

EFFECT OF MOVEMENT AND SONG ON THE KINESTHETIC INTELLIGENCE OF 5-6 YEAR-OLD CHILDREN

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Abstract: In the observation results, researchers found a problem in children's kinesthetic intelligence, especially in children aged 5-6 years, including some balance and coordination issues in children that were still lacking. Some children still had difficulty understanding instructions for performing sports movements, and children still needed teacher assistance when crossing the balance beam. Therefore, this study aims to determine whether there is an influence of movement and song on the kinesthetic intelligence of children aged 5-6 years. This study uses a quantitative approach with a pre-experimental design, specifically one group pretest and posttest. The sample consisted of 37 children selected using purposive sampling technique. Data collection was done through observation using a checklist sheet. Data analysis in this study used non-parametric hypothesis testing, specifically the Wilcoxon test. The results showed that the variation in the use of movement and song had a significant effect on children's kinesthetic intelligence, as evidenced by the $Asym.sig$ value of $0.000 \leq 0.05$. Kinesthetic intelligence in children can be seen based on indicators such as eye coordination, hand coordination, movement, muscle strength, time, distance, speed, agility, muscle strength, posture, joint flexibility, muscle flexibility, strength, and speed.

Keywords: Movement and Song, Kinesthetic Intelligence, Early Childhood.

INTRODUCTION

During childhood, there is high sensitivity to acceptance. All developmental influences are given from an early age, so with all the sensitivity a child possesses, it is easier to optimally accept them. These developmental aspects will proceed optimally if the child is stimulated according to their developmental stage. This is where parents and teachers play a role in stimulating a child's physical development, as this is crucial for improving the ability of large and fine muscles in children. A child's physical development is specifically related to multiple intelligences,

commonly referred to as multiple intelligences. Talking about physical development in children, this physical development in children is classified as kinesthetic intelligence because it is related to the optimization of children's ability to use and control body movements. This kinesthetic intelligence is closely related to gross motor skills in children, which aims to move their bodies using large muscles or most of the entire body, which is influenced by the child's maturity. The definition of kinesthetic according to Gardner (in Ngewa 2020: 3) states that "kinestetik as well is the capacity to work skillfully with objects, both those that involve the fine motor movements of one's fingers and hands and those that exploit gross motor movements of the body". Gardner explains that the characteristics of children who are kinesthetically intelligent have the capacity to work regularly with objects, both involving fine motor skills using fingers and hands and those that exploit body movements or gross motor skills. This intelligence includes specific physical abilities, such as coordination, balance, skill, strength, flexibility, speed, and accuracy in receiving stimuli, touch, and texture. Children who have good kinesthetic intelligence will not be still when they are in their play environment, the child will explore and utilize the play environment and touch objects that are directly involved in the activities around the child. Children with good kinesthetic intelligence usually have a high curiosity about their surroundings, usually children with good kinesthetic intelligence when they find a new object they will immediately play with it, such as children who like to take apart and put together toys. This is in line with Musfirah's research (in Kadi 2018: 1) which states that aesthetic belief intelligence is the ability to use whole body movements to express ideas and feelings as well as the skill of influencing hands to create or change something. Kinesthetic movements are seen prominently in children who are intelligent in using physical skills, such as looking stronger and more agile than children their age. Children with good kinesthetic intelligence tend to like to move, cannot sit still for long, tap things, imitate the movements or behavior of others who attract their attention and enjoy activities that rely on the power of movement such as climbing, running, jumping and rolling. Kinesthetic intelligence can be stimulated through various means, including dancing and sports, which require music or songs as instruments. Kinesthetic intelligence,

according to Suyadi (in Agustin Ningsih 2019:37), is "a person's ability to combine physical and mental abilities to produce perfect movements." This means that kinesthetic intelligence is a good coordination between the nerves (mind) and the rest of the body. Parents and teachers should be aware of and find out if their child has the characteristics generally seen in children with good kinesthetic intelligence. Parents and teachers should ensure whether the child shows a need to move and engage in physical activities that appear to be high in curiosity and whether their child is talented in the field of dancing and other physical activities. We, as parents and teachers, can assess kinesthetic intelligence in children through these characteristics. According to Musfiroh in (Kadi 2016:2), kinesthetic intelligence is the ability to use whole-body movements to express ideas and feelings.

