



# Development of ACIK (Cheerful and Creative Children) Gymnastics Model Through Non-Locomotor Movement for Early Childhood

Noviria Sukmawati<sup>1</sup>, Selvi Melianty<sup>1</sup>, I Bagus Endrawan<sup>1</sup>, Dewi septaliza<sup>1</sup>, Oktariana Oktariana<sup>1</sup>

<sup>1</sup>Universitas Bina Darma, Jenderal Ahmad Yani No.3 South Sumatera 30111, Indonesia  
noviria.sukmawati@binadarma.ac.id

**Abstract.** The purpose of this research is to develop a product in the form of an ACIK (Cheerful & Creative Children) gymnastics model to improve the basic non-locomotor movement skills of early childhood. That research is based on Borg and Gall's R&D model. This research involved early childhood (5-6 years) in Belitang city, East OKU Regency, with a total of 15 small-scale respondents and 45 large-scale respondents. This research design is a pretest-posttest control group design. This researcher used the TGMD 2 test instrument. The data analysis technique used in this study is qualitative and quantitative descriptive statistics. The results of the effectiveness test of ACIK (Cheerful & Creative Children) gymnastics have proven effective in improving the basic non-locomotor movement skills of early childhood.

**Keywords:** Fundamental movement, Non-locomotor, ACIK gymnastics, Early childhood.

## 1 Introduction

Movement activities in early childhood are very useful for strengthening connections between nerve cells. movement activities and songs contribute greatly to the development of kindergarten children's brains. Kindergarten children have the ability to remember memorization of course with good stimulation will be beneficial for children. That through physical activity, such as movement and singing, it may play a substantial role in helping to stimulate the brain development of early childhood by combining sporting activities with listening to music or singing [1].

Activities such as dancing and singing for young children may help to boost both hemispheres of the child's brain [2]. Through movement and song, which is one of the most fun activities for kids in kindergarten. Activities like dancing and singing contribute greatly to the brain development of young children, as well as having a positive effect on developing their brains. Music and songs are beneficial for early childhood development, such as improving the ability of children's brains, enhancing their memory, assisting with social interactions, building up self-confidence. Develop a sense of patience, help the children to form relationships with those around them, teach discipline and inspire creativity.

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Music is perceived not only as an auditory signal, but also as intentional, hierarchically organized sequences of expressive motor acts behind the signal; and that the human mirror neuron system allows for corepresentation and sharing of a musical experience between agent and listener [3]. So, from a cognitive, emotional and psychomotor point of view, music has been the most useful tool for children's creativity. Let the children express themselves in music. 'Cause in children, there's something new to be made with music. Of course, children in kindergarten have the ability to memorize a certain number and of course good stimulation will benefit them.

Proper physical activity will spur optimal child development, one of which is by doing gymnastic activities. The development of basic movements in gymnastics must have good skills and physical strength. The specific motor skills that allow the assessment of different types of gymnastic strength are of particular importance in the selection of tests [4]. The principle of motor development in children who start with kindergarten is that there are physical and psychological changes, according to their growth period.

ACIK (Cheerful and Creative Children) non-locomotor gymnastics is a series of gymnastic movements that combine several series of non-locomotor rhythmic gymnastic movements that are in accordance with fundamental movement skills by combining several themes of activities tailored to the development and characteristics of children aged 5-6 years, namely the theme of myself (warm-up movement), the theme of transportation (core movement 1), the theme of professions (core movement 2), the theme of animals (core movement 3) and the theme of nature around (cooling movement) with the aim of generating creativity and expression movements so as to achieve the goals to be expected.

The teacher's role plays a very important role in the implementation of physical motor education because it acts as an intermediary when teaching at kindergarten. Based on its characteristics and movement structure, gymnastics is very suitable to be designed and developed as a medium for learning physical motor activities. 'Cause there are plenty of variations in the structure of motion. The child's repertoire of movements will grow with a number of variations and movement structures. Movements directly affect the growth of learning activities for children within the educational and training process. In children aged between 2-5 years, movement activity is generally developed at this age [5]. Physical fitness will be better if children are involved in a lot of learning. In order for children to develop their motor quality, sufficient movement resources are needed so that they can have a positive impact on improving the nonmotor quality. The provision of arts experiences for children is a way to encourage their creativity and potential. The art experience can be in the form of dancing, playing music, and playing drama [6].

However, the ideal conditions in the field are not as expected. Most of the teacher's educational background is still outside the field of kindergarten, lack of movement literacy in kindergarten children. Physical motor material, especially basic motion material provided, is not optimal. Thus, there is a need for innovative learning, especially in the implementation of physical motor activities so that children can move correctly, understand and perform basic movements correctly, and develop a motion learning program, namely; based on learning objectives, the level of growth and development of children, physical components, and adapted to the world of children.

