

## **DEVELOPING ACTIVITY, MOTIVATION AND COGNITIVE DEVELOPMENT THROUGH MAMA PAPA MODEL IN EARLYCHILDHOOD**

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### **Abstract**

The problem of this research is the low activity, motivation and cognitive of children in recognizing number symbol. The purpose of the study was to describe activity, motivation and cognitive development through the Make a Match model, Picture and Picture model, and the Flannel Board media. The type of research is classroom action with four meetings. The research subject was group A with a total of 5 children, there are 3 girls and 2 boys. The result showed that the teacher's activity at the fourth meeting with a very good category with a score of 26. In the first meeting children's activity with a percentage of 40% in the category of a small number of active children until the fourth meeting with a percentage of 100% in the category of all active children. The motivation of children in the first meeting with a percentage of 40% in the less motivated category to the fourth meeting with a percentage of 100% in the highly motivated category. The result of cognitive development from the first meeting with a percentage of 20% to the fourth meeting with a percentage of 100% or 5 children who successfully developed in the BSH category and were very active. It is suggested that the MAMA PAPA model can increase children's activity, motivation and cognitive recognizing of number symbol.

**Keywords: Cognitive, Number Symbol, Make a Match, Picture and Picture, Flannel Board Media**

### **INTRODUCTION**

The current globalization which is full of competition and challenges requires strength, skill and abilities for leader, educational experts. Human or individual must be creative and innovative in developing a learning method as a solution in solving problems in the teaching and learning process, to improve the quality of learning. In this case, a teacher must implement learning models and methods.

In society 5.0, the quality of a teacher is very much determined by innovative and dynamic thinking in the teaching process, based on this an educator can apply models and media to improve the quality of learning Director of Hafects (Highly Functioning Education Consulting Services) (Alimuiddin, 2020).

Early childhood education is the initial foundation for obtaining appropriate and brilliant education to be given

continuous stimulus both in terms of skills, the character in the form of religious and moral values, cognitive, social emotional, language, physical motor and art (Fadillah,2014). One aspect that needs to be developed in early childhood is cognitive development. Cognitive development is a development related to the ability to reason and imagine. Development is developed through learning while playing, playing can grow the level of satisfaction from moving activity and skills (Veronica, 2018).

The introduction of a mathematical concept is introduced to children from the age of 3-5 years. Learning mathematic in kindergarten age children with activity in the form of introduction through playing activity, trying, analyzing, doing, experimenting, projects, and activity that attract children's attention in a fun context (Suriansyah & Aslamiah, 2011).

Children are enthusiastic, the introduction of number symbol can be done with learning activity that make children active, creative and children become happy and challenged to learn. Therefore, a teacher must play a role in the process of children's learning activity that are while playing (Daryanto & Rachmawati, 2015).

Based on the explanation above, it can be concluded that the ability to recognize number symbol is a very important ability to be developed and honed because it is a basic mathematical ability for a child. Therefore, a teacher must be wise and shrewd in choosing learning models that can create a learning atmosphere that hones children's creativity and reasoning in a fun way.

In fact, in group A PAUD Aisyiyah Busthanul Athfal 6 Banjarmasin showed that children's activity in recognizing number symbol was still low, this was because during learning the child's ability to pronounce numbers was still wrong and not systematic or sequential, for example when children pointed to numbers that were still reversed between numbers 6 and 9. This causes some children to still need to be honed and guided in terms of their ability to symbolize random numbers.

The cause of this problem. The learning that is applied by the teacher is only in the form of a student worksheet where the teacher is only limited to introducing numbers and mentioning them but does not clearly show how the symbol of the number is. Learning that has not been effective and less interesting is due to the absence of media and activity are only centered on the teacher so that children's activity is less active when learning. This causes low activity, the motivation that makes children bored easily, and lacks focus.

Based on those problem, if they are not immediately addressed and left alone, the indicators of the level of success and achievement of children's cognitive development in recognizing number symbol will not develop optimally and will have a

major influence on the process of learning readiness in the future. With this problem, the researcher tries to make an effective, interesting and fun learning design or plan in the process of recognizing number symbol through a combination of the MAMA PAPA model (Make a Match, Picture and picture, and Flannel Board).

Researcher are interested in taking model with the word MAMA PAPA because here the role of parents as the main environment for children's lives. Parents play an important role in exploring the potential and character that exists in children. Supported by Hasanah (2017) parental involvement is the main aspect that interacts directly with children. The good and bad qualities of an educational institution can be seen from its relationship with parents.

