#### Research Article

# The Development of a Stimulation Guidebook for Children With Special Needs

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#### Abstract.

Parents of children with special needs must be actively involved in their child's developmental process by providing stimulation at home. A lack of stimulation can hamper the child's brain development and impact the development of their fine motor skills, gross motor skills, language, and social skills. To help parents, the author designed a stimulation guidebook for the parents of children with special needs. However, it is necessary to review the process of this book regarding the suitability of activities with the basic theory designed to stimulate each particular aspect and perform a validation test. This research was R&D to validate the contents of this guidebook. The research results showed that of the 18 activities with 48 assessment items, 33 items were in the quite valid category and 15 in the very valid category. The activities in this book obtained an average Aiken's V coefficient of 0.8, which was declared very valid. As for the benefits of this research, it can become a reference source supporting the field of education. Meanwhile, this book can be used by parents, teachers, therapists, and psychologists as a medium for stimulation when providing care and therapy to children with special needs.

**Keywords:** children with special needs, parents, stimulation

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### 1. INTRODUCTION

Children with Special Needs is a term used to designate individuals with obstacles or disorders in their physical, mental, and emotional conditions, which then affect their social activities. Having children with special needs requires parents to increase their attention, increase the intensity of meetings, and provide education. Parents will face more significant challenges in caring for and raising their children (1). Parents usually seek therapy or intervention when a child is diagnosed with a developmental disorder or obstacle. It is hoped that after receiving therapy, children will be able to adapt more quickly to the environment and fulfill their developmental tasks. However, parents can only depend partially on the therapy place, considering the limited therapy time of approximately 45-60 minutes in one therapy session (2). Therefore, the involvement and role of parents outside the therapy process is more significant and needed because children with special needs spend more time with their parents. Parents' contribution in

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providing care for their children helps the development of children with special needs by spending time doing activities, communicating with children, providing financial support, and playing with children (3).

The consequences of a lack of stimulation during a child's golden age will hinder brain development, which will also impact the development of fine motor skills, gross motor skills, language, and social skills. Children who receive less stimulation have the potential to experience developmental deviations or permanent disorders. In the case of children with special needs with limitations compared to normal children, the possibility that they can optimally fulfill all developmental tasks according to their age is smaller. However, this does not mean that children with special needs do not need stimulation to optimize their development through therapy. The process of growth and development of children with special needs requires an integrated stimulation process based on seven sensors: vision, hearing, touch, smell, taste, balance, and proprioception. Ayres (4) said that properly integrated processing of the seven sensors will optimize the child's body and development in the next stage. Apart from these seven sensors, experts explain that there is one sensor that also has an important role, namely interoception, which explains the feelings that occur within oneself, such as when you feel cold or want to urinate (5). Apart from that, social skills and the ability to regulate emotions are also essential for children with special needs because, by training in social and emotional skills, children with special needs will be able to carry out self-instruction, self-monitoring, and establish social relationships with peers, both verbally and non-verbally (6).

The aspects of sensory development that are important for optimizing growth and development in children with special needs, which have been discussed previously, really need to be understood by parents of children with special needs and need to be studied so that parents can be stimulated independently outside of expert therapy programs. the daily activities of parents and children with special needs can be meaningful in the sensory integration stimulation program. It is just that parents need knowledge and skills related to sensory integration stimulation through daily activities, including playing with children with special needs. (7) state that structured games or activities can build social skills in children. Apart from that, another similar opinion was expressed by (8), who created the 'Learn to Play' program with proven results to increase social interaction by 47.3% after being given for six months to children with developmental disabilities.

The presence of children with special needs in a social environment that becomes an inclusive environment also has a good impact not only on children with special

needs but also on normal children in general. This follows the opinion of (9) through experimentation on children with the autism spectrum who were placed in regular classes with classroom environment settings, selecting appropriate toys for children with special needs to facilitate interaction in playing with normal children, strategies grouping playmates between children with special need children and normal children, as well as the appropriate role of teachers in facilitating children with special need children in the play process, are determining factors in building social interaction in children with inclusiveness. The daily activities and play activities carried out by children with special needs have many benefits, as has been proven by several studies, including those presented by (10), who said that playing can help children practice communication and express themselves freely. Playing can be a medium or way of dealing with various children's problems, especially dealing with problems for children with special needs.

Based on the explanation above, this research aims to design a sensory-motor and socioemotional stimulation book through daily activities and play activities that parents of children with special needs can do with children with special needs in their daily lives. Researchers designed a stimulation guide book for children with special needs that parents can use independently as a stimulation medium for children with special needs outside of therapy programs with experts or therapists. This book contains instructions for carrying out simple daily activities and explanations for carrying out specific stimulation. Apart from that, it also explains the tools and materials needed and the benefits that will be obtained from this activity. The activities described in this book can be carried out by parents while accompanying children with special needs at home and in the surrounding environment with simple tools and materials that are affordable at home and in the surrounding area. So, there is a need for a review process for stimulation books regarding the suitability of each stimulation activity designed to stimulate sensorimotor and socioemotional aspects based on sensory integration theory and socioemotional theory.

