize objects by size
0.770	5.	Organize objects by shape
0.769	6.	Correctly name at least four colors and three shapes
0.761	7.	Have a longer attention span of around 5 to 15 minutes
0.735	8.	Know own age
0.719	9.	Recognize some letters

II. Findings of Nominal Group Technique.

Educator's view on items suitable for a child's information details.

The usability evaluation of this section answered the following research question:

1 (a) What are educator's opinions on the usability of the items under the section of child's details in SymBest

Findings obtained from the data analysis, reports that all the items under the child's details are reported accepted for use based on the educator's view. There were 10 items suggested in the child's details section, which was accepted based on usability percentage ≥ 70.0% (Deslandes, Mendes, Pires, & Campos, 2010; Dobbie et al., 2004).

Educator's view on the usability of the constructs in SymBest's.

In this section, the usability evaluation was carried for the constructs of SymBest by seeking for educator's opinion. The evaluation was sought to answer the following research question:

1(b).What are educators opinions on the usability of the main constructs of SymBest?

There are 4 constructs in SymBest that is, sensory & motor development, language & communication development, social & emotional development and cognitive development. The analysis was carried out to view the educator's opinion on the usability of the 4 constructs representing SymBest. The findings report that all the 4 constructs are suitable to represent SymBest based on educator's opinion. The constructs are accepted based on usability percentage of ≥ 70.0% (Deslandes et al., 2010; Dobbie et al., 2004).

Educator's view on the usability of the items under each construct in SymBest.

The SymBest screening tool consists of 4 developmental domains as the constructs of measurement. Under each construct the items are the red flags or developmental delays identified in children. The items or the red flags were adapted from the Red Flags: A Quick Reference Guide for Early Years Professionals by York Region Early Identification Planning Coalition, 2009 & Paediatric Group Discussion.

1(c). What are educators opinions on the usability of the items in each construct of SymBest?

The findings obtained will be presented in 4 segments according to the constructs.

(1) Items under construct sensory & motor development.

There are 13 items gathered under the construct of sensory & motor development. The analysis reports that all the 13 items are accepted for use based on educators opinion and NGT usability percentage of ≥ 70.0% (Deslandes et al., 2010; Dobbie et al., 2004).

(2) Items under the construct language & communication.

There are 12 items accumulated under the construct of language & communication development. The analysis reports that all the 12 items are found accepted for use based on educators opinion and accepted based on NGT usability percentage ≥ 70.0% (Deslandes et al., 2010; Dobbie et al., 2004).

(3) Items under the construct social & emotional development.

There are 17 items gathered under the construct of social & emotional development. The analysis reports that all the 17 items are accepted based on educators opinion and accepted based on NGT usability percentage ≥ 70.0% (Deslandes et al., 2010; Dobbie et al., 2004).

(4) Items under the construct cognitive development.

There are 9 items gathered under the construct of cognitive development. The analysis reports that all the 9 items are accepted for use based on educators opinion and accepted based on NGT usability percentage ≥ 70.0% (Deslandes et al., 2010; Dobbie et al., 2004). The next section will answer the final research question of .the usability phase.

Educator's view on the usability of SymBest overall as a screening tool to identify children with symptomatic behaviours.

The usability items in this section was adapted from (Mohd Ridhuan Mohd Jamil, 2017) and modified to meet the requirement of this research. There are 6 usability items in this section with 7 point Likert of agreement from totally disagreed to totally agreed. *T*able 6 will present the percentage of agreement of the participants on the usability of SymBest on the whole.

Table 6 Educators' view on the usability of SymBest on the whole.

No.	Usability of SymBest to screen children with symptomatic behavior	Total Score (n=21)	Percentage (%)	Results
1	SymBest helps ECE educators to identify children aged 3 to 4 years old for symptomatic behaviour.	145	98.6	Agreed
2	The construts in SymBest are suitable for screening children aged 3 to 4 years old for symptomatic behaviors.	141	95.9	Agreed
3	The items under each constructs in SymBest are suitable to screen children aged 3 to 4 years old for symptomatic behaviors.	140	95.2	Agered
4	SymBest encourages ECE educators to develop intervention plan for the children identified having symptomatic behaviors.	141	95.9	Agreed
5	SymBest guides ECE educators in referral decisions (special programs, doctor's visit and etc).	144	98.0	Agreed
6	SymBest guides ECE educators to discuss with parents.	143	97.3	Agreed

Findings from the table 6, proves that ECE educators have agreed the Symptomatic Behavior Screening Tool (SymBest) on the whole is usable for screening and identifying children of age 3 to 4 years with symptomatic behaviour. All the 6 items in this section have gain consensus more than 70% based on the educator's opinion. It was vital in this phase to seek experts opinion on the usability of SymBest overall as a screening tool.

