



Design and development ritatoon learning media to supporting preschool children's social emotional and language development

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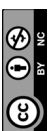
Abstract:

The purpose of this study is to develop a medium for learning ritatoon to support the social, emotional, and language development of preschool children. The method used in this research is research and development. The implementation of research and development uses the Borg and Gall model development procedure. The sample in this study was children aged 5-6 years. The data analysis technique is quantitative analysis in the form of a percentage used to percentage the validity of the ritatoon media and the paired sample t-test for the effectiveness test. The development product in the form of ritatoon learning media has gone through the process of validating learning designs, media experts, linguists, and early childhood social-emotional experts and obtaining score 88.88%, based on the eligibility criteria, the Ritatoon learning media can be said to be very valid or suitable for use. Furthermore, the results of the effectiveness test using paired sample t-test showed a sig value $< .001$, so it could be concluded that the ritatoon learning media was able to improve children's language and social-emotional development.

1. Introduction

Play an important role in the development of children aged early ie as a form of the learning process to know the environment (Hinske, Langheinrich, & Lampe, 2008; McCauley & Christiansen, 2019). Therefore, the curriculum children ages early in the design and focus on activities to play and interact with toys (Yelland, 1999). The relationship between play and learning is evidenced by researchers, practitioners, and parents. Especially integrating new technology into the learning environment brings several benefits for children (Plowman & Stephen, 2005). The purpose of applying the principle of play while learning for early childhood is to stimulate the child's brain in the long term so that their memory is always filled with activities that give a positive impression and of course be fun for children (Whitebread et al., n.d.). The purpose of playing is directed at developing the multiple intelligences of the child. The play also helps develop children's imagination, creativity, ability to solve problems, and improve social skills, and language skills of children (Mottweiler & Taylor, 2014). By using their imagination, they create a trust to play that allows children to have control over their world when they play (Alcock, Cullen, & St George, 2008). A person who plays with other children will create interactions that create new experiences for them (Brussoni et al., 2015).

Playing activities are usually carried out by children by taking simple actions either by using toys or without toys (Yilmaz, 2016). Playing without toys, for example, children pretending to behave like other people, playing house-houses, and games with rules such as playing hide and seek (Conner, Kelly-Vance, Ryalls, & Friehe, 2014). Playing can also be done by making use of constructive or creative toys, when children use certain objects or toys to create something new, for example, such as building a tower from block toys (Fung & Cheng, 2017).



Toys as learning media are the most valuable means of stimulating intelligence, senses, and emotions; and develop children's imagination and creativity, as well as support physical, spiritual and social development (Linebarger & Vaala, 2010). Learning media in the form of toys provides children's learning through games and therefore helps them to form concepts and understand objects and events in a better way (Aral, Gursoy, & Yasar, 2012). Toys also allow children to learn as they play because they are systematically designed to support children's cognitive, language and self-care skills while making a major contribution to their social-emotional and motor skills (Vitrup, 2009) as well as their television habits in general. Both parents and children reported that the children watched about 3.5 hours of television on the preceding day. However, when reporting about the amount, content, and context of the television exposure, there were big discrepancies between parents' and children's reports. In general, children reported being less aware of television rules and watching more age inappropriate programs. In general, parents reported more frequent use of restrictive mediation compared to active mediation. Lower socioeconomic status (SES). In this sense, educational materials are important in educational settings because they are visual, entertaining, attractive, and arouse children's desire to participate (Gagnona & Nagle, 2004).

The play has been considered an indicator of, and a mediator in, children's intellectual, language, and social development (Hurlock, 2002). Previous research has explored the effects of various environmental features on the play, such as physical space setting (Moore, Sugiyama, & O'Donnell, 2003), peer interaction (Gerrits, Goudena, & Van Aken, 2005) and adult intervention (Mashburn et al., 2008). Empirical evidence has also shown that more than 90% of play experiences in preschool involve toys used in groups that improve children's language and social development (Smith & Jeffrey, 2009).

