

# EMPOWERING TEACHERS IN MONITORING GROWTH OF TODDLERS

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## RESEARCH ARTICLE

### EMPOWERING TEACHERS IN MONITORING GROWTH OF TODDLERS

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#### ABSTRACT

Monitoring the growth and development of children is not only the responsibility of health workers, but also the responsibility of the teacher. Research Objectives: Empowering the teacher's role in monitoring children's growth and development. This research method is pre-experimental, with a Static Group Comparison design approach. The population is a teacher in Early Childhood, a large population of 100 people. The research sample was 50 respondents in the treatment group, and 50 respondents in the control group. Instrument for collecting data with questionnaires and observation sheets. Questionnaire to detect emotional growth, development and mental. Observation sheets are used to observe observations. Test Analysis uses the dependent T-test. The results showed the ability of teachers who were given the RolePlay method the value of growth measurement on average 96.60, the average value of development 96.64, the average mental emotional value was 97.22. While the lecture method, measuring the growth value of 82.72; measuring the development of values is 83.86 and the statistical average is 82.48. The statistical test results using the T-Test obtained the value of each variable (knowledge, growth, development, and mental emotional) is  $p < 0.05$ . This means that there are significant differences between teachers who are given the role playing method and those who are given the exposure / lecture method. The results of the knowledge and treatment of the control group after being given materials were  $p > 0.05$ . This means that there is no significant difference between the control group and the treatment group. The conclusion of this research is that role playing provides has been shown to increase the ability to measure, grow, develop and mentally emotionally. The Role Play provisions do not support increasing knowledge of early detection of growth and development.

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#### INTRODUCTION

The problem in this study is how to improve the ability of teachers to detect growth and development of children, using various learning methods. Early detection of child growth and development is an activity to find early deviations in the growth and development of toddlers and pre-school children. Monitoring the growth and development of children is very important because the child is the most perfect period of brain growth. The brain in children has good plasticity. Brain plasticity in toddlers has both positive and negative sides. The positive side of the toddler's brain is more open to the process of learning and enrichment. The negative side of the toddler's brain is more sensitive to environments that are not supportive, such as adequate health. The first five years, is a period that is very sensitive to the environment. This period is very short and cannot be repeated again. Therefore the toddler period is referred to as the "golden period" (golden period), the window of opportunity (window of opportunity) and the critical period

(Subagyo and Mukhadiono 2010), (MOH RI 2018). Early detection of growth can be done by anyone, aiming to find the status of malnutrition / poor and micro / macrocephaly conditions. In the community detection can be done by parents, health cadres, Toddler family development, Early Childhood Education officers, and kindergarten teachers. The instruments they used were the Card to Health (KMS) and the steel scale (Alfiyan and Rokhmah 2016)

**Research purposes:** This study aims at the differences in the method of learning Role play and lectures on the use of the MCH handbook, in an effort to improve the ability of teachers to detect the growth of toddlers' development.

**Hypothesis:** There is a difference between the Role play method and the lecture on the use of the MCH handbook in increasing the ability of teachers to detect the growth of toddlers' development

#### METHODS

The design of this study was Pre-experiment, with a statistical design of the Group Comparison with Control Group Statistics

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because the grouping of control group members and the experimental group was done on a random basis. Then a pretest was performed in both groups and intervention was followed (X) in the experimental group after which a posttest was conducted in both groups (Sari and Rustiana 2013)

**Research Design**

Pretes	Treatment		Postes
R (Experimental Group)	01	X1	02
R (Control Group)	01	X2	02

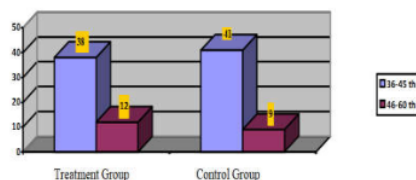
**Figure 1. Pre-experimental design research design, with pre-post test, with control group.**

**Population and Samples:** The population of Early Childhood Education Teachers is 100 people. The sampling technique is simple random sampling, which is simple random sampling. After calculating the sample size formula, 50 respondents were the control group and 50 treatment groups. The method of taking samples is taken randomly by giving the serial number of respondents in small paper written 1-100, then rolled up and put all the numbers including the population into the box to be drawn. The next step is to take a number of samples taken. The variables of this study are the role play method, with sub variables: 1) the respondent's knowledge before taking a action; 2) respondent's knowledge of growth measurement 3) respondent's knowledge of developmental measurement.

