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Improving motor skills through manipulative movements of acik gymnastics (cheerful and creative children) in early childhood

Noviria sukmawati[1,*], Ella Tumalloto[2], Komang Juliawati[1]
[1] Sport Education, Faculty of Social and Humanities, Universitas Bina Darma
[2] Physical Education, Faculty of Sports and Health, Universitas Negeri Gorontalo
[1]noviria.sukmawati@binadarma.ac.id *; [2] ella.tumaloto@ung.ac.id ; [3] komang@gmail.com
*corresponding author

ABSTRACT

This study aims to improve motor skills through manipulative movements of ACIK (Anak Ceria dan Kreatif) gymnastics in early childhood. This type of research is Classroom Action Research (PTK) using Kemmis and Mc Taggart design. The subjects of this study were State Kindergarten Pembina 4 Palembang with a total of 20 children. Data collection techniques using observation and documentation. The research instrument used TGMD 2. This research includes classroom action research using a model Kemmis and Mc. Taggart which consists of 4 stages (planning, action, observation and reflection). Data collection techniques through observation and documentation. Data analysis technique using descriptive analytics. The results of this study indicate that children's motor skills improve through manipulative movements of ACIK (Cheerful and Creative Children) gymnastics. The increase in children's motor skills is shown by data from pre-action very good criteria obtained a percentage of 43.99%, while in Cycle I it became 68.91%, then in Cycle II it increased to 79.03%.

***Keywords**: children's motor skills, ACIK Gymnastics*

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Correspondence Address:
Noviria Sumawati
Sport Education, Faculty of Social and Humanities
Universitas Bina Darma, Palembang, Indonesia
E-mail: noviria.sukmawati@binadarma.ac.id

INTRODUCTION

Kindergarten education is a formal educational institution for children before entering the next level of education. This institution is considered important to develop children's potential optimally. Kindergarten education aims to help students develop various potentials, both psychological and physical, which include moral, social, physical, language, and cognitive aspects. Early childhood is the golden age. The minimum quality standards will aim and will ensure through their fulfillment: physical development, socio-emotional development, language development, communication and written-reading prerequisites, prerequisites for cognitive development and learning abilities and attitudes in children aged 3- 6 years (Coste, 2020).

Each child is unique, with its own personality, potential, needs, living conditions, etc. The child is considered to be a competent and meaningful agent of active intelligence, eager to learn and enjoy wellbeing. All children have the right to education and care, so the adults involved in their lives must offer them the opportunity to develop in the best possible way and under the best conditions (Cymru, 2012). A child's life, from conception to few years of early

ages, are considered the most significant developmental period. Physical, social, emotional, and cognitive areas of development all play a role in a child's early growth (Singh, 2022). It is the most important time to stimulate their motor abilities (Almeida et al., 2016). The development of the nervous system begins at this time so the stimulation will greatly help accelerate the development of motor capabilities (Sutapa et al., 2021). Motor development is strongly influenced by the brain organ, through play there is stimulation of muscle growth when children jump, throw, or run.

Movement skills in early childhood are very useful for strengthening connections between nerve cells. Muscles function as human motor mobility devices regulated by the nervous system, so it is often said that muscles and nerves are the functional units of motion systems in term of physiology (Moghaddaszadeh & Belcastr, 2021). If children are deprived of the opportunity to gain experience in these movement skills, then the connections between nerve cells fail to be developed due to lack of movement so that children may not be able to develop their brain's ability to carry out a command, therefore the need for proper stimulation and basic movement skills is very necessary. The activities that can be done to stimulate motor intelligence in children are dancing, role playing, drama, physical exercise, pantomime, various movements such as gymnastics (Yudanto, 2023).

The material presented in kindergarten education, especially to improve motor skills, includes through movements and songs, namely gymnastics. Because through motion and song is one of the most enjoyable activities for kindergarten children. (Galih Dwi Pradipta, 2017) argues that, "through physical activity, movements and songs can make a major contribution to balancing the brain of early childhood, by combining physical activity (sports) and activities listening to music or singing, can help brain development. Children follow songs by moving all limbs, can be useful for stimulating the functioning of both the left and right hemispheres of the brain ". Children have sensitivity to rhythm, pitch, various sounds, as well appreciate creative (Untung et al., 2023).

Gymnastics is the physical activity with the richest movement structure. From its characteristics and movement structure, gymnastics can be said to be a suitable physical activity to be used as a physical education tool, because it is considered capable of contributing to the quality of motor development and physical quality. Gymnastics movement stimulates the development of physical fitness components, such as muscle strength and endurance from all parts of the body. Therefore, physical fitness is an essential indicator of a person’s health status as well as the quality of life (Montosa et al., 2018). Motion characteristics are very meaningful

in increasing understanding of the principles of motion mechanics and natural laws that act on a moving body.