### 2. METHODS

### 2.1. Research design

This research is a type of research and development. Development research is carried out to produce and develop a product, which can be in the form of design, learning materials, media, or learning strategies. This research is not to test a theory but to test

and perfect a product (11). (12) explain that there are three stages in testing a product: the first is conducting preliminary research, the second is the prototyping phase, and the third is the assessment phase. Preliminary studies have been carried out previously to create a prototype stimulation book. So, in this research, a formative evaluation was carried out to test the validity of the content of the stimulation book prepared (13) Formative evaluation is a research design to test the content validity of the stimulation guide book for children with special needs.

## 2.2. Participants

The research participant population is experts in children's disabilities, such as therapists, scientists, and doctors who practice dealing with children with special needs. Population sampling uses non-probability sampling, with a sampling technique using purposive sampling, namely a technique for determining samples using criteria and specific considerations with relevance based on research needs. The criteria for determining the criteria in this research were experts with professions as psychological scientists, especially in the field of individuals with special needs, clinical child psychologists at the children with special needs. Foundation, and clinical psychologists and therapists at the psychology clinic at Brigjend H. Hasan Basry Regional Hospital. The choice of subjects is determined according to the considerations of each expert judgment. These namely practitioners have mastered the knowledge related to children with special need's needs, especially for sensory-motor and socioemotional stimulation of children with special need so that the assessment of the content of the stimulation book is appropriate based on the expertise of each expert judgment.

#### 2.3. Phase Development

In the book development phase, researchers identified the need for sensory-motor and socio-emotional stimulation for children with special need. Then, design daily activities at home and in the environment around the house that parents usually do and can involve children with special needs to carry out these activities together. The design framework for the stimulation activity book is summarized in Table 1.

TABLE 1: Development of the structure of the book's content.

Book structure	Book Section	Materials					
Cover	Front cover	Book title "Stimulation guide book for children with special needs".					
Beginning sheet	Preface	The author's words					
	List of Contents	Sections					
	Introduction	Why this book are developed					
		Goals and objectives					
		How to use					
Section A	Stimulation	Definition of stimulation					
		The impact if the child lacks stimulation					
		Eight senses as targets for stimulation					
Section B	What are the benefits of playing for children	The benefit of playing for children					
		Play activities were chosen because play is one of the activities in occupational therapy for children with special needs.					
Section C	Variety of games	18 games accompanied by explanations of tools and materials, how to play, and the benefits of the game					
Section D	What do parents recommend and don't recommend doing?	Good					
		Not good					
Section E	Playing checklist	Filling regulations					
		Table used to monitor parents so that they routinely and consistently provide stimulation every day					
Final sheet	Closing	Bibliography					

The table above systematically explains how to write drafts based on ideas and thoughts so parents can easily understand them. The idea of writing is based on the importance of parents' contribution in providing stimulation for children at home and in the surrounding environment and the significant role of stimulation in the sensorymotor, socio-emotional, and communication aspects, which can be optimized in the growth and development of children with special need.

## 2.4. Content Validity

Content validity for surveys and measurement instruments is defined as the degree of appropriate item sampling for the construct measured, the representation of items in the content domain, and the degree to which the items match the domain of interest

when measuring a phenomenon (14–16). Content validity measures items for surveys or instruments, but no content validity measure is specifically for vignettes. Content validity is an essential concept for vignette development (17,18), and one study used an expert vignette review questionnaire, not identified as a measure of content validity but similar in that it assessed plausibility, clarity, simplicity, accuracy to domains, and selection of diagnosis from a drop-down list (19). Using a CVI for vignette validation is a logical method that could provide appropriate data for establishing validity. The book validation process in this research leads to a book's validity against the targets to be achieved, which experts in their field carry out. (20) explains that the validation process helps measure whether an instrument is valid; this research is a stimulation book.

In this research, the stimulation book, as an instrument that aims to stimulate aspects of stimulation, including sensory-motor, socioemotional, and communication, was tested for content validation based on the designed stimulation activities. Expert judgment assesses the content of stimulation activities based on theory on an assessment sheet containing two types of assessment: quantitative and qualitative. Quantitatively, the assessment of each activity with the aim of the simulation aspect is assessed using a Likert scale with a score range of 1-4 (1 = very suitable, 2 = suitable, 3 = not suitable, and 4 = very not suitable). Meanwhile, qualitative assessments are available as open criticism and suggestions for improving the content of stimulation activities, both the form of activity, the objectives of the stimulation aspects, and the stimulation tools and materials. So that researchers can improve the content of the stimulation book based on descriptive qualitative assessment.