Make a Match model is believed to be able to increase children's activity in recognizing number symbol. The more children's activity increase, the children will be more motivated to be active in the learning process (Rahyuni, S. A. P., Agung, A. A. G., & Suarni, N. K., 2014). This is in line with the research conducted by Saputri which showed that the Make a Match model can improve children's ability to recognize number symbol by learning the concept of play because playing is a child's daily nature (Saputri, 2016).

Picture and Picture model is the main model which has the advantage of being able to give children the spirit of learning, understand the meaning of the concept of learning, sequential and structured learning so that it can overcome the problems of children whose learning is random so that it is believed that children can recognize and sequence number symbol correctly. With this model, it can increase learning motivation which is marked by the enthusiasm of children in learning (Untari & Ainin, 2017). The result Purwanti, R., & Suhaimi, S (2020) found that the picture and picture model can improve child development.

Furthermore, flannel board media is a supporting factor. Flannel board media can be installed and removed, the advantages of which can make children happy, and make children's attractiveness increase in learning so that children will be motivated and encouraged to learn and with increasing children's motivation it will also have a big effect on the child's development. (Anggrayni & Sari, 2019).

The purpose of this study was to describe the activity, motivation, and result of children's cognitive development in recognizing number symbol using a combination of the MAMA PAPA model.

## **METHODOLOGY**

The research approach used is a qualitative approach with the type of classroom action research (CAR) which is used to describe the activity of teachers and children in teaching and learning activity.

Qualitative research is research that analyzes, examines in understanding the phenomena that occur. Therefore, researchers must go into the field to collect information data (Iwan, 2019).

The qualitative approach is the approach used as a direct source of data in which the direct researcher is used as the instrument. Qualitative research is research that intends to understand the phenomena of what is experienced by the research subject, such as behavior, perception, motivation, action, and others holistically. In education, qualitative research can be carried out to understand various behavioral phenomena of educators, students in the education and learning process (Rukajat, 2018).

The type of research conducted is Classroom Action Research (CAR). Classroom Action Research is action research in the field of education carried out in the classroom area to improve and improve the quality of learning in the classroom (Suriansyah, 2013). This means that classroom action research is a process that is carried out in stages, systematically and controlled by collecting data.

The research is carried out systematically and sequentially namely, the first stage of planning which here explains what, why, when, where by whom and how these actions are carried out. The second implementation, of course, is based on the curriculum or RPPH (Soesatyo & I Trisnawati, 2017). Third, observation, observation here to see how children's activity in the learning process are based on sheets or assessment instruments that have been made previously. Then the reflection here needs to consider and correct previous mistakes (Hidayatullah, 2018; Arikunto. et al, 2014; Sumini, 2016). Research subjects in the ability to recognize number symbol are children of group A PAUD Aisyiyah Busthanul Athfal 6 Academic Year 2020-2021 Semester II with a total of 5 children (2 girls and 3 boys).

The factors studied were teacher activity, children's activity, learning motivation, and the result of children's cognitive development. The teacher's activity studied were the first. The teacher's aspect conveyed the competencies to be achieved, presented the material and indicators carried out here, namely conveying in simple language, using media, explaining the activity to be carried out, provoking initial questions and answers with children. The aspect of teacher preparing question cards and answer cards and indicators carried out are making cards that are attractive, easy to hold, image sizes are easy to see, cards made of safe materials.

The teacher aspect gives children the opportunity to think about the answers from the cards and invites children to find partners, the indicators implemented are inviting children to look at cards and media, making sure everyone gets a partner, guiding children who are having difficulties, giving time limits. The teacher aspect asks the children to sort the pictures according to the numbers on the cards they get and the indicators that must be implemented are submitting orders clearly, encouraging children to actively cooperate, guiding

children in difficulty, managing the child's condition. The fifth aspect is the teacher gives the card back so that students get a different card and the indicators implemented are inviting the child to sing, changing the child's position, checking again, guiding children who are having difficulties. Aspects of the teacher instilling concepts or materials according to the competencies achieved by the observed indicators, namely explaining in simple language, checking asking questions again, making sure everyone understands, giving children the opportunity to ask questions. Finally, the teacher and children make conclusions. Teacher activity that must be carried out are giving appreciation and rewards, asking questions, giving children the opportunity to convey conclusions and benefits of activity.