Based on these problems, the researcher conducted a study with the title "ACIK (Cheerful and Creative Children) gymnastics development model through non-locomotor movements for early childhood". It is hoped that the product of this research will be able to bring great benefits to the world of early childhood education in improving children's basic movement skills. Because basic movement skills are one of the indicators that must be developed to optimize the development of children's motor aspects. Basic movement skills are the foundation for abilities related to children's physical activity.

## 2 Method

This type of research is development research. The steps used in this study refer to the theory of [7]. This research was conducted in At-Taqwa Belitang Kindergarten, Sidomulyo State Kindergarten, and Qurrota ayun Belitang Kindergarten. This researcher used the TGMD 2 test instrument from [8]. The data analysis technique used is descriptive, which is a percentage used to percentage data collection on expert evaluation, small group trials and large group trials. While the effectiveness test was carried out using quantitative analysis techniques, by conducting trials in experimental classes and control classes. with a pretest-posttest control group design [9].

## 3 Results and Discussion

This research produces a product in the form of a series of non-locomotor ACIK (Cheerful and Creative Children) gymnastics movements by combining several themes taught for children aged 5-6 years, namely the themes of myself, transportation, professions, animals and the surrounding environment. The following are the product results of the ACIK (Cheerful and Creative Children) gymnastics development model through non-locomotor movements for early childhood.

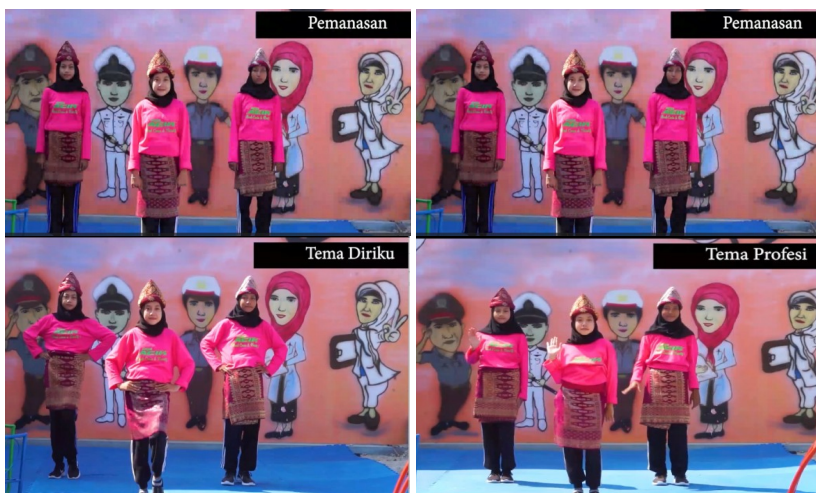
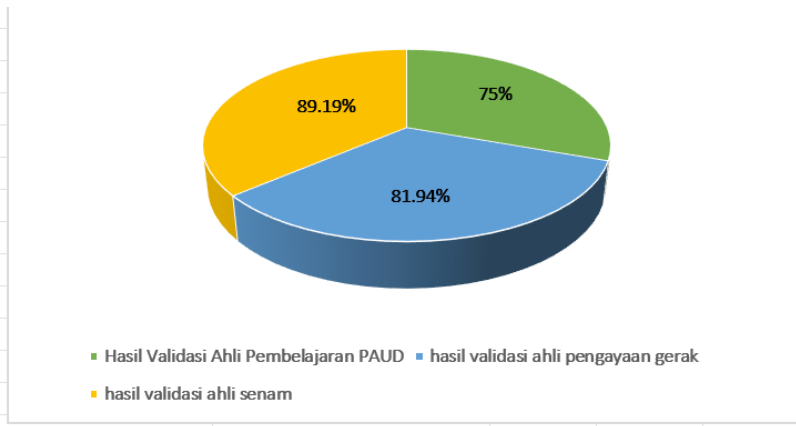


Fig. 1. ACIK Non-Locomotor Gymnastics Product

### 3.1 Expert Validation Results

The ACIK (Cheerful & Creative Children) gymnastics development model product was evaluated by several experts including motion enrichment experts, PAUD learning experts, and gymnastics experts. Then the experts assess or validate the feasibility of the initial product model that has been developed. The following is a pie chart of the percentage of validation results from experts on the development model of non-locomotor ACIK (Cheerful & Creative Children) gymnastics:



**Fig. 2.** Pie Chart of Expert Validation Results

Based on the validation of PAUD Learning, MotionEnhance and Gymnastics Experts as a whole, ACIK (Cheerful & Creative Children) gymnastics model product for children age 5,6 may be conducted in subsequent stages such as small groups or full group studies with notes after changes to the Expert's recommendations. A value of 82.04% was achieved and deemed viable for further tests at the next stage, which included smaller scale trials or large scale testings, according to validation results by experts.