## 2.5. Data Analysis Techniques

The assessment sheet filled in by expert judgment is provided in printout form and analyzed using Aiken's V index formula for quantitative assessment. The analysis uses assessment score processing by calculating the scores obtained from the assessment of very suitable, suitable, not suitable, and very not suitable according to Aiken's V formula as follows:

$$V = \frac{\sum S}{n(c-1)}$$

The V index ranges from 0-1, with the following categorization ((21) in Table 2:

Meanwhile, the qualitative assessment is analyzed by improving the book content based on criticism and suggestions from the expert judgment described. Overall, the

TABLE 2: Assessment Score Criteria.

Aiken's V Score Range	Categorization
$0.8 < x \le 1$	Very Valid
$0.4 < x \le 0.8$	Fairly Valid
$0 < x \le 0.4$	Invalid

quantitative and qualitative analysis serves to validate that this stimulation book's content is more optimal. This follows the opinion of (22), who said that content validity index surveys and expert panel interviews were used to inform improvements in validity.

## 3. RESULTS

## 3.1. Book Development

The stimulation guidebook for children with special needs is based on daily activities. The development of daily activities and play activities is designed to stimulate certain sensory and socio-emotional aspects. The presentation of game activities consists of the game's name, tools and materials, how to play, and the benefits of each activity as mentioned in Table 3.

TABLE 3: Development of Activities.

No.	Activities	Target Stimulation	Description
1.	Pesona air  Description:  a. Prepare two large enough containers; fill the first container with water and empty the second container.  b. Invite the child to sit in front of the container c. Ask the child to touch the sponge first to differentiate between the two surfaces of the sponge, then ask him to put the sponge in a container filled with water until the sponge looks full of water.  d. Once the sponge looks full, ask him to lift it and feel the sensation of the sponge being wet and heavy  e. Then, ask you to move the sponge into an empty container and squeeze the sponge until the water in the sponge comes out, and the sponge becomes dry and light again.  f. Do these steps until all the water has moved into the empty container.	Sense of sight and ability to focus	When children observe what happens when a dry sponge absorbs water and a wet sponge releases water when squeezed, and observes the movement of water from a container filled with water to an empty container

TABLE 3: Continued.

No.	Activities	Target Stimulation	Description				
		Sense of touch	When a child touches the surface of a dry sponge and a wet sponge				
		Proprioceptive sense	When a child squeezes a wet sponge to move water.				
2.	Olahraga Bersama  Description:  a. Prepare a small mirror and a small fan or object that can be fanned b. Encourage children to leave the house or room, such as in the yard c. Then ask them to do quite heavy activities, such as exercising (running, jumping, soccer, etc.) or sweeping the yard, so the child sweats. d. After sweating, ask what he is feeling. Suppose the child is not yet able to recognize the sensation of heat in his body. In that case, parents can explain that what he is feeling is the sensation of the body emitting hot temperature, so that his body produces sweat while showing the sweat on the child's face in the mirror. e. Then, use a fan or other object to create wind directed at the child. Parents can explain that the wind that the child is feeling is a cold sensation.		The child's interoceptive senses will feel different temperatures, namely hot temperatures when sweating and cold temperatures when parents fan the child so that he can be aware of what his body is feeling; the child will also know how his body responds to a situation, and he will also know what to do if he starts to sweat.				
		Proprioceptive sense	When children do sports activities				
3.	Ayo Merasakan  Decription:  a. Prepare dolls, mats, rice, and salt  b. Invite the child to sit in front of the object  c. Ask the child to touch the objects one by one, and give the child the opportunity to feel the texture of each object.  d. Parents can ask children about the texture they feel and help them conclude		When a child touches several objects with different textures, the child will notice various touch sensations.				
4.	Sedotan warna  Deskripsi:  a. Prepare colorful straws, then cut them into pieces about 2 cm long  b. Cut the mineral water bottle (practical to make it easier to remove the straw that has been inserted later)  c. Ask the child to sit opposite the parent and open the bottle cap  d. Hold a straw to the parent's eyes while calling the child's name and asking him to look  e. If the child cannot yet, for the first time, parents can model and direct the child's hand to take it and put it in. Repeat until the child gets used to the instructions.	Sense of sight	When the child takes the straw from the parent's hand and puts it in the bottle				

TABLE 3: Continued.