as well as The ability to use one's hands to create or transform something. This intelligence encompasses specific physical abilities, such as coordination, balance, dexterity, strength, flexibility, speed, and accuracy in perceiving stimuli, touch, and texture. This intelligence can be stimulated through various activities, including dancing and sports, which require music or songs as instruments. When children hear music or the rhythm of a song, they will demonstrate body parts accordingly. with the rhythm of the song. These movements and songs can enhance kinesthetic intelligence, enabling the use of mental abilities and coordination of bodily movements. This is in line with Mutiah's statement in (Agutin 2019: 26), which states that movement is a means of expression and diverting fear, sadness, anger, pleasure, and so on. This ability will then be stimulated by the body through body movement, balance, strength, agility, and eye-hand and foot coordination. Children's skills in performing movements are inseparable from the participation of parents and the surrounding environment, which can motivate movements that enhance children's motor development assets, especially in gross motor skills. Thus, kinesthetic intelligence not only indicates the ability in physical activity alone but also the ability to control body movements in a coordinated and timely manner. In the results

of observations conducted at AL Hairiah Kindergarten, Rajabasa District, Bandar Lampung City, researchers saw several children whose kinesthetic intelligence was still imperfect. This can be seen when children who should be 5 to 6 years old can

already walk on a plank without assistance from others or teachers. However, when researchers conducted the study, it was found that many children still needed teacher assistance to cross the plank. Some children also had difficulty understanding instructions for exercise movements. And some children still lacked coordination and balance, as evidenced by daily assessments of the children.

This is in line with observations made by Sri Wahyuningsih (2024) in her research, which found that there are still students whose kinesthetic intelligence has not developed optimally. This is seen when they participate in gymnastics activities where some children still have difficulty following the movements during gymnastics, which is caused by their body balance not being well coordinated and their leg and hand movements not being optimally placed. Then during gymnastics, children also still have difficulty coordinating leg and hand movements, so they cannot adjust to the predetermined movements.

This is also in line with previous research conducted by Ngewa (2016: 5) in the statement shows that children have not been able to show good kinesthetic movements, this is indicated by 1. Children have not been able to do coordination movements, 2. Children have not been able to do balance movements, 3. Children have not been able to do skill movements with various fingers and hand movements because it looks like children are still awkward, unstable and stiff in moving, for example, many are still shy or not confident in sports activities and there is a lack of variety in activities taught by teachers. And in research conducted by Windy Agustiningsih (2019) shows that children are still less interested in what the teacher tells them to do, this is because the method used by the teacher is not enough to attract the attention of children so that children often play alone because they feel bored, and when invited to exercise, children just follow along and do their movements as they please. According to Suyanto (in Windy Aghnaita 2017: 9 - 10) states that children aged 4 - 5 years in their motor development children can already walk in a straight line, hop on one foot, although not yet perfectly, pedal and steer wheeled toys, jump as high as 5 or 6 inches, run, catch, throw, squat, and hold a pusher. For this reason, researchers are interested in conducting a study that takes the topic of movement and song on the development of children's kinesthetic intelligence 5-6 years to find out if there is an influence of movement and song on kinesthetic intelligence in children

METHOD

The method used in this research is a quantitative descriptive experimental approach. According to Creswell (2015), quantitative research is a method for testing theories.(theories) by examining the relationship between variables. The variables in this study were measured using research instruments so that the numerical data could be analyzed using statistical procedures. The research design used in this study is one group pretest and posttest. This research was conducted at AL Hairiah Kindergarten in Rajabasa District, Bandar Lampung City. The population was 134 children, and the sample size was 37 children from the Matahari class. The sample was selected using purposive sampling.

