



## Development of ELOK (Educational Train Locomotive) Gymnastics in Early Childhood

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### Abstract

This research focuses on the development of ELOK (Educational Train Locomotive) Gymnastics aimed at early childhood. ELOK Gymnastics is designed to increase children's gross motor activity through a series of fun and structured movements. The development of this exercise follows the ADDIE model which consists of five stages: analysis, planning, development, implementation and evaluation. The research involved an initial survey of 10 HIMPAUDI teachers in Sukabumi District to understand the needs and expectations of early childhood gymnastics. The results showed that ELOK Gymnastics was effective in improving children's motor activity and was well received by teachers and students. The implementation of this exercise is expected to be a positive contribution to early childhood development and provide a reference for future research and development of the exercise.

Keywords: ADDIE, Early Childhood, ELOK Gymnastics

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## **A. Introduction**

Education is the basis for everyone to gain formal knowledge. Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have a formal knowledge. (Kurniawan & Hasan, 2021). The Indonesian government has also required every citizen to pursue education as stipulated in the 1945 Constitution. As a society that knows that education is important, of course, we want to realize that every citizen can pursue education and education starts from an early age. Because, early childhood is a very important period in the development of children.

One aspect of child development is the motor aspect, including gross motor skills. (Susilo, 2019). Gross motor is a body movement that uses large muscles, either part or all of the limbs. (MAHMUD, 2019). Routine activities that can be done at school to support early childhood development can be implemented by moving dynamically, and following the rhythm to attract early childhood interest. Morning exercise is a physical activity that has long been an important part of many people's daily routines. (Kurniawan & Hasan, 2021). It

involves a series of movements that are generally performed in the morning with the aim of maintaining physical health and general well-being (Sari et al., 2017)

Based on an initial survey conducted by the author to 10 teachers who are members of HIMPAUDI (Association of Indonesian Early Childhood Educators and Education Personnel) Sukabumi District, almost all of them stated that gymnastics for PAUD age is very important to be implemented. From the explanation of this background, the author intends to contribute to the field of gymnastics by making the development of early childhood gymnastics because according to information from sources obtained by the author, the last HIMPAUDI gymnastics was made about 3 years ago. This gymnastics will be called ELOK Gymnastics (Train Locomotive Education). The author took the train locomotive theme because the locomotive is a real picture of leadership. Therefore, children are invited to learn to be leaders, because basically every human being is a leader.

The model used for this research uses the ADDIE model consisting of five steps, namely: (1) *analyze*, (2) *plan*, (3) *develop*, (4) *implement*, and (5) *evaluate*.

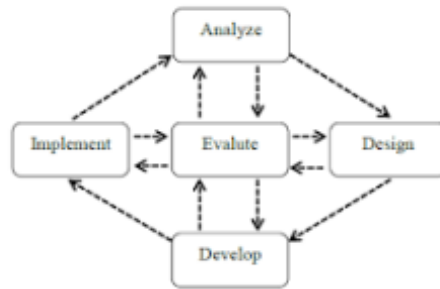


Figure 1. ADDIE Model

Source: (Putra et al., 2019)

Various education and training programs, including physical programs such as early childhood gymnastics, have used the ADDIE model. Relevant research shows that this model works well to create organized and comprehensive learning. The ADDIE model allows for the best customization from the design stage to evaluation, which produces results that meet the needs of students, according to (Destriana et al., 2018). In addition, additional research conducted by (Herlina & Suherman, 2020) found that using the ADDIE Model when creating sports programs for early childhood can help increase children's active participation. This is because this model allows for a planning process that takes into account both the physical and psychological aspects of children. In addition, research by (Mulyadi & Nikon, 2019) showed that the ADDIE approach can be an effective and fun way to learn, especially in early childhood, with activities that stimulate their gross motor skills holistically.

## B. Research Methods

This *research* method uses the *research development* method which aims to present educational products in the form of material objects such as textbooks and teaching films. This research was conducted at PAUD Mawar Kadudampit and involved several validators to test the feasibility of this research and one of the validators was a member of the Early Childhood Educators and Education Personnel Association (HIMPAUDI) Kab. Sukabumi.

This development procedure uses the ADDIE Model:

### 1. *Analyze*

The analysis stage in the development of ELOK gymnastics is carried out to ensure that the gymnastics developed is in accordance with its purpose, namely to improve early childhood motor skills. The development of this exercise is tailored to the ability of the research target, namely early childhood.

### 2. *Design*

At this stage, the selection of movements, music, rhythms, rhythms, and motion variations that adjust to the

abilities of the targets and targets of the research developed.

### 3. *Development*

At this stage the author compiles the gymnastics material, song material that will be used, and compiles a process plan from the beginning until the ELOK gymnastics is realized. When compiling gymnastic materials and songs the author involves experts in the fields of music, language, physical education and HIMPAUDI.

### 4. *Implementation*

At this stage, ELOK gymnastics is implemented to the target participants, namely early childhood. The main focus is so that the implementation of the ELOK exercise program can be realized effectively and efficiently.

### 5. *Evaluation*

The evaluation stage aims to assess the quality of the product and the teaching process, both before and after the implementation stage. Determining evaluation criteria, selecting appropriate evaluation tools, and conducting evaluations are common procedures associated with the evaluation stage.

In collecting data, researchers used in-depth interview techniques, rating scales, observation sheets, and physical fitness tests. Then, the data was analyzed using descriptive quantitative analysis techniques.