	TABLE 5. Continued.							
No.	Activities	Target Stimulation	Description					
		Proprioceptive sense	When a child clamps a piece of straw with his fingers					
		Practice eye contact	When the child follows the parent's instructions to look at the piece of straw in front of the parent's eyes					
5.	Mesin vakum  Description:  a. Prepare a container, straw, and origami paper, and cut the paper into a square measuring approximately 3x3 cm  b. Sit the child at the table c. Spread the pieces of paper on the table d. Place the container next to it e. Ask the child to put the straw in his mouth as if he wants to drink, then ask him to suck on the straw to move the paper into the container.	Sense of sight	When the child looks at the pieces of paper and moves them into the container					
		Proprioceptive sense	Training the proprioceptive sense, especially in the muscles of the oral cavity, thus training the ability to eat					
6.	Description: a. Sit opposite the child b. Parents create a rhythm with clapping and tapping c. Starting from 1 clap, two claps, and three claps, then ask the child to listen and repeat the claps made by the parents d. Do the same thing with tapping; parents can tap the table using a spoon, starting from 1 tap, two taps, and three taps, then ask the child to listen and repeat the pats made by the parent e. Parents can create a simple rhythm if the child can repeat the claps correctly.	Sense of hearing	When children listen to pats and knocks from their parents					
		Train children's memory skills	Train children's memory skills when asked to repeat the sound of clapping and tapping.					
7.	Kumpulkan Harta Karun  Description: a. Prepare one large container and three small containers b. Prepare ten pebbles, small twigs, and leaves for each c. Collect and arrange the prepared objects in a large container d. Then, ask the child to move and group objects according to variations in the three small containers provided.	The sense of sight	Train the child's visual perception and ability to focus when the child sorts objects mixed up in the large container.					

TABLE 3: Continued.

No.	Activities	Target Stimulation	Description
		Proprioceptive sense	When children pick twigs and leaves.
		Sense of touch	When children feel the texture of pebbles, twigs, and leaves.
		Controlling emotions	When children group objects one by one according to their categories.
8.	Bermain ke taman  Description: a. Invite your child to play at a park that has lots of flowers b. Invite children to play using grounding techniques, namely: Find five objects seen Find four objects that can be touched Find three sound sources Find two sources of scent Find one source of taste c. Then, let the child interact with children his age d. Keep an eye on your child	Sense of sight	When children see various kinds of inanimate and living objects with shapes and colors
		Sense of touch	When children recognize the various textures of objects around them
		Sense of hearing	When children identify voices and sounds around them through 3 sound sources
		Sense of smell	When children smell and respond to various aromas through the two aromas they find.
		Sense of taste	When a child tastes food that has been prepared.
		Physiologically	when children are exposed to sunlight, they breathe fresh air.
		Courage	When children explore the environment.
		Social skills	When children interact or communicate with people around them.
9.	Lempar tangkap  Description: Prepare a rubber ball with a textured surface Invite children to play in the field Stand facing the child, about 2m apart/adjustable Ask the child to throw the ball toward the parent, and if the parent catches it, repeat several times Ask the child to catch the ball thrown by the parent, repeat several times	Sense of sight	When the child pays attention to the movement of the ball toward his body

TABLE 3: Continued.

No.	Activities	Target Stimulation	Description
		Sense of balance	When a child controls body balance to catch the ball
		Proprioceptive sense	when a child catches a ball
10.	Tukang gali  Description: Pour the rice into a large enough container Insert and hide the buttons into the rice Sit opposite the child Ask the child to feel the rice to find the button When you find it, ask your child to name the color "This is red."	Sense of sight	When a child looks for buttons in the rice
		Sense of touch	When a child touches the rice and distinguishes the shape of the buttons buried in the rice
11.	Apa yang aku rasakan?  Description: Parents consistently ask how their children feel before eating, after eating, before going to bed, and after waking up  If the child cannot explain it, parents can help the child to conclude it.	Sense of interoception	When the child recognizes his body condition with the help of parents, they ask questions about what the child is feeling and the child's response to what he is feeling.
12.	Kerangka ikan  Description:  a. Make a fish pattern as shown in the picture b. Sit opposite the child c. Ask the child to insert the cotton bud into the straw while counting.	Sense of sight	Focuses on inserting the cotton bud into the straw.
		Proprioceptive sense	When the child holds the cotton bud and inserts it.
		Controlling emotions	When the child tries to insert the cotton buds one by one until they are finished.
13.	Gerak hewan  Description:  a. Ask children to pay attention to their parents b. Give examples of animal walking movements while saying the name of the animal and the animal's sound Catwalk: crawling position with knees raised Frog jump: Jump from a squatting position with your hands touching the floor Buffalo carrying a cart: child rests on both hands to walk, parent lifts his legs and walks behind him (like a cart) Parents ask children to imitate them.	Sense of hearing	When children identify sounds when listening to animal sounds
		Sense of vestibular	When children control body balance, coordinate body movements to imitate animal movements.

TABLE 3: Continued.