The first child activity factor is the aspect of children working together to find a partner. The indicators studied are helping friends who have difficulty finding a partner, being responsible for tasks, actively looking for a partner, asking their partner. Aspects of children sticking cards on the flannel board, the indicators studied are being able to hold the card correctly, waiting for their turn, helping friends who are having difficulties, moving forward with enthusiasm. Aspects of children sorting pictures with number symbol, the indicators studied are moving forward with enthusiasm, holding pictures correctly, mentioning number sequences, completing picture sequences. The last aspect of the child mentions the symbol of the indicator number understudy, namely speaking, with his own volition, mentioning in order, with confidence.

The first learning motivation factor is enthusiasm in learning, the indicators are always answering, completing assignments seriously, actively interacting with teachers, always being happy. Second, the existence of children's interest in learning, the indicators are that children are interested in seeing, willing to answer questions, always holding learning tools and media. The three

disciplines in learning the indicators observed are sitting neatly, listening, not disturbing friends, obeying the rules. Finally, having a sense of curiosity, the indicators are always asking questions, listening to the teacher talk, fiddling with games, doing assignments to completion.

The first factor of child development is that the child can name the symbol of numbers 1-10. Both children can point to symbol of numbers 1-10. The three children can sort the pictures according to the number symbol.

The data collection technique in this classroom action research is in the form of qualitative data which is for teacher activity and children's activity using observation sheets based on the combined steps of the MAMA PAPA model. Children's motivation was obtained through observation sheets of children's activity and student worksheets (LKPD). Data on the result of children's cognitive development were obtained through observation sheets of all children at the end of each meeting consisting of 3 indicators.

The data analysis technique used for teaching activity and children's activity is a qualitative data analysis technique to analyze data obtained from the result of observation sheets during learning activity. The data analysis technique in this classroom action research is from teacher activity with a score range of 23-28 with the criteria of "Very Good", a score of 18-22 with the criteria of "Good", a score of 13-17 with the criteria of "Good Enough", a score of 7-12 with the criteria "Not good". Analysis of children's activity data using a score range table with 4 criteria for children's activity, namely "Very active" with a score of 13-16 or classically 82-100%. "Active" with a score of 10-12 or 63-81%. Quite Active with a score of 7-19 or 44-62%. "Less Active" with a score range of 4-6 or 25-43%. Then the classical children's activity scores range from 100% with the criteria "all children are active", 81-99% criteria "almost all children are active", 61-

80% criteria "most children are active", 41-60 criteria "most children are active ", 21-40% criteria for "a small number of active children", 1-20% criteria for "almost no active children", 0% criteria for "no active children".

The data analysis technique for learning motivation is from a score range of 13-16 criteria Highly Motivated, 10-12 criteria Motivated, 7-9 criteria Sufficiently Motivated and a score range of 4-6 criteria Less Motivated. The technique of analyzing data on the result of children's cognitive development with assessment criteria is BB (Not Developed), MB (Starting to Develop), BSH (Developing as Expected), and BSB (Developing Very Well).

The indicator of success in this study is the teacher's activity is said to be successful if it reaches a score of 23-28 with the criteria of Very Good. Activity Children individually get a score of 13-16 or with a percentage of 82-100% with very active criteria. Classically 80% of children are categorized as most active children. Children's learning motivation can be said to have succeeded in obtaining 14 with very high criteria, and classically it reached 82% with very high criteria. The result of a child's cognitive development is said to be successful if individually the child gets at least three stars with the criteria for Developing According to Expectations (BSH) and classically reaching 80% of children getting a minimum of three stars or developing according to expectations (BSH) from all children.

In this study, the researcher collaborated with the homeroom teacher where the teacher served as an observer, where the teacher would assess the learning process carried out by the researcher. In this research process, the researcher acts as a teacher, collects data and concludes. The data here starts from data on children's activity, children's motivation in learning, and children's learning outcomes in cognitive development to recognize number

symbol, then researchers here also serve as solutions in solving a problem in learning.

## RESULT AND DISCUSSION

The preparation of the research carried out in this study was carried out for 4 meetings. At each meeting, the teacher carries out the learning process which consists of planning, planning here the teacher makes a daily learning implementation plan (RPPH), prepares materials and media, makes observation sheets and assessment instruments from teacher activity, children, motivation and development result, and prepares worksheets. students (LKPD). The second stage is implementation which consists of initial activity containing greetings, conveying themes and others, then core activity where the teacher carries out the combination steps of the MAMA PAPA model by the RPPH, rest and final activity, for the final activity where the teacher holds questions and answers to children, invites to sing, read the prayer home and greetings. The third stage is observation, where the teacher makes observations on the first, namely the activity of teachers, children, motivation and developmental outcomes. Last reflection.