**Instrument:** The instruments used to collect data, namely questionnaires and observation sheets. The questionnaire was used to measure the respondent's knowledge before and after being given the material. Observation sheets are used to observe the activities of cadres during the implementation of learning. Analysis of the data used is univariate analysis and bivariate analysis. Univariate analysis was carried out to describe the characteristics of the respondents, the results of the pretest and posttest as well as the description of the results of the observation (Final Kumod Metlit\_Pusdiklatnakes\_2016\_rev\_April\_2016 n.d.). The data that can be obtained is the middle size (mean, median, mode), distribution and frequency. For categorical data using distribution and frequency. Bivariate analysis is used to analyze the results of pre and post tests. The bivariate test results are also to answer the research hypothesis. The analysis used is the dependent t-test. The dependent T test was carried out because it is two dependent / paired data. Dependent T test is also used to test the mean difference between two dependent data groups of numerical type (Final Kumod Metlit\_Pusdiklatnakes\_2016\_rev\_April\_2016 n.d.)

**RESEARCH RESULTS**

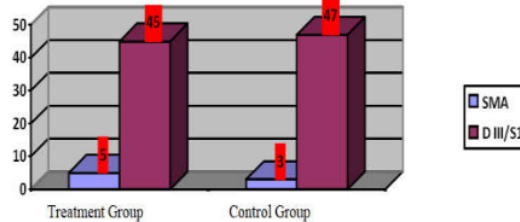
**Data by Age**



**Graph 1: Age frequency distribution of treatment and control groups**

The results showed the age of respondents 70% in the treatment group and 82% in the control group in the age category of late adulthood (36-45 years)

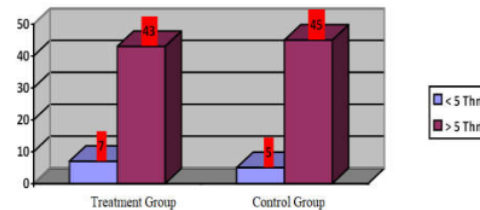
**Education Data**



**Graph 2. Distribution of education frequency in the treatment and control groups**

The results showed 90% of respondents in the education treatment group were D III / S I, and 94% in the education control group were D III / S I.

**Long working**



**Graph 3. Frequency distribution of the duration of treatment and control groups**

The results showed 86% of respondents in the treatment group worked > 5 years and 90% in the control group worked > 5 years

**Growth Measurement Results**

The ability to measure the growth of respondents in the treatment group averaged 95.60, while in the control group the average value was 82.72. The ability of teacher educators who were given the method of Caramah and role play how to detect the development of the average value of 96.64 while those who were given the method of Caramah how to detect the development of the value of 83.86.

**Mental Emotional Measurement Results Data:** The ability of teacher educators given the method of Caramah and Role Play how to detect mental emotional behavior problems on average 97.22 while given the method of Caramah the value of how to measure the growth value of 82.48.

**Pre Measurement Data and Test Post Early Detection Of Development Growth Disorders:** Comparison of teacher knowledge before being given material to the treatment group the average value is 40.28 and after being given material the average value is 75.60.

**Table 1: Frequency distribution of respondents in measuring growth in the treatment and control groups**

Indicator	N	Mean	Median	Modus	Std.Deviasi	Min	Max
Treatment group	50	95,60	95	100	5,014	84	100
Control group	50	82,72	84,00	89,00	11,770	53	100

**Table 2. Frequency distribution of respondents in measuring growth in the treatment and control groups.**

Indicator	N	Mean	Median	Modus	Std.Deviasi	Min	Max
Treatment group	50	96,64	100,00	100,00	3,805	86	100
Control group	50	83,86	86,00	93,00	15,097	3	100

**Table 3. Frequency distribution of respondents in measuring MENTAL EMOSIONAL in the treatment and control groups**

Indicator	N	Mean	Median	Modus	Std.Deviasi	Min	Max
Treatment group	50	97,22	98,00	100	2,838	90	100
Control group	50	82,48	83,00	87,00	7,820	20	90

**Table 4. Distribution of respondents' Frequency of Knowledge Before and After the Early Detection and Intervention Stimulation Material Giving Children in the Control and Treatment Group**

		N	Mean	Median	Modus	Std.Deviasi	Min	Max
Before being given Treatment	Treatment group	50	40,28	40,00	40	8,924	25	65
	Control Group	50	37,20	35,00	35	10,160	15	60
After being given the Treatment	Treatment group	50	75,60	80,00	80,00	8,490	45	85
	Control Group	50	69,80	70,00	70,00	12,480	30	90

In the group before being given material, the value was 37.20 and after given the material value was 69.80.

**Analysis Test Results:** The results of statistical tests using the T-test to compare knowledge before being given material to the control and treatment groups were 0.005 ( $p < 0.05$ ). The results of statistical tests using the T-test to compare knowledge after being given material to the control and treatment groups were 0.110 ( $p > 0.05$ ). Statistical test results using the T-test in the control and treatment groups in measuring growth, development and Emotional Mental values were significant 0,000 ( $p < 0.05$ ).