	TABLE 3. Continued.							
No.	Activities	Target Stimulation	Description					
		Proprioceptive sense	When children use the muscle strength of their hands and feet and coordinate their body parts when imitating animal movements.					
14.	Memasak Bersama  Description:  a. First menu: Prepare ingredients to make fried onion, eggs, and coffee b. Invite children to accompany parents in cooking c. First, the parent slices the onion and asks the child to smell it. Then, the parent can sauté the onion and ask the child to smell the aroma of the sauteed onion again; explain to the child that after sauteing, the onion becomes more fragrant. d. After that, add the egg, which has been beaten and seasoned, then fry until cooked e. Second menu: Prepare warm water and coffee powder, then brew coffee f. Ask children to smell the aroma of coffee; parents can explain that the child is smelling coffee.	Sense of smell	Introduce children to new aromas, hone positive responses to smells around them, enrich and teach children to distinguish aromas					
15.	Ilmuwan rasa  Description:  a. Prepare some food: chocolate, strawberries or oranges and salty chips  b. Ask the child to taste the food individually and explain the taste, starting from sweet, sour, and salty  c. Let the child mix several foods.		When children taste various flavors of food					
16.	Dongeng Boneka  Description: Prepare hand puppets, 1 for parents and 1 for children Sit opposite the child Ask children to pay attention to their parents Place the hand puppet in the parent's hand and the child's hand Start a dialogue with the child, with questions about the child, such as: "Hello, what is your name?" what is your favorite color?" and so on	Sense of sight	When the child focuses on paying attention to the movements of the hand puppet					
		Sense of hearing	When the child focuses on listening to the doll's dialogue and responding to the dialogue					
		Social communication	When children speak as a form of response (interaction)					
17.	Panen buah  Description:  Fill the container with water, put the plastic fruit into the water  Ask the child to sit in front of a container filled with water place a basket nearby  Ask the child to hold the vegetable spoon and take the fruit in the container one by one using the vegetable spoon.  Then, add it to the basket provided  Parents can set an example and then ask children to follow	Sense of sight	When the child sees the colorful toy fruit, train the child's eye movements when moving the fruit to the container					

TABLE 3: Continued

No.	Activities	Target Stimulation	Description
		Sense of vestibular	When the child moves the fruit from the container to the basket
		Proprioceptive sense	When a child holds a ladle and uses an object when using it as a tool
18.	Rebun aroma  Description:  a. Prepare three small pots, soil, and gardening equipment  b. Prepare one piece each of ginger, galangal, and lemongrass along with the seeds  c. Prepare tools that can be used for crushing  d. Ask the child to crush the prepared ingredients one by one, then ask the child to smell the aroma  e. Parents can explain to their child the aroma they are smelling  f. After that, invite the child to plant the seeds that have been prepared, give the child the opportunity to fill the pot with soil, and place the seed, covering it with soil.  g. this until all three seeds are planted.	Sense of smell	When the child smells the aroma of ginger, galangal, and lemongrass.
		Sense of touch	When children touch and cultivate the land to grow crops
		Proprioceptive sense	When children pound ginger, galangal, and lemongrass and when children plant ginger, galangal, and lemongrass using soil media

## 3.2. Book Content Validation

The results of the quantitative expert judgment on each stimulation activity content in the stimulation guidebook for children with special needs are summarized in Table 4:

TABLE 4: Aiken's V Analysis.

Activities name	Target Stimulation	Score		V	Category	
		V1	V2	V3		
Pesona air	Sense of sight and ability to focus	3	3	3	0,67	Fairly valid
	Sense of touch	4	4	4	1	Very valid
	Proprioceptive sense	4	3	3	0,78	Fairly valid
Olahraga Bersama	Interoceptive senses	3	4	3	0,78	Fairly valid
	Proprioceptive sense	2	4	3	0,67	Fairly valid

TABLE 4: Continued.