One of the learning media developed to improve language and social development in early childhood is a ritatoon. Ritatoon learning media is the development of two-dimensional media into three-dimensional forms because teachers usually only use blackboards and pictures from books in the theme of vehicles (Sadi-man, 2012). Ritatoon learning media is a learning media for interactive activities in learning activities that are adapted to the situations and conditions that display images and writing according to the theme of the vehicle (Yafie, Samah, Mohamed, & Haqqi, 2020). Children can retell the contents of the images displayed through the medium of the ritatoon so that they can develop their vocabulary and speaking skills (Nana & Rivai, 2009). Also, the use of ritatoon in group learning encourages discussion and expresses opinions in turns to stimulate children's social attitudes. Learning media that are used in groups can improve social aspects and children's interactions. Ritatoon media also has advantages in channeling messages so that it can stimulate children's attention, interests, thoughts, and feelings in learning activities to achieve certain learning goals (Trianto, 2007).

Preschool children can develop their vocabulary and language skills while playing by using toys (Pungello, Iruka, Dotterer, Mills-Koonce, & Reznick, 2009). The use of games can support children's social-emotional development. The use of toys in groups allows children to learn how to work in a team, share, negotiate, listen to, and resolve conflicts (Camilli, Vargas, Ryan, & Barnett, 2010). Playing alone can also train children in making decisions, explore their imagination and creativity, and find new interests. Provide opportunities for children to socialize, communicate with peers. Educational play tools function to facilitate children to develop a harmonious and communicative relationship with the surrounding environment, for example with their friends (Walworth, 2009).

2. Literature Review

Children's Language Development

Language development at the age of 5-6 must be well stimulated because it functions as an intermediary tool in communicating which is useful for conveying and expressing ideas, opinions, and feelings. The language also functions as a tool to obtain information and expand children's thinking (Berk, 2002). At the age of 5-6 years, children can communicate or participate in conversations with their peers or with their parents (Tager-Flusberg et al., 2009). This proves that in language development, social skills can develop. Also, children's social abilities can affect children's language development, where children tend to more easily express their ideas, ideals, and hopes with others (McCauley & Christiansen, 2019).



With language, children will be able to express thoughts through simple language appropriately, communicate effectively, and arouse interest in exploration (Dunst, Raab, & Hamby, 2016)(b. In children aged 5-6 years, children's vocabulary reaches an average of 8,000 words and their development has reached the coordination of simple sentences to form three or more words. Central to social life, speech, and language development are the foundation for successful outcomes in the future (Hartman, Ratner, & Newman, 2017). This aspect of language development greatly influences socio-emotional development and other developments. Language can be used as a social tool, language is a way of interacting with other people (Berk, 2002).

Table 1 Language development of children aged 5-6 years.

Understanding Language	Express Language	Literacy
1. Understand several commands simultaneously 2. Repeating more complex sentences 3. Understand the rules in a game 4. Enjoy and appreciate the reading	1. Answer more complex questions 2. Communicate verbally and have the vocabulary 3. Compose simple sentences in a complete structure 4. Have more words to express ideas to others 5. Continuing some of the stories that have been heard 6. Shows understanding of the concepts in the storybook	1. Mention the familiar letter symbols 2. Recognizes the sound of the initial letters of the names of objects in the vicinity 3. Mention groups of pictures that have the same sound / initial letter. 4. Understand the relationship between sounds and letter shapes 5. Read your own name 6. Write your own name 7. Understand the meaning of words in the story

Developments Social-Emotional Child

Social development is the result of an increase in behavior that is in line with social demands. Children will carry out a role in social life, and for that children need to learn in behaving in ways that can be accepted by the community and can develop social attitudes and behaviors with other individuals and also social activities that occur in the community (Hurlock, 2002). For this reason, children's social abilities need to be developed, and adults need to play a role in this matter, parents or teachers who intentionally introduce the prevailing norms in everyday life (Camilli et al., 2010).

Social-emotional skills also play an important role in helping children interact well with others. The aspect of socio-emotional development is intended as a vehicle for fostering children to control their emotions naturally and to interact well with each other, as well as with adults, and to help themselves in terms of life skills (Wortham, 1994). Also, traditions and social attitudes also teach us to sort out which kinds of emotions can be shown and talked about and which ones cannot (Howes, Phillips, & Whitebook, 1992). Early socio-emotional development arises from children (ages 0-5 years) to form relationships, experience, organize, and express emotions in social and culturally appropriate ways and explore the environment and learn. Children from birth begin to explore their world. At each early stage of development, children look around and try to understand their social environment (Barbu, Cabanes, & le Maner-Idrissi, 2011).