In this study, the criteria used were the sun class aged 5 to 6 years. The data collection technique used was observation in the form of a worksheet checklist. Researchers use scale likert To measure respondents' perceptions, the assessment criteria are as follows:

BSB (Developing Very Well), BSH (Developing As Expected), MB (Starting to Develop), BB (Not Yet Developing). The data analysis technique used in this study is analysis Hypothesis Testing Criteria Hypothesis Testing in this study using Non-Parametric Test (Wilcoxon Test) with the help of Program IBM SPSS Statistic Version 25 For Windows. The basis for making decisions to accept or reject hypotheses in Wilcoxon test is If Probability Asymp.sig ≤ 0.05 then the hypothesis is accepted, and if Probability Asymp.Sig ≥ 0.05 then the hypothesis is rejected.

RESULT AND DISCUSSION

RESULT

There are 37 students in the Matahari class at AL Hairiah Kindergarten, ages 5-6. The following table shows the children's data by gender and age.

Table 1. Data on children aged 5-6 years, AL Hairiah Kindergarten, Rajabasa District, Bandar Lampung City

No	Gender	Age		Amount
		5 years	6 Years	
1	L	9	12	21
		Children	Children	Children
2	P	6	10	16
		Children	Children	Children
Total				37 Children

The table above shows that there are 9 boys aged 5 years, and 12 boys aged 6 years. Meanwhile, there are 6 girls aged 5 years, and 10 girls aged 6 years. The total number of boys is 21 and the total number of girls is 16, for a total of 37 children.

This research was conducted at Al Hairiah Kindergarten, Rajabasa District, Bandar Lampung City, and was held in 7 meetings, namely on May 9, 2025 and May 23, 2025. The research consisted of an assessment of kinesthetic intelligence before using movement and song media. (Pretest) as much as 2 time meeting, continued with give treatment or (treatment) using motion media and songs with the song title "Bubu Hap Hap" as many as 3 time meeting, and assessment skill after using motion and song media (Posttest) as much as two meeting times. The data obtained from the research results are divided into 4 categories, namely BSB with a score value of (4), BSH with a score value of (3), MB with a score value of (2), BB with a score value of (1). The calculation is used to find the interval value or range of values for each category assessment as follows:

The results of the calculations above show that the number of classes (categories) is 4 and the value range (interval) is 38. The data from the pretest research on treatment and process will be presented as follows:

1. Pretest Result

The pretest scores for children's movement and song skills were used to determine the children's initial movement and song skills. Based on the recapitulation of observations conducted in two meetings, these skills can be presented as follows:

Table 2. Percentage of observation results on intelligence before treatment (Pretest)

No	Category	Interval	Frequency (f)	Percentage
1.	BSB	37 – 65	0	0%
2.	BSH	66 – 93	5	13%
3.	MB	94 – 122	28	76%
4.	BB	123 - 148	4	11%

Based on the table above, it can be seen that the kinesthetic intelligence of children before being given movement and song treatment with category 4 BSB was 0 children with a percentage of 0%. In the BSH category there were 5 children with a percentage of 13%. In category 2 MB there were 28 children with a percentage of 76% and in category 1 BB there were 4 children with a percentage of 11%.

2. Posttest Result

The results of the process are used to determine the children's learning outcomes after receiving the movement and song media treatment. Based on the recapitulation of observations conducted in two meetings, the results of the children's kinesthetic intelligence can be presented as follows:

Table 3. Presentation of the results of observations of kinesthetic intelligence after treatment (Posttest)

No	Category	Interval	Frequency i(f)	Percentase
1.	4 = BSB	114 – 120	6	16%
2.	3 = BSH	121 – 127	31	84%
3.	2 = MB	128 – 134	0	0%
4.	1 = BB	135 – 140	0	0%

In learning activities after using movement and song media for 3 meetings, there was an increase in kinesthetic intelligence, namely 6 children in the BSB category with a percentage of 16%, 31 children in the BSH category with a percentage of 84%, and in the

MB category there were 0 children with a presentation of 0% and 0 children in the BB category with a presentation of 0%. Kinesthetic intelligence skills of all students pretest and posttest which is presented in the following table:

Table 4. Comparison of values pre-treatment And post- treatment

Data	Pre-treatment	Post-treatment
N	37	37
Score	97	127
Maximum		
Minimum	60	107
Score		
Mean	83,30	118,054
Median	84	119
Modus	93	116,120,124
Standard Deviation	10,60	5,27

Table 4 above provides information regarding data comparison pre-treatment and post-treatment on the kinesthetic intelligence abilities of children aged 5-6 years. This comparison can be seen from several data, namely the maximum score pre-treatment which is 97 and the score post-treatment namely 127. The minimum score on pre-treatment which is 60, and at post-treatment yes it is 107. Mean or the average value on pre-treatment which is 83.30 and at post-treatment amounting to 118,054. Median or the mean value in pre-treatment was 84, and in post-treatment it was 119. Modus or the value that often appears in pre-treatment is 93 and in post-treatment namely 116,120 and 124. Standard deviation in pre-treatment which is 10.60 and at post-treatment which is 5.27.

The research hypothesis test was used to determine the influence of movement and song on children's kinesthetic intelligence. The sample in this study consisted of 37 children, because the sample size was less than 50. Researchers use Wilcoxon test. Recruitment decision Non-Parametric Hypothesis Testing done by comparing mark p-value with level significance which has been determined (0.05). As a measuring tool to test the

hypothesis with big decision making hypothesis is accepted or rejected as follows:

1. If the probability (Asymp. themselves) < 0.05 then the hypothesis is accepted.
2. If the probability (Asymp.sig) > 0.05 then the hypothesis is rejected.

The calculations in this study use the help of a program IBM SPSS Statistic25 for windows. After the calculation, the value obtained was Asymptotic, which is 0.000 which means it is less than 0.05 (Asymptotically, $0.000 < 0.05$). Based on the results of the data calculation, it was concluded that the research hypothesis was accepted, meaning that there was an influence of movement and song on kinesthetic intelligence in the children of Matahari class at AL Hairiah Kindergarten, Rajabasa District, Bandar Lampung.

Discussion Based on results Which it was found that there was a significant influence between the use of movement and with on the kinesthetic intelligence of children aged 5-6 years. The research results show that movement and influential songs in improving kinesthetic intelligence in children. This was proven by the post-test results, which showed an increase in kinesthetic intelligence in children. When given treatment using movement and songs, children began to experience an increase in their kinesthetic intelligence. After three days of treatment involving movement and songs, children's kinesthetic intelligence experience Improvement. The use of movement and song is a form of stimulation given to children. Meanwhile, kinesthetic intelligence is a response that arises from this stimulation. Stimulation is provided during learning to see the effect of the use of movement and song on children's kinesthetic intelligence before and after. Given treatment. Discussion on statement this is done based on presentation Analysis of research data on children aged 5 to 6 years at AL Hairiah Kindergarten, Rajabasa District, Bandar Lampung City based on the circumstances and conditions that correspond to the data obtained in order to be understood and comprehended. The presentation of data analysis of children's listening skills will be discussed in detail as follows.

CONCLUSION

Conclusions should be written clearly and concisely. Conclusions should not repeat sentences that have been written in the problem formulation or research objectives. The conclusion should be complemented with theoretical and pedagogical contributions to

previous research, research implications, research weaknesses and future research..

Movement and song are tools that cannot be separated from early childhood learning because movement and song are activities that can support success in learning. By doing learning with movement and song media, children will feel happier and more interested in learning because music or singing is the world of children so that learning using this song movement media can make it easier to improve children's kinesthetic intelligence, especially in improving coordination, balance, strength, speed, agility, flexibility and power in children. Based on the results of research and discussion of kinesthetic intelligence before and after being given treatment using song media and movement with Wilcoxon test analysis on the help of the IBM SPSS statistical program version 25 for windows, experienced improvement

This hypothesis test uses a non-parametric test which obtained an Asymp sig value of $0.000 < 0.05$, which means there is a significant difference between the scores before and after treatment. Therefore, it can be concluded that there is an influence of movement and song on the kinesthetic intelligence of children aged 5-6 years in the Matahari class of AL Hairiah Kindergarten, Rajabasa District, Bandar Lampung City.

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