## **C. Results and Discussion**

The results of this study are described using the ADDIE Model, as follows:

### 1. *Analyze*

The ELOK (Educational Locomotive Train) gymnastics model is one of the choices of gymnastics models that can be used to improve and develop the motor system in children, especially early childhood, by presenting very simple movements accompanied by a very cheerful rhythm, so that in addition to increasing agility, focus and fitness for early childhood, it also trains to improve gross motor skills in children. Children.

### 2. *Design*

Senam ELOK is designed in the form of gymnastics that can be followed by early childhood using movements that are easy to do, suitable music and rhythm, and language that is easy to hear and sing. Including the song used is also one of the designs of the development of ELOK Gymnastics, this song is entitled ELOK Gymnastics, the lyrics were made by researchers, the music was created by Uziel with arrangements from TR Record, and sung by Nurkamila Zahra and researcher Ella Nurlaelasari.

### 3. *Development*

At this stage, feasibility validation was carried out from all validators and obtained an average score of 41 out of a

maximum score of 50 with a percentage of 82%.

#### 4. *Implementation*

At this stage, the awall product was revised from the suggestions and input provided by the validators, then a small-scale test was conducted at PAUD Mawar Kadudampit to determine the level of implementation. The validators provided some important inputs for the development of ELOK gymnastics during the analysis stage. According to Cucuharyati, S.Pd., gymnastic movements should be focused on improving early childhood motor skills. Dedi Ruswandi, S.Pd., emphasized that choosing suitable and fun music for children is very important. According to Lia Yuliawati, S.Pd., movements should be simple and easy for students to follow. Meanwhile, F. Eva Awalia, S.IP, suggested that children use language that is fun and easy to understand.

At the design stage, the validator's input was more specific regarding the adjustment of gymnastic elements. Cucuharyati, S.Pd., stated that the movements should be adjusted to the abilities of early childhood. Dedi Rustandi, S.Pd., suggested that the music be designed according to the tempo and ability of the children. Lia Yuliawati, S.Pd. emphasized that

movements should be simple to make it easier for children to follow gymnastic activities. F. Eva Awalia, S.IP, again emphasized the importance of using language that is easily understood by children.

Quantitative data from the validation results show variations in the assessment of the validators. Validator I gave a score of 33 (66%) which was categorized as "Moderate". Validator II and Validator III gave high scores, 49 (98%) and 45 (96%) respectively, categorized as "Excellent". Validator IV gave a score of 38 (74%) which is categorized as "Good". Overall, the average assessment result was 41, with a percentage of 82%, which falls into the "Good" category.

The comments and suggestions given by the validators focused on improving the movements and materials. Validator I suggested that the stretching movements be rearranged, starting with the right foot, and suggested simplifying the position of the feet in the warm-up movements. Validator II gave positive feedback on the overall set of exercises, stating that the music, movements and tempo were good. Validator III suggested that the gymnastics manual be made clearer. Validator IV also recommended the creation of a guidebook to help with the

implementation of the exercises. The overall picture of this evaluation shows that the designed ELOK gymnastics has met most of the validation criteria with

positive feedback from the validators, although some improvements are still needed to enhance its implementation.



**Figure 2 ELOK Gymnastics Training**

Source: Data processed (2024)

## **Discussion**

This study developed ELOK (Educational Train Locomotive) gymnastics using the ADDIE model (*Analyze, Design, Development, Implementation, and Evaluation*). This gymnastics aims to improve gross motor skills of early childhood through simple and fun gymnastic movements. As a result of expert validation, this model overall meets the eligibility criteria, with an average score of 41 out of a maximum of 50, or equivalent to 82 percent, and is included in the "Good" category.

Other studies have shown that physical activity, such as specialized gymnastics for early childhood, can help gross motor development. Research conducted by (Zulraflī & Kamarudin, 2021) emphasized how important basic movement and physical activity are to help children's motor growth.

In addition, research conducted by (Sabarudin, Bangun, Y. Sunarno, Agung. Damanik, Amri, 2023) found that interventions with music and rhythmic movement can improve preschoolers' attention, fitness, and motor skills. ELOK gymnastics creates an interactive atmosphere and supports motor learning by combining elements of upbeat music and simple movements.

This research is innovative in several ways. First, the train (locomotive) theme is a major attraction as it adds a creative element that can capture children's interest and make them more interested in exercising. This theme not only offers entertainment but also creates systematic movement patterns, similar to train movements, which help children become more coordinated and balanced. Secondly, developing the song

"Senam ELOK" with a customized, professionally made arrangement adds additional value, as music is often an activator that encourages children to move and respond positively. Lastly, this study contributes an easy-to-understand guide for educators and parents, which includes detailed instructions for implementing the exercises, ensuring that the intervention can be carried out with consistency.

Overall, ELOK Gymnastics is a sports program and educational tool designed with children's development in mind. The book on motor learning strategies for early childhood is enriched with innovations in the design and implementation of this program. It can also be used as a model for future research or development of similar programs.

#### **D. Conclusion**

Based on the explanation of the results of this ELOK gymnastics development research. In conclusion, the ELOK exercise model for early childhood is declared feasible. Then, based on the input, improvements are still made for the sake of the ELOK exercise model in the hope that this ELOK exercise can be implemented properly for early childhood schools.

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#### **F. Conflict of Interest**

No conflict of interest

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