Activities name	Target Stimulation		Sco	re	V	Category
Ayo merasakan	Sense of touch	4	4	4	1	Very valid
Sedotan warna	Sense of sight	3	4	3	0,78	Fairly valid
	Proprioceptive sense	3	2	4	0,67	Fairly valid
	Practice eye contact	3	4	3	0,78	Fairly valid
Mesin vakum	Sense of sight	3	4	4	0,89	Very valid
	Proprioceptive sense	3	4	4	0,89	Very valid
Ikuti irama	Sense of hearing	3	3	4	0,78	Fairly valid
	Train children's memory skills	3	4	3	0,78	Fairly valid
Kumpulkan harta karun	The sense of sight	3	3	4	0,78	Fairly valid
	Proprioceptive sense	3	4	3	0,78	Fairly valid
	Sense of touch	3	4	4	0,89	Very valid
	Controlling emotions	2	4	4	0,78	Fairly valid
Bermain ke taman	Sense of sight	3	4	3	0,78	Fairly valid
	Sense of touch	3	4	3	0,78	Fairly valid
	Sense of hearing	3	4	3	0,78	Fairly valid
	Sense of smell	3	4	3	0,78	Fairly valid
	Sense of taste	3	4	3	0,78	Fairly valid
	Physiologically	3	4	3	0,78	Fairly valid
	Courage	2	4	3	0,67	Fairly valid
	Social skills	4	4	3	0,89	Very valid
Lempar tangkap	Sense of sight	4	4	3	0,89	Very valid
	Sense of balance	4	4	4	1	Very valid
	Proprioceptive sense	4	4	3	0,89	Very valid
Tukang gali	Sense of sight	4	4	3	0,89	Very valid
	Sense of touch	4	4	3	0,89	Very valid
Apa yang aku rasakan?	Sense of interoception	3	4	3	0,78	Fairly valid
Kerangka ikan	Sense of sight	2	4	3	0,67	Fairly valid
	Proprioceptive sense	3	3	3	0,67	Fairly valid
	Controlling emotions	3	4	3	0,78	Fairly valid
Gerak hewan	Sense of hearing	3	4	3	0,78	Fairly valid
	Sense of vestibular	4	4	4	1	Very valid
	Proprioceptive sense	4	4	3	0,89	Very valid
Memasak Bersama	Sense of smell	3	4	3	0,78	Fairly valid
llmuwan rasa	The sense of taste	2	4	3	0,67	Fairly valid

TABLE 4: Continued.

Activities name	Target Stimulation		Sco	re	V	Category
Dongeng boneka	Sense of sight	2	4	3	0,67	Fairly valid
	Sense of hearing	3	4	3	0,78	Fairly valid
	Social communication	3	4	3	0,78	Fairly valid
Panen buah	Sense of sight	3	4	3	0,78	Fairly valid
	Sense of vestibular	3	4	3	0,78	Fairly valid
	Proprioceptive sense	3	3	3	0,67	Fairly valid
Kebun aroma	Sense of smell	3	4	3	0,78	Fairly valid
	Sense of touch	4	4	3	0,89	Very valid
	Proprioceptive sense	4	4	3	0,89	Very valid
Average					0,8	Very valid

Based on the validation results from 3 experts listed in the table above, the results showed that 48 stimulation target items were used as an assessment of their suitability for activities with stimulation targets, 33 items were obtained which were included in the reasonably valid category and 15 items which were included in the very valid category. The average Aiken's V coefficient is 0.8, which is very valid. However, even though the 18 activities in this book have received reasonably valid and very valid categories from the three experts, researchers will continue to revise the suggestions to make this book more suitable for use than before, especially for stimulation targets that get marks. Aiken's V coefficient is 0.6; revisions will be made according to expert advice.

Various suggestions given by experts related to stimulation targets, such as activities targeting the proprioceptive sense, received many suggestions for improvement. It would be better if the target were more focused on what part you want to achieve, such as in the vacuum machine activity; it should be focused on achieving the target to stimulate fine motor skills. Then, in collecting treasures, it is better to replace proprioceptive targets with fine and gross motor skills. It is better to replace the targets with fine and gross motor skills for fish skeleton activities. Furthermore, the target of courage in playing activities in the park is more appropriate if it is replaced with social skills. Then, in the fish skeleton activity, the target for the sense of sight is more appropriate if it is replaced with movement control, and a target is added to train children's visual-motor coordination. In puppet storytelling activities, the target sense of sight is more appropriate if it is replaced with visual coordination.

Apart from suggestions related to targets, the suggestions obtained are related to how to play or carry out activities, for example in the water charm activity, there are several suggestions; namely, you can add food colouring to the water so that the differences can be more precise, add a rough sponge and a soft sponge and children can Sit on the mat so that there is a change in playing position. Then, in joint sports activities, you can explain what sports and body movements are involved. Furthermore, in the fruit harvesting activity, instructions can be added for children who initially sit on a chair and can move to sit on a mat or vice versa.

Based on suggestions from experts, researchers have sorted and made revisions based on these suggestions. The validation results from experts that have been processed show that the stimulation guidebook for children with special needs is suitable for use by parents as a stimulation medium for children with special needs at home. It can also be seen that the three experts' assessments of all stimulation targets in each game activity have differences, namely between 2 and 4. Having different opinions from the three experts is very useful in this research. Because there are different points of view, the advice from experts will also be different, and the improvements made will become complete to improve this book as a whole.