One of the physical motor activities for children that is rich in motion structure is acik (anak ceria dan kreatif) gymnastics. Acik (cheerful and creative children) gymnastics is a rhythmic gymnastics specifically designed for early childhood with the theme of transportation, profession, and myself. In this gymnastics there are elements of basic movements in it, namely locomotor, non-locomotor and manipulative. Basic movement skills are a predictor of success in physical activity (Oktarifaldi et al., 2024). Movement skills are an essential element of a child's overall development and play a significant role influencing physical, psychosocial, and mental health (Bremer & Cairney, 2018).

Fundamental Movement Skills (FMS) is a term used to describe a group of motor behaviors which include locomotor, object manipulation and stability skills – for example, running, throwing and balancing-on-one- leg respectively (Eddy et al., 2021). Complex movements needed for sports participation and physical activity require a level of motor competency, defined as the ability to perform gross motor skills (Burns et al., 2022). One of the basic movement exercise stimulus that can be done is through rhythmic gymnastics. Through gymnastic movements children will be free to express so that children will find new experiences and by following the rhythm children are more free to move, imagine and dare to face new challenges.

According to the opinion of (Mahendra et al., 2023) rhythmic activity as one of the scopes of physical education, sports, and health subjects is a series of movements that are chosen deliberately and systematically, carried out by following a regular rhythm or beat which is also selected so that it fulfills certain rhythmic provisions, continuity, and duration. The approach in rhythmic movement activities should emphasize a creative and flexible methodology that places the process of movement and self-expression to the rhythm more important than the resulting movement pattern. according to the opinion of (Faridah et al., 2022) the rhythmic activity, three things must be considered, namely flexibility, continuity, and accuracy with the rhythm. Movements in rhythmic gymnastics aim to relax the body's muscles, expand joint motion, eliminate muscle injuries, and improve health and physical fitness.

Stimulating the ability of students is an important thing that teachers do. This can be done through activities that include rhythmic motion. The application of rhythmic awareness theory provides benefits for planning educational programs as an effort to realize the potential that exists in students according to their abilities and make the learning process more active (Meikahani et al., 2022). young children have an innate love for music and are good at

interpreting it. And rhythmic activities can give children a sense of freedom, so that participating in music games into a play process (Liu, 2023).

Kindergarten of Pembina 4 Palembang is one of the early childhood education institutions. Based on the results of observations and observations, there are several problems related to motor development in physical activity with motor physical material. This can be seen from data on children's motor skills at Kindergarten of Pembina 4 Palembang. Of the 20 students, only 23% were developing according to expectations, only 23% were starting to develop and 44% had not yet developed. Several problems were found, namely the lack of children's movement activity, especially in the series of manipulative movements. , focus on providing movement learning materials that are not yet based on movement learning stages. So there is a need for physical activity to improve children's physical motor skills through correct basic movement activities, so that learning goals in developing children's basic movements are achieved.

Physical activities that can be done through movement and songs. Elements of movement and song can be done through rhythmic gymnastics activities. (Galih Dwi Pradipta, 2017) believes that through physical activity movement and song can make a big contribution to balancing the brain of young children, by combining physical activity (exercise) and the activity of listening to music or singing, it can help brain development. Children follow the song by moving all their body parts, which can be useful for stimulating the functioning of both hemispheres of the brain, both the left brain and the right brain. The benefits of rhythmic gymnastics for kindergarten children are the main activities that are most useful for developing physical components and motor abilities (Mahendra et al., 2023).

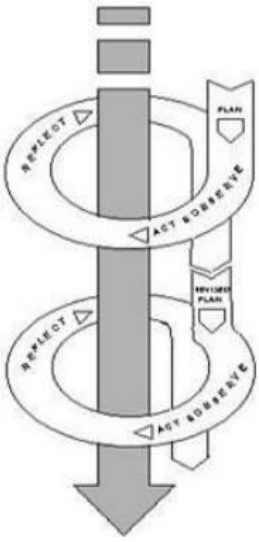
The rhythmic gymnastics that can be done is ACIK (Cheerful and Creative Children) gymnastics, manipulative movements (Sukmawati et al., 2020) ACIK manipulative movements in the form of rhythmic gymnastic consisting of a series of manipulative movements for children aged 5-6 years can improve basic movement skills. ACIK gymnastics, manipulative movements using a ball as a medium in its implementation, namely a series of movements that have 5 themes, namely myself, transportation, profession, animals and the natural environment with stages of movement according to the characteristics of children aged 5-6 years. This situation has an impact on children's gross motor skills, especially children's motor skills are limited and not programmed, so that children's motor skills develop only naturally according to the child's own condition. Based on these problems, the researcher

conducted a study with aims improving motor skills through manipulative motion of ACIK gymnastics (cheerful and creative children) in early childhood"

METHODS

This research is a collaborative classroom action research with the development of the kemmis and mc taggart model, which is a spiral model which means that the learning cycle is carried out repeatedly and continuously, so the longer the ability increases, where in the implementation of classroom action research includes planning, action and observation, and reflection and improvement of plans (Suharsimi Arikunto, Suhardjono, 2021). This research was conducted in may 2023/2024 academic year. The research place was held at State Kindergarten Pembina 4 Palembang. The research subjects in this study were Kindergarten of Pembina 4 Palembang, consisting of 20 children consisting of 12 girls and 8 boys.