Table 2 Children's Social-Emotional Development

Self-awareness	A sense of responsibility for oneself and others	Prosocial Behavior
1. Showing the ability to adapt to situations 2. cultivate trust in the right adult 3. self-control appropriately	1. Know their rights 2. Obey the class rules 3. Organize yourself 4. Responsible for their behavior for their own good	1. Share with others 2. Respect the rights/opinions/work of others 3. Be cooperative with friends 4. Show a tolerant attitude 5. Expressing emotions following existing conditions



Ritatoon Learning Media

Ritatoon has the meaning, namely as a visual presentation of messages through line symbols into a series of pictures (picture series) which at the time of use used standards. The standard of the ritatoon is a board with stripes on which the hole is for placing the image which is upheld. The Ritatoon consists of serial images that are individually placed on a card or plywood as software, and the standard of the board as hardware. Called ritatoon, which stands for the word story being performed (toon) (Kustiawan, 2016). The use of the ritatoon learning media, combined with the flannel board that is displayed standing at the back of the ritatoon, and equipped with items picture cards and vehicle theme word cards stored in the card box. Letter cards, word cards, and vehicle picture cards are taken in turn by the child from the available boxes and then put on the flannel board according to the child's choice. Play it by arranging letters into words according to the picture attached at the top. This ritatoon learning media is used in a series of learning activities that further develop children's social-emotional development and language (Arsyad, 2011).

Ritatoon is a three-dimensional media with two sections of media devices. Sumanto (2010) says that Ritatoon consists of two parts media devices, namely: (1) basic boxes with there trenches hole where to place framed series drawings; and (2) sheet images/photos are placed or inserted in Ritatoon basic box sections. Ritatoon basic box consists of wooden boards by rows of holes to put picture frame series arranged in parallel and sequence. This basic box consists of five or more photos/images series depending on the material to achieve the learning objectives. Ritatoon has the advantages of (1) a simple way of making; (2) easy-to-access materials; (3) easy way to save; (4) unique and sequential placement; and (5) cultivate students' curiosity about the drawings hereinafter (Sumanto, 2010). Ritatoon can be made by available materials in the environment. Additionally, the use of Ritatoon media in teaching and learning activities does not require specific skills. Besides that, Ritatoon media has several disadvantages: (1) it tends to be used in the classical style; and (2) it has a large size and weight. Early learning is very critical in children's language development in both receptive and productive linguistic skills. Language acquisition through exposure is what is occurring in this stage of human life, where the language seeps into the child's mind unconsciously (Önder, 2018).

3. Research Method

The method used in this research is research and development. The implementation of research and development used the Borg and Gall (1984) model development procedure which consisted of ten steps, however, the researcher made modifications to seven steps, while the eighth, nine, and ten steps were not implemented. The seven steps include (1) conducting research and gathering information (literature review, classroom observations, preparation of reports on the subject), (2) planning (defining skills, formulating objectives, determining the sequence of teaching, (3) developing product forms. the initial ritatoon to be tested, (4) conducting small group trials at the beginning of the preschool (4-5 years old) (5) revising the initial product (6) conducting field tests or main effectiveness with 30 children, (7) revising operational products The data analysis technique is quantitative analysis in the form of a percentage used to percentage the validity of the ritatoon media and the paired sample t-test for effectiveness testing.

4. Results and Discussion

Ritatoon Learning Media Product Development Results (Yafie, Giavarini, & Maulidia, 2020)

The product developed in this research and development is the ritatoon learning media which can develop the social, emotional, and language development of children aged 5-6 years. The product developed is a three-dimensional learning media in the form of an imitation model of television measuring 70 cm long, 60 cm wide, 20 cm thick, which contains pictures of vehicles that can be played as children's play tools in art learning. On the outside on the back, there is a flannel board for sticking letter cards, word cards, and picture cards about vehicles. This ritatoon learning media is only used on the theme of vehicles with sub-themes of vehicle types, namely land vehicles, water vehicles, and air vehicles. This ritatoon learning media is made as attractive as possible.



