

Game Lempar Gelang for Problems Know the Concept of Numbers and Emotional Regulation on Child B Group Kindergarten

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Abstract—One of the best strategies for stimulating children's cognitive and emotional development is to play. Playing with children also learns to recognize itself and the world around it by exploring and examining some of the things that are heard, felt and seen. In developing cognitive and emotional needs of a fun activity for children. Playing activities are activities that children love, because playing children can express themselves by exploring his knowledge. Therefore, it is inspired to create an exciting game for children that is a game "Lempar Gelang" that can be used to stimulate the ability to recognize the concept of number and child regulation. The learning objective is to use a game "Lempar Gelang": 1) the child can name the symbols 1-20 in sequence, count the number symbols, and match the number symbols with the object, 2) the child dare to appear in public, and the child can control his or her own emotions fairly. The method used in using game "Lempar Gelang" that children participate directly in learning activities and early observation as a basis to determine the early ability of children about the ability to recognize the concept of numbers and emotional regulation. The results of activities undertaken to increase the knowledge of teachers to innovate to make learning games and to train the ability to recognize the concept of numbers and emotional regulation in children.

Keywords—*concept of number; emotional regulation; lempar gelang game*

I. INTRODUCTION

[1] The opinion of John Amos Comenius suggests that starting a child's birth guidance should already begin. Education runs naturally with regard to maturation and gives hope to the child to use all his senses. The sensory knowledge experienced by early childhood is the foundation of all learning.

One theory is that every Montessori children have their own expertise to practice in accordance within phase of ripeness and children practice in a way that fruit with adults. In the Montessori theory also explains his purpose as an introduction to the principle of having the buyer, so that children can enter higher education gap with strong preparation. Every child has the ability and the character of the fruit, therefore children worth practicing over his own not pushed by anyone else.

[2] Concerning curriculum 2013 Early Childhood Education has been explained that the child development achievement unit (STPPA) of each child is different according to his age. In accordance with Pestalozzi's theory, there is a sequence to achieve child development. In Permendikbud Number 137 Year 2014 which explains about the National Standard of Early Childhood is also mentioned each - each of the developmental areas that must be developed in early childhood, the scope of such developments, religious and moral values, rough and smooth motor physical, cognitive, language, social-emotional and art.

Early childhood education is a form of education or guidance that focuses on basic maturation toward physical growth and development, such as gross and subtle motor, intelligence development such as thinking power, creativity, emotional intelligence, spiritual intelligence, emotional social development such as behavioral attitudes and religion, language development and communication in accordance with the stages that occur in children. In early childhood education provides a way to stimulate, nurture, guide, and provide learning activities that create abilities and skills in children. early childhood education has the types of institutions that are formal types of institutions, types of informal institutions, and types of non-formal institutions, education is held at the time before basic education.

Early age is an important and profound early stage in the range of human growth and development. The various important periods in the child mark the early stages. At an early age, all potential in the child will develop quickly. Some concepts occur in early childhood development that is the period of exploration, the sensitive period, the period of identification/imitation, playing period, and the period of rebellion stage 1. The idea is clarified by a neurologist who states that at birth the brain has 100 to 200 billion cells The optimal nerve developed optimally.

Perceived self-efficacy exerts its influence through four major processes [3]. They include cognitive, motivational, affective, and selection processes. There are three different levels at which perceived self-efficacy operates as an important contributor to academic development. Students' beliefs in their efficacy to regulate their own learning and to master academic

activities determine their aspirations, level of motivation, and academic accomplishments. Teachers' beliefs in their personal efficacy to motivate and promote learning affect the types of learning environments they create and the level of academic progress their students achieve. Cognitive development is an internal method that exists within the center of the neural structure at the time the individual is thinking. Cognitive development develops according to stages, along with the physical development and nerves that exist at the center of the neural structure. Cognitive development must be developed because humans have the tools of thinking used to solve problems, expandability, facilitate action and do something. [4] Cognitive development is very important to be developed for children when learning in Kindergarten. [4] That the ability of this mind to determine how quickly a problem can be faced. Based on it states that the child's cognitive development needs to be developed so that later children can solve the problems faced well.

Early childhood cognitive development is fantasy, creative, and free. Imagination in children works all the time and the reach of the world will continue to grow, this means the child can begin to describe the situation in the surrounding environment. The child always wants to know the answers to the questions that arise, the child trying to manipulate the material to satisfy his curiosity. The ability to recognize the concept of numbers at an early age is often experienced when children play and have daily activities. Early children find and apply the concept of mathematics naturally, because almost every day children do activities related to the concept of numbers such as, recognize numbers, mention numbers, count objects, match numbers with the symbol number. Through arithmetic, the child can know the time, create the shape of an object according to the concept of numbers.

In fact, often the cognitive development of children is still less stimulated. Based on the results of observations and interviews on seven kindergartens in cluster V Kedungwaru District Tulungagung District in the process of learning about cognitive abilities, still using the demonstration methods of teachers, media usage and learning resources at institutions in group V felt monotonous by researchers, monotonous so that inhibits in learning activities. Children become bored easily, lack concentration, and do not pay attention to the teacher. This causes the child cannot fully understand the concept of numbers optimally. Therefore researchers have other alternatives to further improve the ability to recognize the concept of numbers using an interesting game.