DISCUSSION

The article has discussed the development of Symptomatic Behaviour Screening Tool (SymBest) as a support to ECE educators for early identification in the educational setting. It is very important to identify which children may need intensive and targeted supports for referral completion (Jennings 2012). Based on the Fuzzy Delphi results, findings shows that the constructs of sensory and motor development, language and communication development, social and emotional development and cognitive development is suitable as a measurement construct for SymBest. The items accepted under each constructs based on experts group consensus is fairly representing children's symptomatic behaviors. To determine the scoring indicator, SymBest tool was pilot tested on 42 special needs children with medical diagnosis. A cut-off point for every section and overall result was obtained from the pilot test as a score indicator to interpret SymBest result. In section B, score value of 72.50% and below will indicate the child to be symptomatic. In section C, score value 72.11% and below will indicate the child to be symptomatic. In section D, a score value of 73.74% and below will indicate the child to be symptomatic. In section E, a score value of 79.14% and below will indicate the child to be symptomatic. Finally, the overall findings of all 4 section , score value of 77.80% and below will indicate that the child is symptomatic to developmental delays. From the results, educators and parents can clearly understand the primary weakness of the child being screened. This will help both educators and parents to recognise the typical development and the developmental delays. In terms of behavioural problems, SymBest helps educators to understand the behaviours which is symptomatic to delays by the persistence of the behaviour in minimum familiarisation period of 3 months. SymBest webapp can be accessed through the URL symbest-screening.firebaseapp.com

The uniqueness of SymBest compared to other available screening tools are the presence of child developmental domains as constructs and the red-flags of milestones as the measuring items. The red-flags, which is termed as symptomatic behaviours in this study, are placed under each construct as a guide for educators to recognise behaviours at-risk of delays. As been rule out in the problem statement, developmental screening is not practised in the Malaysian education system, specifically on early identification of symptomatic behaviours as the Ministry of Health shoulders it by itself. Since screening is merely for recognising the symptoms of delays, surely it is not a formal diagnosis. Therefore screening children for developmental delays in the early childhood education centres are acceptable to guide educators for referrals. In line with this, SymBest's features with developmental domains as constructs and red flags as items have met the purpose of early identification in the early childhood education system. The items in each construct are specifically for the developmental age of 3 to 4 years old. Aside from this, SymBest has a particular element that the tool must be only used after a minimum familiarisation period of 3 months with the identified child. Ratings interpreted with any shorter familiarisation period will be invalid.

To facilitate the ECE educators to use SymBest more easily and efficiently, it is made into a fully featured web app with several functions like instant scoring upon completion, scores interpretation for each contructs, overall interpretation, constructs and items in dual languages (English language and Bahasa Melayu) and saving the report in the PDF file. It is swift and user-friendly because it is optimised for mobile and personal computer users with Andriod, IOS and PC operating system. Any user with internet connectivity can access to SymBest anywhere in no time. The application only stores the information locally in device and will be erased upon the next usage. A brief and simple screening tool will motivate educators to practice screening(Slentz, Early, & McKenna, 2008) besides gaining an understanding of the screened child's behaviours.

Aside from all these features, SymBest is also formed with Likert scale responses different from many other tools introduced by the Ministry of Education (MOE). The screening tools introduced by MOE like IPMBD, SDI, SSP, IMPAK and PERMATA Development Checklist are mostly in dichotomous(Yes/No) responses. In dichotomous, there are only two possible answers, which mean screener gets only two choices to rate (Uma Sekaran, 2013). Although the advantage of dichotomous is apparent that it is quick and easy to score (Ghazali Darulsalam & Sufean Husin, 2016) unfortunately it does not allow for any degree of agreement for measurements involving perceptions, attitudes, agreement and behaviours. The properties of the Likert scale in SymBest provides a range of responses on how strongly the subject agree or disagree with statements (Uma Sekaran & Bougie, 2016). Screening tool with Likert scale responses is more reliable than dichotomous because it allows the one to measure people's attitudes, values, internal states and judgements about their own and others behaviour(Croasmun, 2011). Deciding the right scale of a screening tool is based on the objective of the research, and since SymBest was developed to identify the intensity and frequency of symptomatic behaviours posed by children, Likert scale responses are more suitable than dichotomous.

CONCLUSION

Consequently, SymBest tool pave ways for early identification practice especially early childhood programs. Screening in the education system should be available in both nursery (Taska) and preschool (Prasekolah) besides the screening effort by MOH. Similarly, SymBest can also be used by educators from both private and public early childhood programs. At the same time, SymBest is also practical for parents usage to screen for symptoms of behaviours in their children although parents population is not focused in this study.However, in future research, Symbest can be improved by including developmental milestones of children from three months to six years old and can be kept as an ongoing screening record. This will be a great help to ECE educators, especially those who are educating children below the age of 4. Government ECE institutions like GENIUS NEGARA and KEMAS are receiving children as early as three months year old. To improve SymBest in the future, the tool can be applied to a larger number of children diagnosed as special needs for a more reliable scoring indicator.

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