The action research conducted consisted of two cycles, each of which was carried out in three face-to-face sessions. The action plan in each cycle in this study is divided into four stages, namely: planning, acting, observing, and reflecting. Before entering Cycle I, a pre-action observation was conducted to identify problems. The following is a research procedure in accordance with the classroom action research model developed by the Kemmis and Mc Taggart model:



Fugure 1. Research design according to Kemmis & Mc. Taggart (Asrori & Rusman, 2020)

Description:
Cycle I:
1. Planning
2. Action and
Observation
3. Reflection
Cycle II:
1. Planning
2.Action and Observation
3. Reflection

The following are the stages or design of classroom action research according to (Suharsimi Arikunto, Suhardjono, 2021):

1) Planning

In the planning stage, will prepare and make observation sheets that will be used in research, make daily activity plans that are arranged according to the theme and approval from Kindergarten of Pembina 4 Palembang.

2) Action

Carry out the planning that has been made before. In this study, researchers collaborated with class teachers in the learning process, researchers as observers and recorded the results of actions taken by children. The actions taken are based on the daily activity plan that has been made.

3) Observation

Observations are made to find out the problems that occur in the classroom. In this observation, the researcher or observer is directly involved in learning, so that he can find out more deeply the problems that occur in the classroom. The researcher observes the actions taken by filling in the observation sheet or check list that has been prepared previously. Documentation collection was also carried out through taking photos and videos during the action.

4) Reflection

Reflection is done to evaluate the results of the data obtained during action observation. Teachers and researchers provide an assessment of the rough data results of the action and analyze the obstacles in learning. If a solution has been found to overcome these obstacles, reflection carried out to overcome obstacles in cycle 2. If a solution has been found to overcome these obstacles, then reflection is carried out to overcome these obstacles in cycle 2.

Data, Instruments, and Collection Techniques

1. Observation

Observation is a monitoring technique by observing the target of measurement, using an observation sheet or observation sheet that has been prepared previously (Munadi, 2019). Observation is carried out during the learning process to see directly how the child's ability to perform manipulative movements of ACIK (Cheerful and

Creative Children) gymnastics. In carrying out this observation technique, the researcher uses an instrument in the form of an observation sheet.

Tabel 1. Control Object sub test

Skill	Test 1	Test 2	Skor
1. Hit the ball still			
2. Silent dribble			
3. Catch			
4. Kick			
5. Throwing up			
6. Menggelinding bola			

2. Documentation

Documentation is a search for data about variables that can be in the form of notes, pictures, videos, which can be used as data in the observation results. The method used in this study is in the form of daily activity plans, photos of student activities that can describe child development.

3. Basic Movement Skills Instrument

Data was collected using the TGMD 2 basic movement skills test :

Tabel 2. With the test grid as follows

No	Skil	Trial 1	Trial 2	Score
1	Run			
2	Galop			
3	Jump			
4	Leap (long jump)			
5	Horizontal jumping			
6	Glide			
7	Hitting the ball still			
8	Dribble still			
9	Catch			
10	Kicking			
11	Throwing up			
12	Rolling the ball			

Data Analysis Technique

The data analysis used in this research is descriptive qualitative and quantitative, namely describing data using sentences to obtain clear and detailed information while quantitative descriptive to determine the percentage of children's motor skills. The results obtained from learning observations will be analyzed, as material to determine the next action. In addition, all data used to draw conclusions and actions taken use the formula proposed by (Noviana et al., 2022).

$$NP = \frac{R}{SM} x\ 100$$

Description:

NP: percent value sought / expected

R: raw score obtained

SM: ideal maximum score of the existing value 100% : constant

Explains that the successful implementation of this class action research is characterized by the presence of suitability presentation criteria, namely (Suharsimi Arikunto, Suhardjono, 2021)

1. Conformity criteria (%): 0-20 = Very Poor
2. Criteria suitability (%): 21-40 = Deficient
3. Criterion suitability (%): 41-60 = Fair
4. Criterion suitability (%): 61-80 = Good
5. Criterion suitability (%): 81-100 = Excellent

RESULTS AND DISCUSSION

Based on the results of the initial data before being given action, it can be explained that the completion obtained by Kindergarten of Pembina 4 Of the 20 students, only 23% were developing according to expectations, only 23% were starting to develop and 43,99% had not yet developed. So classroom action is needed to improve children's basic movement skills, namely through gymnastics ACIK manipulative movement. The following is a table of the results of the average percentage acquisition in pre-action, Cycle I and Cycle II.