#### 4. DISCUSSION

#### 4.1. Book Development

The activities in the stimulation guide book for children with special needs are designed to be play activities with a specific purpose in the game. Parents can choose activities that suit their child's needs when using it. There are 18 game activities: water charm, joint sports, let us feel, colored straws, vacuum machine, follow the rhythm, collect treasure, play in the park, throw catch, digger, what do I feel? Fish skeletons, animal movement, cooking together, taste scientist, doll fairy tale, fruit harvest, and aroma garden.

The charm of water has the benefit of training the sense of sight, ability to focus, sense of touch, and proprioceptive sense. The target for the sense of sight is when children observe what happens when a dry sponge absorbs water and a wet sponge releases water when squeezed. They also observe the movement of water from a container filled with water to an empty container. The target sense of touch is when the child touches the surface of the dry and wet sponge. The proprioceptive sense targets when the child

squeezes a wet sponge to move water. Joint sports activities aim to train the sense of interoception when children feel different temperatures, namely hot temperatures when sweating and cold temperatures when parents fan the child so that they can be aware of what their body is feeling; children also know what their body's response is to a situation, and they You will also know what to do if he starts sweating, and train your proprioceptive senses when your child is doing sports activities.

The Let's Feel game aims to train the sense of touch. When children touch several objects with different textures, they pay attention to the sensations of various touches. Next, the color straw game aims to train the sense of sight when the child takes the straw from the parent's hand and puts it into the bottle. Then, practice fine motor skills when the child pinches the piece of straw with his fingers and practice eye contact when the child follows the parent's instructions to see the piece of straw in front of the parent's eyes.

The vacuum machine activity trains the sense of sight when children follow parents' instructions to see pieces of straw in front of the parents' eyes and trains fine motor skills, especially the oral muscles, thus training the ability to eat. Follow-the-rhythm activities can train the child's sense of hearing when listening to parents' clapping and tapping and train memory skills when the child is asked to repeat the sounds of clapping and tapping. After revisions were made according to advice from experts, one stimulation target was added, namely training fine motor skills when children imitate clapping and tapping.

Next, treasures are collected to stimulate the sense of sight, namely training the child's visual perception and ability to focus when the child sorts objects mixed up in a large container. Apart from that, it also trains gross motor skills and fine motor skills when children pick twigs and leaves, trains the sense of touch when children feel the texture of pebbles, twigs, sticks, and leaves, and trains the sense of sight when children group objects, one by one according to their categories. Playing in the park trains the sense of sight by observing various inanimate and living objects with various shapes and colors. It trains the sense of touch by recognizing various textures of objects around when children get to know the various textures of objects around them. Training the sense of hearing when children identify sounds and sounds around them, training the sense of smell when children smell and respond to various aromas, and training the sense of taste through prepared food. It is helpful for children's physiology when

exposed to sunlight and breathing fresh air, training social skills when children explore the environment, and interacting or communicating with people around them.

The goal of throwing and catching activities is to train the child's sense of sight when paying attention to the movement of the ball towards his body, train the sense of balance when the child controls body balance to catch the ball and train the proprioceptive sense when the child catches the ball. The digger activity trains the child's sense of sight when looking for buttons in the rice and trains the sense of touch when the child feels the rice and distinguishes the shape of the buttons buried in the rice. In what activities do I feel? The stimulation target is the sense of interoception, namely when the child recognizes his body condition with the help of parents by asking questions about what the child is feeling and the child's response to what he is feeling.

Next, the fish skeleton activity trains children's ability to control their movements when children focus on inserting a cotton bud into a straw, trains the proprioceptive sense, namely when children hold a cotton bud and insert it, and trains children to control emotions, namely when children try to insert a cotton bud. one by one until finished. Then, the animal movement game trains the sense of hearing when children identify sounds when listening to animal sounds, trains the sense of balance when children control body balance, coordinates body movements to imitate animal movements, and trains the proprioceptive sense when children use the muscle strength of their hands and feet—and coordinating body parts when imitating animal movements.

The joint cooking activity is focused on training children's sense of smell by introducing children to new aromas, honing positive responses to surrounding odors, and enriching and teaching children to distinguish aromas. Next, the taste scientist game aims to stimulate the sense of taste when children taste various food flavors. The doll story activity aims to stimulate visual coordination when children focus on paying attention to the doll's movements, train their sense of hearing when they focus on listening to the doll's dialogue and responding to the dialogue, as well as improving social communication skills when children speak as a form of response (interaction).

The fruit harvest game stimulates the sense of sight when the child sees colorful toy fruit, trains the child's eye movements when moving the fruit to the container, trains the sense of balance when the child moves the fruit from the container to the basket, and trains the proprioceptive sense when the child holds the vegetable spoon and uses it—objects when using them as tools. The final activity, namely the aroma garden, aims to stimulate the sense of smell when children smell the aroma of ginger, galangal, and

lemongrass, train the sense of touch when children touch and cultivate the soil to plant crops and stimulate the proprioceptive sense when children pound ginger, galangal, and lemongrass and when children planting ginger, galangal, and lemongrass using soil media.