The use of ritatoon learning media in language learning at the age of 5-6 years, namely in the initial activities: 1) The teacher and the children pray, then give greetings, 2) The teacher makes the presence of the child, 3) The teacher asks questions and answers with children about the theme and sub-theme of the day 4) The teacher prepares the ritatoon media to be used in language learning. Furthermore, in the core activities: 1) The teacher introduces the ritatoon learning media, 2) The child is allowed to observe and ask questions about the content in the ritatoon media, 3) The teacher first gives an example to the child about the steps to play using a ritatoon in social-emotional and language learning 4) The child plays a game using the media of the ritatoon by taking turns turning the lever/image player and attaching picture cards and word cards about vehicles; 5) Children pay attention to the teacher's demonstration of how to make a collage picture of a train shape; 6) children discuss and tell stories about the pictures that have been made; 7) The child individually does the task of making a train collage. In the closing activities: 1) Reflection on activities that have been carried out in one day, 2) Moral messages, 3) The teacher and children sing a song entitled "train" vehicle according to the sub-theme while clapping their hands, 4) Pray, greetings, and return. 5) Children pay attention to the teacher's demonstration of how to make a collage picture of a train shape; 6) children discuss and tell stories about the pictures that have been made; 7) The child individually does the task of making a train collage. In the closing activities: 1) Reflection on activities that have been carried out in one day, 2) Moral messages, 3) The teacher and children sing a song entitled "train" vehicles according to the sub-theme while clapping their hands, 4) Pray, greetings, and return.



Figure 1. Children's Activities Using Ritatoon's Learning Media in Drawing Collages

Expert Assessment Results (Expert Validation)

The results of the reviews from experts are used as the basis for making initial revisions to the product design of the developed Ritatoon learning media. The review was conducted by 3 experts, namely one early childhood learning expert, one early childhood learning media expert, and one early childhood language and social-emotional expert. Experts review aims to determine the suitability of the products developed with the needs on the ground. The results of development research based on quantitative data analysis obtained a percentage of 85.41% from instructional design experts, and 91.66% from learning media experts, and 89.58%



from early childhood linguists and social-emotional experts.with an overall result of 88.88%. It can be said that the ritatoon learning media is in a very valid category (suitable for use) to develop the social, emotional, and language development of children aged 5-6 years. In general, the evaluation data according to the experts obtained the following results:

Table 3 Overall Expert Evaluation Result

No.	Evaluation Expert	Percentage
1.	Learning Design Expert	85,41%
2.	Media Expert	91,66%
3.	Early Childhood Language and Emotional Language Expert	89,58%
	Rate-rate	88,88%

From the overall data from the evaluation of the experts, an average percentage of 88.88% was obtained. Based on the eligibility criteria, the ritatoon learning media could be said to be very valid or suitable for use. Ritatoon media effectiveness test was conducted to test whether the media was effective in improving children's language development and emotional problems. Furthermore, the results of the effectiveness test can be seen in the following table 4:

Table 4 Language Development Test Result

Dimension	Pre-test	Post-test	Sig	t count	Explanation
Understanding Language	2.15	3.44	.001	8.711	Significant
Express Language	2.29	3.56	.001	7.932	Significant
Literacy	2.21	3.12	.001	4.220	Significant

Based on the results of the paired sample t-test language development, it can be seen that the t-count value in the dimension of understanding language has a value of 8.711 and the significance value is $< .001$, so it can be concluded that there is a significant difference between before and after the use of ritatoon media. In the dimension of expressing language, it has a value of 7.932 and the significance value is $< .001$, so it can be concluded that there is a significant difference between before and after the use of ritatoon media. In the literacy dimension, it has at the value of 4.220 and a significance value $< .001$, so it can be concluded that there is a significant difference between before and after the use of ritatoon media.