### 3.2 Field Trials Results: Small and Large Scale Tests

The small-scale trial involved research subjects, namely At-Taqwa Belitang Kindergarten children totaling 15 children. The small-scale trial was a test of the feasibility and acceptability of the ACIK (Cheerful & Creative Children) gymnastics model product in testing the correctness of the movements of children aged 5-6 years in performing the ACIK (Cheerful & Creative Children) gymnastics sequence. The results of the small-scale trial showed that the ACIK (Cheerful & Creative Children) gymnastics model as a whole was feasible to use because all child test subjects were able to follow and carry out a series of gymnastic movements arranged by researchers tailored to children aged 5-6 years. Based on the results of the trials conducted, it shows that the ACIK (Cheerful & Creative Children) gymnastics model can be continued on a large scale trial involving a larger trial subject.

**Table 1.** Small Scale Trial Evaluation

Development Procedure	Research Findings
The results of the phase I (small group) trial (n = 15 children) of the instrument consisted of ACIK gymnastics movements consisting of components namely warm-up movements, transitional movements, core 1, core 2, core 3 and cooling movements.	<p>From the phase I trial (small group), feedback was obtained that:</p> <ol style="list-style-type: none"> <li>1. In the movement of spinning by running, many are still not focused on doing the movement.</li> <li>2. The use of tools in the implementation of gymnastics should use a ball that is safe for children</li> <li>3. The input is improved according to the suggestions and is ready to be used for field trials.</li> <li>4. It is necessary to provide direction and guidance so that in the implementation of children's movements there are no injuries such as children colliding or falling.</li> <li>5. There needs to be a change in the tools used, namely in the form of a ball with a rough surface.</li> </ol>

Furthermore, the ACIK (Cheerful & Creative Children) gymnastics model product was tested on a large scale. The research subjects in this large-scale test involved N = 60 kindergarten children consisting of 3 schools, namely At-Taqwa Belitang Kindergarten, Sidomulyo State Kindergarten, and Qurrota ayun Belitang Kindergarten. In the results of this large-scale test, overall the ACIK (Cheerful & Creative Children) gymnastics model product obtained the results that children can do all the rangakain movements properly and correctly. Nonetheless, there are a few field notes to be used as an instrument of correction and evaluation in this substantial scale test, particularly with regard to the use of model products on broad scales for gymnastics activities. Here are some notes that have been collected including; a) in general, the ACIK (Cheerful & Creative Children) gymnastics model product can be applied in learning, because it really helps children in the learning process, learning interactions, and children's learning motivation, overall the model can be applied and used by all subjects on a large scale, b) there are several models that need to be considered in its implementation, c) order and discipline must always be considered. It is thus concluded that the entire ACIK (Cheerful & Creative Children) gymnastics model can be used for learning. In order that in the effectiveness test, this model product of ACIK (Cheerful & Creative Children) gymnastics can be continued.

### 3.3 Effectiveness Test Results

The hypothesis testing is carried out in the absence of two matched sample tests, namely an Independent Sample Test. independent t-test is a comparative test or different test to determine whether there is a meaningful mean or average difference between 2 independent groups with interval / ratio data scales. Two independent groups

in the present case have not been tied together, meaning that a data source is derived from different subjects [10].

T value = 5.427 and Sig value in the independent sample test output results shown above. (2-tailed) or p-value = 0.000 < 0.05 or  $H_0$  is rejected. The results from TGMD 2 tests in children were therefore significantly different when the ACIK (Cheerful & Creative Children) gymnastics model was used. In addition, in order to establish the efficiency of applying the ACIK (Cheerful & Creative Children) gymnastics model a N-Gain Score test was carried out. The following are the results of the N-gain Score Percent test calculation:

**Table 2.** Result of N-Gain Score Test

Class	Mean	Minimum Value	Maximum Value
Experiment	70.02 %	40 %	22.40 %
Control	48.13 %	80 %	65.00 %

The overall Ngain score in the experimental class stands at 70.02%, including an 'efficiently efficient' category, according to the results of this test. With a minimum N-gain score of 40% and a maximum N-gain score of 80%. In the meantime, average Ngain Score of 48.13% for a control group was also found in categories other than "less efficient". With a minimum N-gain score of 22.40% and a maximum N-gain score of 65%.

## 4 Conclusion

Research results in these areas indicate that ACIK (Cheerful & Creative Children) gymnastics is proven to be effective at strengthening the fundamental muscle movements of children, which are non-locomotor.

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