[5] The emerging field of emotion regulation studies how individuals influence which emotions they have, when they have them, and how they experience and express them. This review takes an evolutionary perspective and characterizes emotion in terms of response tendencies. Emotion regulation is defined and distinguished from coping, mood regulation, defense, and affect regulation. Social and emotional abilities are two different aspects, but they affect each other. Parents and teachers contribute to developing emotional-social behaviors in children by providing behavioral guidance and instilling attitudes through good habits. The emotional social capability of the aud is now progressing rapidly.

[5] Process model of emotion regulation, strategies that act early in the emotion-generative process should have a different profile of consequences than strategies that act later on. Emotional development is very important for everyone to have. Someone who has an emotional development will be easier in coping with his emotions, will be better able to muffle his temper, when angry children are able to express to others in a natural way, when sad children will not use his sadness to disturb others and when happy children - the child does not scream or throw objects. [4] The meaning of emotion is the feeling or mind of a person, in the form of mind, mental state, and physical emergence or manifestation into the form or symptoms such as anxiety, fear, gloom, envy, anger, jealousy, etc. Emotions have the function to achieve a fulfillment, satisfaction, and self-protection or personal well-being, when circumstances are not comfortable with the environment. [6] Individuals differ in their use of emotion regulation strategies such as urgent and oppression, and individual differences have implications for effect, welfare, and social relationships. Emotional regulation is the capacity to adjust and control the emotions that arise at the right intensity to achieve the goal.

Reality in the field based on observations and interviews of researchers in seven kindergartens in cluster V Kecamatan Kedungwaru Tulungagung regency, found that learning related to emotion of children still use method of giving duty and lack of facility child to express emotion freely, so that childless able to control emotion in doing some activities such as lack of patience await the turn, do not want to respect others or appreciate the activities provided by the teacher. One of the factors causing low emotional regulation indications, namely media and learning resources that have not supported children to be able to control emotions well in everyday life. Habits of children in learning followed are still using LKA (Child Works Sheet), and media that less support child's self-confidence is considered too monotonous by researchers. Therefore researchers take the initiative to provide an interesting game and can develop emotional regulation in early childhood.

[7] Proposes an integrative conceptualization of emotion regulation as involving not just the modulation of emotional arousal, but also the awareness, understanding, and acceptance of emotions, and the ability to act in desired ways regardless of emotional state. Elga [1] argues that the child's active role is very important in the learning process. Learning based on the interests and abilities of children will encourage children to actively explore the environment. Children will explore with real objects that are close to the child's life. Kerry Jones [1] says that gives one important way or trick for children's learning, that is play.

[8]Recent research indicates that emotionality, emotion information processing, emotion knowledge, and discrete emotion experiences may influence and interact with emotion utilization, that is, the effective use of the inherently adaptive and motivational functions of emotions. Strategies individuals learn for emotion modulation and emotion utilization become stabilized in emerging affective-cognitive structures or emotion schemas. In these emotion schemas, the feeling/motivational component of emotion and perceptual and cognitive processes interact dynamically and continually. The concepts and techniques that promote emotion knowledge,

emotion regulation, and emotion utilization have proved effective in promoting favorable behavioral outcomes in both emotion-based and cognitive-behavioral interventions.

The world of children can be said as a world of play, in his life most of the time spent playing. According Wiyani and Barnawi (2012) play can be used as a medium that can improve the skills and abilities of children. Playing can be interpreted as an activity done by using the tool or not using tools that generate understanding, provide fun, provide information, and can develop the imagination of children. [8] VE-based spatial training is effective for children with complex disabilities, particularly when combined with training that remediates cognitive weaknesses.

Given the importance of play activities for early childhood, the development of child intelligence is more appropriate and appropriate when using play activities, including cognitive development and emotional development in children. The process based on the biological mechanisms of the development of the nervous system is a genetic process of cognitive development, as Piaget puts it. The mental strength of each child will be different, different age will be different also his thinking power. Components that make a person become smart using emotions, is an emotional development by [9]. Emotional intelligence demands a person to develop his emotional abilities.

In developing the cognitive abilities and emotional abilities of children, educators use a guide to provide appropriate educational stimulation for children according to their needs and age. [10] Intended for children of group B aged 5 to 6 years, about the scope of cognitive development in accordance with STPPA (Standard Level Achievement of Child Development) is a symbolic thinking with indicators developed, among others, call the symbols of numbers 1 to 20, use the numeric symbol to calculate, match numbers with number symbols. Based on this, it can be concluded that the children of group B in the scope of cognitive development, children can develop the ability of the concept of numbers. Meanwhile, according to Permendikbud no. 137 year 2014, about the scope of emotional social development in accordance with STPPA (Standard Level Achievement of Child Development) is self-awareness with the developed indicator that is controlling emotions.