Table 5 social-emotional development test result

Dimension	Pre-test	Post-test	Sig	t count	Explanation
Self-awareness	2.44	3.61	.001	5.755	Significant
A sense of responsibility for oneself and others	2.56	3.76	.001	6.922	Significant
Pro-social Behaviour	2.42	3.54	.001	4.768	Significant

Based on the results of the paired sample t-test for social-emotional development, it can be seen that the t-count value in the dimension of self-awareness has a value of 5.755 and the significance value is $< .001$, so it can be concluded that there is a significant difference between before and after the use of ritatoon media. In the dimension of sense of responsibility for oneself and others, it has at the value of 6.922 and a significance value $< .001$, so it can be concluded that there is a significant difference between before and after the use of ritatoon media. In the dimensions of prosocial behavior has a value of t count 4.768 and the significance value is $< .001$, so it can be concluded that there is a significant difference between before and after the use of ritatoon media.



5. Discussion

Playing is a child's method of learning and communicating children in knowing the environment and absorbing information (Vogt, Hauser, Stebler, Rechsteiner, & Urech, 2018). In this activity, they become the main actors, they fulfill their needs, realize their abilities, improve their skills, make decisions and act independently – children become released from the inferiority complex about adults, and experience their true value (Hurlock, 2002). Aspects of child development ranging from cognitive, language, social-emotional, and moral improve well if supported by good learning and play environment (Anderson-McNamee, 2010).

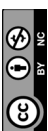
Learning activities by utilizing toys ritatoon can improve children's language development because it provides various information in the form of vocabulary and stories to stimulate children's language skills (Cheng & Johnson, 2010). Learning media has several important functions in learning activities such as motivating children's interest, presenting information, directing children's attention, and clarifying message delivery (Moller, 2015). In the implementation of the learning process, learning media is very helpful in the process of delivering material or information to children in achieving learning objectives and making it easier for children to understand and remember what the teacher says (Wooldridge & Shapka, 2012). In this case, storytelling can be done with simple learning media with three-dimensional devices, one of which is the rhythmic image media. Ritatoon is a series of pictures framed in such a way that the stages shown in the pictures can be presented as an event process. Ritatoon media can be presented with material that can be adjusted at any time with a fixed frame so that it is more economical and can be used at all grade levels (Ozanne & Ozanne, 2011). The combination of text and images in the ritatoon media can increase attractiveness and can facilitate understanding of the information presented in two formats, namely verbal and visual. The ritatoon media device can also be used for other activities besides telling stories so that the use of the ritatoon media is adjusted to the learning objectives. Storytelling using ritatoon image media can make children interactive to interact with the teacher. With this interaction, the activity will not be monotonous and will make it easier for children to understand the contents of the story (Trawick-Smith, Russell, & Swaminathan, 2011).

Improved language skills of children seen when teachers want to tell you, children already understand what - what should be done is to sit quietly listening to the teacher, then as a teacher asking questions, the child answered correctly without imitating other children, when asked to tell back, children courage to move forward to retelling coherently and using the right words (Weisberg, Zosh, Hirsh-Pasek, & Golinkoff, 2013). The retelling strategy is the child's activity after understanding the story and then retelling the story. From the results of observations, it can be seen that listening helps children to imagine what they are hearing so that when the teacher tells the story, the child asks about the story related to the child's daily life (Mendelsohn et al., 2010). One of the benefits of stories is that they can channel children's imaginations. When the child listens to the story, the child's imagination is stimulated. Children will imagine the stories they hear through imagination. The imagination that children build when listening to stories has a positive effect (Dore, Zosh, Hirsh-Pasek, & Golinkoff, 2017).

Playing activities that are supported by toys such as ritatoon which are used in group activities can certainly improve children's social-emotional development (Bretherton, 2014). In these activities, children will interact, communicate, get to know other people's work, be cooperative with friends, and express emotions by existing conditions (Case-Smith, 2013). Playing activities using rhythmic media can provide children's experiences to understand each other's characteristics and try to interact well. When learning using ritatoon media, children will hone their memory, imagination, and mutual respect. This is a positive impact of using toys in improving children's social-emotional development (Gulden, 2016).

6. Conclusion

The development product in the form of ritatoon learning media has gone through the process of validating the learning design, media experts, language experts, and early childhood social-emotional and obtained a score of 88.88%, based on the eligibility criteria, the ritatoon learning media can be said to be very valid or suitable for use. Furthermore, the results of the effectiveness test using paired sample t-test showed a sig value < .001, so it could be concluded that the ritatoon learning media was able to improve children's language and social-emotional development.



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