### Teacher Activity

Based on the result of data analysis shows that the teacher's activity during the research process (4 meetings) can be described as follows:

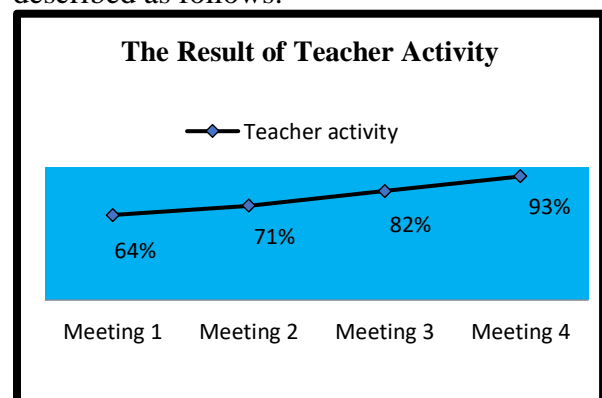


Figure 1: The result of Teacher Activity

From the graph it shows that in every meeting there is an increase in the score of teacher activity, starting at meeting 1 it scores 18 percentages of 64% with good criteria, meeting 2 gets a score of 20 percentages 71% with good criteria, then meeting 3 gets a score of 23 with a percentage 82% very good criteria, and the last meeting 4 got a score of 26 with a percentage of 93% very good criteria.

The supporting factors for increasing teacher activity at each meeting are mainly reflections on learning activity carried out by teachers to assess the extent of learning success and what are the factors for deficiencies will be used as material for improvement for the next meeting. Teachers also begin to learn and get used to carrying out learning activity using a combination of the MAMA PAPA model.

The task of the teacher is not only to act as a model or role model for children but also as a learning manager. Therefore, the success of the learning process is largely determined by the teacher's ability to manage to learn (Suriansyah, Aslamiah, Sulaiman, Noorhafizah 2014). The role of a teacher is a form of someone who provides guidance and learning resources (directing and facilitating the learning) so that the learning process is more optimal. In learning the teacher must understand the nature of the planned learning material (Zein, 2016).

Teachers must choose the right methods and teaching methods, efficient and effective by the material being taught. With the right learning methods, children's learning outcomes will develop optimally. learning methods for early childhood are designed with the concept of meaningful and fun play (Tanu, 2013).

It can be concluded that the teacher is a critical component of the success of learning because the teacher is someone who directly faces the child, and can understand all the characteristics of the child. The teacher's role plays an important role in the effectiveness of children's learning.

The use of the Make a Match model has a positive impact on teachers in the process of teaching and learning activity so that children can cheerfully develop their reasoning power and practice activeness and motivation which can be seen from the way children socialize with their friends (Haruna & Darwis, 2020; Doruah, 2019). This is in line with research conducted by (Metroyadi, Diani, & Salihah, 2019; Darmiyati, 2020) that applying a combination of making a matching model improves early mathematical abilities for early childhood so that with this model children feel free and happy and are encouraged to take part in direct participation.

The use of the MAMA PAPA model in learning can increase teacher activity in learning. using a combination of MAMA PAPA in teacher activity can be used as a learning model that can increase teacher activity at each meeting, children's activity, motivation and child development outcomes. So that the selection of the right learning model is very helpful in increasing the applied learning activity (Handayani & Pudjawan, 2019). In line with the theory (Imas & Sani, 2016) that the picture and picture model is a model based on images, where this image is a form of clarifying the meaning and as a supporting factor. Research (Nina, 2020) that flannel board media can improve the ability to recognize number symbol.

Based on the description above, the researcher can conclude that learning activity using a combination of the MAMA PAPA model (Make a MAtch, Picture and Picture, Flannel Board) can increase teacher activity in teaching and learning activity.