One of the best strategies for stimulating children's cognitive and emotional development is to play. Playing with children also learns to recognize itself and the world around it by exploring and examining some of the things that are heard, felt and seen. Children will easily absorb learning if done with pleasure and unencumbered in learning. In developing cognitive and emotional needs of a fun activity for children. Play activities allow children to test their bodies, see how well their limbs function. Playing activities are activities that children love, because by playing children can express themselves by exploring his knowledge.

Based on the above explanation, then some alternative problem solving that is used are: (1) using play method, by playing without having to be forced to understand something, (2) in learning by using interesting media will increase

enthusiasm of children to follow learning, (3) learning must be active, creative, effective, and fun for children and teachers.

The type of play in the game is of course various, but the game contains elements of body movement and recognize the concept of numbers, such as throwing, calculating and practicing the concentration or thinking of children and can be done outside or indoors, invites children to be more able to control emotions and recognize the concept of numbers is a game of throwing bracelets according to the characteristics of the children of group B. From the description above, it can be concluded that Game throwing bracelet is one game that trains the basic motion of children, because in this game contains body movements, such as throwing the bracelet on target so that train concentration and control children's emotions can be excluded. The child can also name numbers, calculate numbers and search for objects in accordance with the right number of targets thrown on a bracelet. Children will feel happy and motivated to develop cognitive and emotional because it is done in a fun way.

II. METHOD

First, Research on the influence of the game lempar gelang to the ability to recognize the concept of numbers and emotional regulation in the children's group B Kindergarten Kecamatan Kedungwaru Tulungagung regency. The approach used in this research is quantitative approach. This research uses the experimental method with the control group, done systematically, logically and thoroughly by controlling the condition to know whether or not the result of something introduced in the research sample. The research used in this study is descriptive quantitative with the aim of seeing the effect of the game lempar gelang against the ability of the concept of numbers and emotional regulation in the children of the B group of kindergartens.

This research uses experimental research with quasi-experimental design (quasi-experiment design) type nonequivalent control group design. The population in this study is cluster V Kecamatan Kedungwaru with total of 249 students. While the sample in this study is the student group B TK dharma female Ketanon with the number of students 45 and students B group TK dharma female Boro amounted to 30 students. Each kindergarten is divided into 2 classes namely experimental class and control class. The scale used in this study is the rating scale, where there is a scale of 1-4 written with the sign BSB, BSH, MB, BB sign to indicate the level of child development achievement as a result of teacher observation.

This research uses data analysis technique with ANOVA and MANOVA at significance level = 0,05 by using SPSS 22 For Windows program. To test the first hypothesis that the game throw bracelet effect on the ability to recognize the concept of numbers, the second hypothesis that the game throwing bracelets affect the emotional regulation, and the third hypothesis that the game lempar gelang effect on the ability to recognize the concept of numbers and emotional regulation.

III. RESULT AND DISCUSSION

Validation of the game Lempar Gelang is arranged into aspects that want to be measured with based on certain theory. Furthermore, the game Lempar gelang validation instrument will be brought to the experts to validate the game Lempar Gelang. At game Lempar Gelang validation attached RPPM, RPPH, research instrument and how to play using the game Lempar Gelang. Then the validation of research instruments to be used.

IV. CONCLUSION

Based on the results of research and discussion about the game Lempar Gelang includes one of the game's learning that is used as a means to achieve a goal that can facilitate the cognitive development of children with regard to the ability to know the concept of numbers and social-emotional developments relating to the regulation of emotions. Therefore, it can be inferred that, there is the influence of the game Lempar Gelang on your ability to know the concept of numbers and regulation of emotions in Group b.

REFERENCES

- [1] A. Yus, Model pendidikan anak usia dini: Kencana, 2011.
- [2] Permendikbud Nomor 146 Tahun 2014
- [3] A. Bandura, "Perceived self-efficacy in cognitive development and functioning," *Educational psychologist*, vol. 28, pp. 117-148, 1993.
- [4] A. Susanto, *Perkembangan anak usia dini: Pengantar dari berbagai aspeknya*: Kencana, 2011.
- [5] J. J. Gross, "The emerging field of emotion regulation: an integrative review," *Review of general psychology*, vol. 2, p. 271, 1998.
- [6] J. J. Gross and O. P. John, "Individual differences in two emotion regulation processes: implications for affect, relationships, and well-being," *Journal of personality and social psychology*, vol. 85, p. 348, 2003.
- [7] K. L. Gratz and L. Roemer, "Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale," *Journal of psychopathology and behavioral assessment*, vol. 26, pp. 41-54, 2004.
- [8] D. Wästerfors and K. Hansson, "Taking ownership of gaming and disability," *Journal of Youth Studies*, vol. 20, pp. 1143-1160, 2017.
- [9] A. Tridhonanto, "Melejitkan Kecerdasan Emosi (EQ) Buah Hati," Jakarta: Elexmedia Komputindo, 2009.
- [10] Permendikbud nomor 137 tahun 2014