From the explanation of the benefits and objectives of stimulation in each activity above, it can be seen that the targets of stimulation are aimed at training sensory abilities, focus abilities, eye contact abilities, social abilities, social communication, memory abilities, controlling emotions, and physiology. Sensory abilities themselves have a vital role in children's development, and this has been proven by several studies, like research conducted by Yahya et al. (2015), which explains that through activities that train children's sensory abilities, they can help children carry out daily activities and influence the child's motor skills. The sensory system is closely related to children's movement or motor skills, which influence receptive and expressive skills. Stimulation is received sensory (receptively), namely in the back of the brain, and responded to motorically (expressively) by the front of the brain so that all movements that arise are the result of the interaction of several parts and systems in the body which are controlled by the brain.

Poor sensory and motor coordination is influenced by poor functioning of the sensory system. This situation will result in the child's slow response to a stimulus that does not align with his thoughts. This slow response is influenced by visual-motor and auditory perception, which in turn influences the development of cognition and behavior (23). Sensory development in children does not come from genetic influences but rather from how stimuli are received from their immediate environment, such as parents, family, or caregivers (24).

In children with special needs, sensory abilities cannot be integrated precisely like normal children; children with special needs will interpret information differently from typical children. This condition will impact the process of optimizing developmental abilities that should be achieved at a certain age (25). Therefore, stimulating or encouraging children, especially children with special needs, is necessary to optimize their development. Agusminto (26) explained that providing stimulation to children as early as possible is a very important external factor in determining children's future development. (26) also explained that optimizing children's development can be done by providing stimulation to children's sensory systems through general sensory systems such as

taste, movement, touch, vibration, temperature, and pain, as well as through special sensors, namely visual, auditory and kinesthetic.

The integration of sensory and motor abilities in children is also helpful in optimizing children's attention abilities, which include the ability to focus, eye contact, and social abilities. As is known, problems related to attention are often encountered in children with special needs, such as in children diagnosed with Attention Deficit/Hyperactivity Disorder (ADHD). Children with attention problems have difficulty understanding verbal instructions, obeying rules, and adapting to the environment. They also have difficulty processing information, understanding what they see and hear, differentiating the emotions they feel, and controlling them. An increase in children's attention abilities is in line with an increase in children's emotional development ((27). Thus, in the stimulation guide book for children with special needs prepared for this research, activities have been designed to teach children to process and understand instructions and obey rules, which helps optimize children's attention abilities.

#### 4.2. Book Content Validation

The validation process has shown that the stimulator guidebook for children with special needs is valid and can be used by parents as a stimulation medium for children with special needs. however, of course, this book still has shortcomings compared to books for children with special needs that have been published on the market. One example is a book entitled Education for Children with Special Needs (28). This book explains in detail and in-depth the nature of children with special needs; this is different from the book designed by the author, which only briefly discusses children with special needs. This is a weakness in this book, so its use must be accompanied by education by a psychologist or by parents finding out more about children with special needs through other reference sources.

Apart from that, compared with other books titled Play Therapy (29), the stimulator guidebook for children with special needs needs needs to be improved in the categorization section. In the Play Therapy book, some categories explain games appropriate for children from infant to toddler age and school age. So parents can easily adjust according to their child's age. The benefits and safety of the game can be guaranteed.

After discussing several disadvantages of the stimulant guidebook for children with special needs, we found that this book also has advantages, such as a more attractive

and practical design. The book's contents are not filled with writing, making it easier for parents to read it. The recommended activities are also easy, and the tools and materials are easy for parents to obtain. The playing checklist at the end of the page also reminds parents to provide stimulation regularly.

#### 5. CONCLUSION

This research concludes that the stimulant guidebook for children with special needs is suitable for parents to use as a stimulation medium for children with special needs. with 18 game activities, it is considered to be by the stimulation targets aimed at, namely sensory abilities, focus abilities, eye contact abilities, social abilities, children's memory abilities, ability to control emotions, and physiology. However, improvements to the book were made based on suggestions from expert judgment, such as suggestions regarding tools and materials, suggestions regarding more specific activity details, suggestions for explaining the stimulation objectives of each activity in more detail when carrying out which specific activity, and suggestions regarding alternative tools. More manageable for children with special needs, as well as revision of stimulated aspects of some activities. This was done to improve the book's content.

As for the benefits of this research, theoretically, it is hoped that it can become a source of reference for students or teachers to support them in the world of education. Meanwhile, it is hoped that parents can use the practical benefits of the stimulation guidebook for children with special needs as a stimulation medium for children with special needs at home. Teachers, therapists, or psychologists can also use it as a medium of stimulation and a reference for providing therapy to children with special needs.

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