Learning using the MAMA PAPA model (Make A Match, Picture and Picture, flannel board) has advantages that can increase teacher activity at each meeting, including the first by conveying the competencies to be achieved, learning will run directed and support the process of early learning activity. The two teachers prepare question and answer cards, so here it can

make children more enthusiastically interested during the learning process because the teacher prepares cards that can create innovations in learning at school. The third aspect is that children are asked to think and understand so that learning is more meaningful. The fourth aspect of the researcher combines models and media so that children will hone their thinking skills, and here it creates a fun learning atmosphere. The fifth aspect is that children will be able to remember what was taught by being given cards and make class conditions active. Aspects of six children will be more familiar with the meaning and intent because it is equipped with interesting and concrete media, this can overcome problems that are abstract learning. The seventh aspect of the teacher will do questions and answer with children, and train children to communicate.

### Children Activity

Based on the result of data analysis conducted by children's activity in learning, there was a significant increase in each meeting. The graph of this increase can be seen as follow:

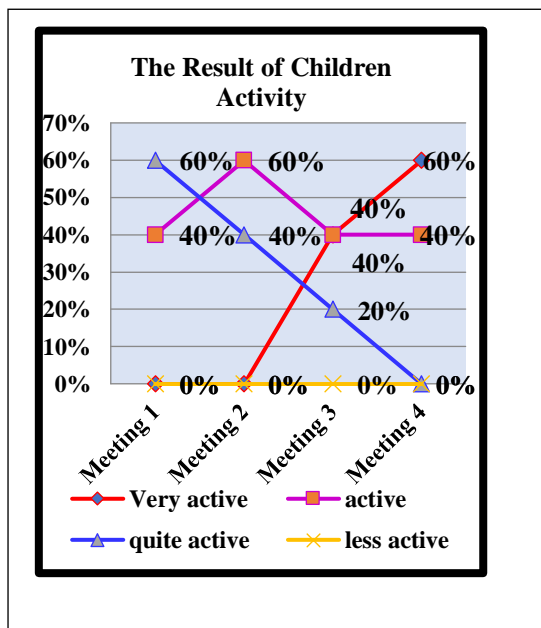


Figure 2: The Result of Children Activity

At the 1st meeting, children's activity gets 40% of the category, a small number of active children. This means that the teacher

improves the implementation of learning so that meeting 2 gets 60% of the categories, some of the children are active. In the next lesson, the teacher continues to try to improve teaching strategies so that at the 3rd meeting, 80% of the categories are mostly active children. The last meeting 4 got a maximum percentage of 100% for the category of all active children. This is because an increase in teacher activity will affect an increase in children's learning activity.

Teachers are very influential on children's learning achievements; therefore, teachers can apply various methods, methods, steps and use teaching aids such as teaching media to improve the quality in terms of the child's activity (Wibowo & Farnisa, 2018). The increase in children's activity in the learning process using the MAMA PAPA model at each meeting cannot be separated from several factors, namely, from improving teacher activity, teachers can condition the class, always make learning reflections so that learning runs smoothly, effectively, and efficiently.

The success of the combination of the MAMA PAPA model is believed that the Make a Match Model (looking for a partner) can increase children's learning activity both physically and cognitively, can be used as a solution to overcome the boredom experienced by children to make children more active than before.

For the picture and picture model, it is very important to clarify the meaning and give a real picture. In line with research that the Picture and Picture model has the advantage that it can provide children's learning enthusiasm, resulting in children's learning motivation (Untari & Ainin, 2017). In addition, flannel board media is believed to be able to make children feel happy, children's enthusiasm and interest in learning increases (Anggrayni & Sari, 2019).

### Children's Learning Motivation

Every meeting that is held in the learning process, the classical percentage

obtained continues to increase and until it reaches the category all children are motivated. Children's learning motivation, such as enthusiasm in learning, the indicators are always answering, completing assignments seriously, actively interacting with teachers, always happy. Then the child's interest in learning is an indicator that the child is interested in seeing, willing to answer questions, always holding learning tools and media. Then Discipline in learning the indicators observed were sitting neatly, listening, not disturbing friends, obeying the rules. Finally, having a sense of curiosity, the indicators are always asking questions, listening to the teacher talk, fiddling with games, doing assignments to completion. For more details, see the following graph:

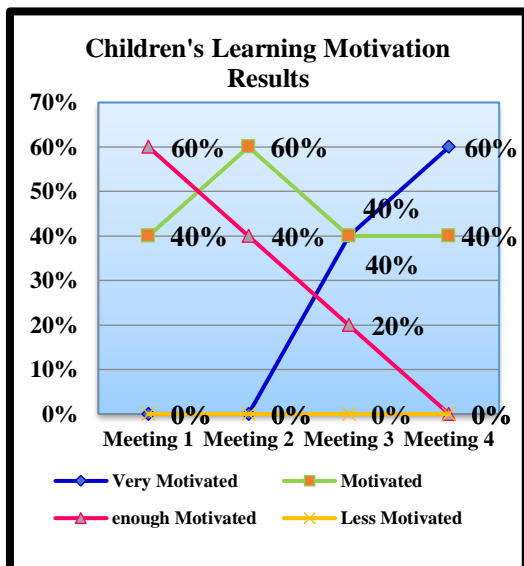


Figure 3: Children Learning Motivation Results

At the first meeting, the children's motivation to get 40% was in the criteria of being less motivated. Until meeting 4, the maximum percentage is 100% in the highly motivated category. Each meeting that experienced an increase was because at each meeting of the teacher's activity, the children's activity was getting better and it also affected the children's learning motivation.

Motivation in education is important to develop. This means that motivation in the learning process in children must be

explored because it can encourage, move, and direct children (Rahmat & Jannatin, 2018). Purwanti, R., (2021) found that the picture and picture model can improve child motivation in learning.

The use of the Make a Match model is very influential on students' motivation and learning outcomes. This model is a way for teachers to help students in understanding, remembering what causes the growth of student motivation. With this model, children will be interested and excited when learning is fun.

Learning that can increase children's learning motivation is to use the first MAMA PAPA model when children work together to find pairs of cards (Make a Match). In this aspect, the child always answers questions when asked by the teacher and completes the task seriously.

**Cognitive Development Result**

At each meeting there is always an increase in the percentage of success, for more details can be seen in the following graph:

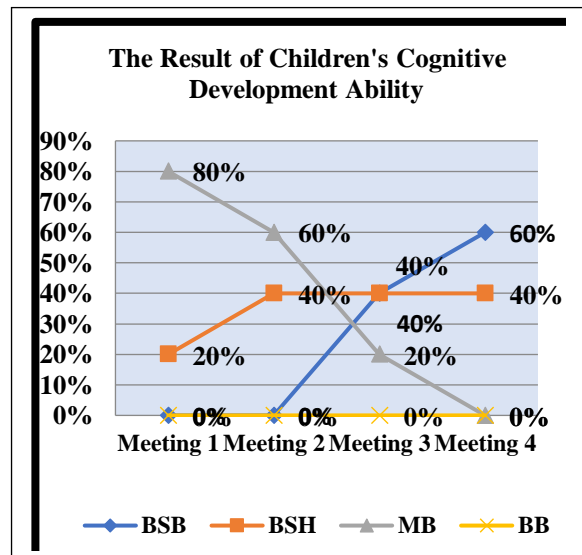


Figure 4: The result of Children's Cognitive Development

The graph shows an increase. At the first meeting, there were 4 with a percentage of 80% and 1 child (BSH) with a percentage of 20%. Until meeting 4, 2 children developed according to expectations (BSH) with a percentage of 40% and as many as 3



children developed very well (BSB) with a percentage of 60%. So that at the 4th meeting, the children's completeness managed to develop 100% which amounted to 5 children.

This is in line with the opinion of Hakim, Lukman, & Fitria (2020) that cognitive development is very important to explore and hone with the provision of a stimulus. This is in line with relevant research that uses a combination of Make a Match, Picture and Picture, Flannel Board models. Research by Rahmasari, Rintayanti, & Wahyuningsih (2019) shows that the value of mastery ability to recognize the concept of children's numbers increases. The cognitive development of children in recognizing number symbol using a combination of the MAMA PAPA model can improve the result of children's development achievements.

It can be concluded that the achievement indicators of children's success in learning are caused by the emergence of children's motivation and interest in learning. So that the success rate of children's learning outcomes is influenced by the activity and motivation or encouragement

## CONCLUSION

Based on the result of classroom action research (CAR) that has been carried out in the field of cognitive development recognizing number symbol using a combination of the MAMA PAPA model which is carried out through several actions at meeting 1, meeting 2, meeting 3, and meeting 4 in group A PAUD Aisyiyah Busthanul Athfal 6 children Banjarmasin, it can be concluded that the activity, motivation, and the result of cognitive development in recognizing the symbol of numbers reach the criteria for Very Good Development (BSB). With this learning model, it can be used as a source or material for the process of learning activity that can increase children's activity, motivation and development outcomes.

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