## DISCUSSION

High and low education of respondents is very influential in the teaching and learning process, especially in detecting and providing early intervention in child development. Thus it can be concluded that education is a means to help a child to be able to develop the potentials that exist in him (Hemani Triredjeki 2020). The results of research on Early Detection of Developmental Disorders Development is not all respondents can master how to detect growth, development especially detect mental emotional behavior. This is because all respondents for the first time know and know how to do Early Detection of Developmental Disorders Development correctly. This means that the length of work may not necessarily master all fields of knowledge / new knowledge so it needs to be given guidance on an ongoing basis to be able to pass the measurement of child development independently. The results of observations on the ability of teachers who were given the material using the role play method treatment in general Good.

The ability to measure growth (weighing, measuring height and measuring head circumference) results is better than the group given lecture material. The ability to refer to weighing results in the Weight / Height table in the weight column. The ability to refer to head circumference graphs proved to be better than the group given the material with the lecture method. This shows that the role play method used when weighing, measuring height and head level is well understood by educators. This method is a method that involves various aspects of internalization of understanding, both the senses of sight, hearing and applications that are carried out so that it can improve the skills of teacher educators. They will first understand the techniques and procedures taught, then do it in the form of practice for toddlers. Through this method, teacher educators provide mutual assistance to their colleagues to develop tricks and procedures that have been obtained. Role playing learning techniques are classified into a simulation presentation technique that gives students the opportunity to act like the people involved or in the desired circumstances (Lestari and Syamsianah 2012). Through the role play method of measuring growth, encourages teachers to educate and exchange opinions, as well as complement each other well with their peers so they can participate optimally (Subagyo and Mukhadiono 2010). They are not only fixated by sitting down or paying close attention, because at the time of this role play they are more able to rule out rules that are too formal but still adhere to ethics that are mutually agreed upon. They are no longer shy about expressing their ideas and understandings, for fear of being mistaken for not understanding. But by doing role play, mistakes made when measuring are mistakes from the characterization being done (Wandah Waenawae 2015). The results of observations on the ability of teachers who were given the role play method to detect the development of better results with an average value of 69.12.

The ability to do a visual test, a hearing test and ask for progress using a pre-screening developmental questionnaire instrument is better than the lecture group. The results of observations on teachers who were given the method of teaching and role play were able to perform well, detect mental emotional behavior problems using the Emotional Behavior Problems Questionnaire, Modified Checklist for Autism in Tooder (M-CHAT) and Concentration Disorders of Attention and Hyperactivity. This shows the important role of teachers in preventing the risk of accidents and disasters in children (Hery Sumasto, Nurwening Tyas Wisnu 2018). The lecture method is continued with role play which involves various aspects of internalization of understanding, both the senses of sight, hearing and applications that are carried out so that it can further enhance the skills of teacher educators. They will first understand the techniques and procedures taught, then do it in the form of practice to their friends. Through this method, teacher educators provide mutual understanding assistance to their peers to develop tricks and procedures that have been obtained (S. Hery Sumasto et al. 2019). A person's knowledge is influenced by: age, the more sufficient age, the level of maturity and strength of a person will be more mature in thinking and working, possibly also influenced by their education Major Bachelor, because high educators make someone easier to accept information so that the knowledge that is also easier to possess (Wisnu 2018).

The results of the analysis test showed a significant difference in ability between teacher / TK teachers given the lecture method and role play compared to teacher educators / TK who were given the lecture method. The significant difference in this ability is because the lecture material continued with role play where this method involved various aspects of understanding internalization, both the senses of sight, hearing and the applications that were carried out so that it could further enhance the skills of teacher educators. They will first understand the techniques and procedures taught, then do it in the form of practice to their friends. Through the roleplay method, teacher educators provide mutual understanding assistance to their colleagues to develop tricks and procedures that have been obtained (Wandah Waenawae 2015). Role-playing is a teaching strategy that is included in the group of social learning models (Wisnu, Wrahathinggih, and Sumasto 2018). This strategy emphasizes the social nature of learning, and views that cooperative behavior can stimulate students both socially and intellectually. Role playing strategies can increase students' interest in a subject and subject matter, so as to increase their understanding of the concepts being taught to them (N. W. Hery Sumasto 2020). This is consistent with the theory that active students will get better learning outcomes. Students who are active in their learning outcomes will be different from passive students who only sit listening to lectures from their teacher. Therefore to be able to apply the role playing method to teaching well and directed, the teacher must first explain these techniques clearly to students who will carry it out (Hery Sumasto, Sulikah 2019). The role of the teacher is very important to prevent children from avoiding weaknesses and disasters. In their growth and development, children are very dependent on parents. For this reason, children need to be well protected. (S. Hery Sumasto et al. 2019; Sumasto and Surtinah 2018).

## Conclusion

The ability of teacher educators given the role play method proved to be more competent in measuring growth, measuring development, more competent in detecting mental emotional behavioral problems. The provision of Role Play does not support an increase in the knowledge of teacher educators in detecting child development.

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