Table 3. Average Percentage Acquisition Results comparison of pre-action, cycle I and cycle II results

No	Skill	% Pre-Action	% Circle I	% Circle II
1	Run	50.32%	70.09%	85.70%
2	Galop	43.50%	65.54%	79.89%
3	Jump	64.35%	79.51%	89.05%
4	Leap (long jump)	35.41%	60.10%	75.64%
5	Horizontal jumping	54.01%	80.65%	90.01%
6	Glide	27.80%	75.34%	86.74%

No	Skill	% Pre-Action	% Circle I	% Circle II
7	Hitting the ball still	65.24%	81.05%	84.65%
8	Dribble still	32.85%	78.43%	89.60%
9	Catch	42.65%	69.51%	90.72%
10	Kicking	43.45%	80.90%	87.04%
11	Throwing up	68.30%	85.78%	89.37%
12	Rolling the ball	52.30%	79.80%	98.47%
	Jumlah	**43.99%**	**68.91%**	**79.03%**

Discussion

Based on the results of research that has been carried out in the two cycles mentioned above, it is obtained that children's motor skills through manipulative movements of ACIK (Cheerful and Creative Children) gymnastics have increased and the success in research is evident from the pre-action results of 43.99% which increased to 68.91% after taking action in cycle I. Because it is still considered not optimal, there are still children who have not significantly improved, then action is taken in cycle II so that it increases to 79.03%. Because it is still not optimal, there are still children who have not significantly improved, then action is taken in cycle II so that it increases to 79.03%.

Reflection conducted by teachers and researchers to discuss what improvement plans should be done next. Cycle II can increase due to improvements made from Cycle I. Cycle II learning in improving early childhood motor skills through manipulative movements of ACIK (Cheerful and Creative Children) gymnastics is a gradual learning activity. An important characteristic of learning movement skills is that everyone seems to have to go through different stages as they acquire skills. The following are the stages of learning motion skills according to (Fadare et al., 2023) Fitts and Posner's motor learning theories, known as the three phases, consider practice time and attentional challenges. As for one way to develop kinesthetic intelligence is by the application of rhythmic gymnastics, namely ACIK (Anak Ceria dan Kreatif). ACIK (Cheerful and Creative Children) gymnastics is a series of exercises arranged by the author that are adjusted to the characteristics of kindergarten students and prioritizes basic elements of motion such as locomotor, non-locomotor and manipulative (Sukmawati et al., 2020). Learning the manipulative movements of ACIK (Cheerful and Creative Children) gymnastics is in accordance with the theory above with the stages of cognitive learning, associative, automation. A process where

the stages of learning in accordance with the concept start from understanding with their cognitive abilities in memorizing ACIK gymnastics movements, then to the associative stage students do by trying to practice movements with a few mistakes and then at the autonomous stage students are used to mastering movements with automaticity with long training. in motion learning so that the goals of physical education are achieved.

Rhythmic motion activity is one of the most enjoyable learning materials when done with various variations and combinations of concepts (Herlambang, 2017). The success of the motion learning process will be largely determined by the existence of factors that can improve motion skills including time setting, setting the sequence of learning materials, setting the learning environment, and the level of student ability, and age level. Factors that need to be considered in the motion learning process include. Learning process factors, meaning how students process information so that there is automation in performing movements, personal factors which include: sharpness of thinking, perception, intelligence, physical size, experience, emotions, capabilities, motivation, attitudes, gender, and age, and situational factors which include: natural and social situations (Metekohy et al., 2022). Children who have the ability to good basic locomotor movements will be able to help show a good attitude and be skilled in solving problems experienced by these children in everyday life (Widiarti et al., 2021). ACIK gymnastics can be used as an alternative in learning rhythmic gymnastics or as a stimulus in children's motor development, especially in manipulative movements. so that learning objectives can be achieved in accordance with the child's physical growth and development.

CONCLUSION

Based on the results of the research above, it can be concluded that children's motor skills increase through manipulative movements of ACIK (cheerful and creative children) gymnastics. Based on the results of classroom action research carried out in two cycles, each cycle consisting of two meetings, it can be concluded that through ACIK manipulative gymnastics, manipulative movements can improve the basic movement skills of children aged 5-6 years at the Pembina 4 Palembang State Kindergarten. with increasing levels of mastery achieved by children. Overall, this research action was said to be successful because it showed that the indicators categorized as complete by the researchers were 75%, while the results of research on children's basic movement abilities showed completeness at 79,03%. So it can be concluded that the manipulative movements of ACIK gymnastics (cheerful and creative children) can improve the motor skills of young children.

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