

Fantasy Gymnastic as an Active and Imaginative Learning Model to Children's Gross Motor

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Abstract—Early childhood has excessive energy that needs to be dispensed exactly, one of them is by involving physical activities. Gross motor is an important part of the growth process and ultimately plays a role in one's ability to lead a physically active life, one active learning model involving children is fantasy gymnastic. Fantasy gymnastic is a form of imitating gym that can be composed using motion and song or story. The empirical finding indicates that the children's motor physical learning is mostly focused on fine motor development, while the gross motor is less noticeable. Gross motor activity in schools is mostly too focused on indicators and lacks development on these indicators. Learning also tends to be less varied (monotonous) as well as minimal media and rarely integrates into a fun game. This results children easily to feel bored and difficult to be managed because their energy is not maximally dispensed when the learning goes on. The purpose of this study is to describe that fantasy gymnastic is as an active and imaginative model of gross motor learning. The research was quantitative quasi-experimental method using pre-test and post-test approach with one group design on 24 children, gymnastic following the motion and song that had been arranged by teacher in the form of VCD and played through tape recorder. The result shows that the fantasy gymnastic is effective to boost the children's gross motor into 54.2%. The fantasy gymnastic learning model gives a significant influence on the gross motor skills of early childhood as well as makes the learning process more active and imaginative.

Keywords—*fantasy gymnastic, active, imaginative, gross motor*

I. INTRODUCTION

According to Dynamic System Theory [1], to build motor skills, children must be able to perceive something in their environment that motivates them to do something and use their perceptions to move. Motor ability will represent the wishes of the child. For example when a child sees a toy with a wide range, the child perceives in his brain that he wants to play it. Such perceptions motivate the child to do something, that is, moving to take the toy. As a result of the movement, the child manages to get what he is aiming at taking the toy that appeals to him. The theory also explains that when children are motivated to do something, they can create new motor skills, the new ability is the result of many factors, namely the development of the nervous system, the physical ability that allows them to move, the desire of the child who motivates them to move, and environments that support the acquisition of motor skills.

One active learning model involving children is gymnastic, but most teachers only introduce children to rhythmic gymnastics [2]. Where children only follow the movements of teachers and are not given the freedom to express their imagination through the movement, resulting in limited children's creativity. Motor physical learning is more focused on the development of fine motor. Gross motor activities in schools also tend to be less varied (monotonous) as well as minimal learning media and rarely integrate into fun activities, whereas gross motor activity is one of the activities that children love very much. This results when the learning takes place, the children easily feel bored and difficult to be managed because their energy is not maximally dispensed. Various studies show gymnastics can improve gross motor skills, but if the gymnastics given only rhythmic with a movement with the same motion and repeated until the children memorize, this will cause boredom and does not give the children the freedom to imagine or create their own movements based on their imagination. Good sports activities for early childhood have characteristics; (1) multilateral training in the form of a game or a race; (2) stimulating the development of all the five senses; (3) developing imagination/fantasy; and (4) moving to the rhythm/song or story. Based on these characteristics, the fantasy gymnastic already meets the characteristics of a good sport activity and is suitable to serve as a medium to enhance the ability and enrichment of motor motion of children [3]. Therefore, researcher was interested in doing fantasy gymnastic in gross motor lessons, in which the children performed movements in accordance with the motions and songs that were played. Movements can mimic or imagine things, such as: animal movements, windblown plants, natural phenomena, etc., all of which aim to train children's motor skills.

This study focused on fantasy gymnastic form of motion and song, in which there are elements of motion and song as a medium for children consciously or unconsciously perform a variety of motion so that gross motor skills can develop optimally. The function and purpose of gross motor development of children is an effort to improve the mastery of skills depicted in the ability to complete certain motor tasks. Gross motor development is a part of education, especially the experiences of motion on the growth and development of children as a whole [4].

The rest of this paper is organized as follow: Section II describes the literature review. Section III describes the material

and proposed methodology. Section IV presents the obtained results and following by discussion. Finally, Section V concludes this work.

II. LITERATURE REVIEW

There is a decrease in performance in the skills of children's movement of present generation compared to previous generations [5]. Poor motor development and gross motor performance are also characterized by children's overweight [6]. Basically, an early childhood has excessive energy that needs to be dispensed exactly, one of them is by involving physical activities. By learning through the movement, children can learn about themselves and their world. Physical development is closely related to motor development of children, both fine motor and gross motor [7]. Gross motor is an important part of the growth process and ultimately plays a role in one's ability to lead a physically active life. Motor skills are also provisions to acquire efficient motion skills and are further used as a basis for the development of more specialized motor skills. Gross motor mastery is essential for children to have a successful participation in sports, games, and recreational activities [8]. Many children fail to master a variety of gross motor skills resulting in poor self-concept [9]. Gross motor mastery is an important predictor of participation in physical activity during adolescence and adulthood. In childhood, gross motor is associated with a variety of health outcomes, higher fitness, and active physical activity [10].

The notion that a gross motor will develop automatically with the children's age is actually a false assumption [11]. The development of the motor needs help from parents and teachers in terms of what is assisted, how to help rightly, what kind of exercises that are safe for children according to the age stage and how the gross motor physical activities that please the children. Gross motor is formed when the child has good coordination and balance [12]. Gross motor skills are abilities that require the coordination of most of the child's body that require power because they are done by large muscles [13]. Children between 2-6 years of age experience rapid advances in motor skills coarse and fine motor that if studied well will become a habit. Examples of gross motor learning for kindergarten children are throwing and catching the ball, walking on the board (body balance), running with variations (back and forth on one line), climbing and hanging (swinging), jumping over trenches or bolsters, and so on. Indeed, these gross motor movements are practiced by the children under the guidance and supervision of teachers, so it is expected that all aspects of development can develop optimally.

One way for gross motor to developing is to give children the freedom to play freely outdoors. But it does have a difference with structured movement activity, children in structured movement programs are more active and healthier than children who are only allowed to play outdoors [14] but the structured activity of the given movement is competitive and the child must complete every available obstacle . It would be better if the learning is made fun so that the child does not feel frustrated to achieve certain targets, which is why this study suggests fantasy gymnastics to improve children's rough motor skills. Because the child will be free to imagine and express it into movement.

This activity is certainly interesting and appropriately used for early childhood, because children are imitating or playing a certain role that is not organized or deliberately planned by the children themselves and with peers [15]. Of course the imagination and creativity of children cannot be ignored, then the role of teachers is to facilitate children with various activities to improve children's motor skills as well as cognitive and affective skills maximally.

TABLE I. INSTRUMENT OF GROSS MOTOR FOR CHILDREN OF 5 TO 6 YEAR-OLD

Aspect	Indicator	Deficient	Sufficient	Good
Gross motor	Imitating movements of animals, trees, airplanes, and so on.			
	Jumping, hopping, and running coordinately.			
	Performing a coordinated body movement to train flexibility, balance, and agility			
	Coordinating eye-foot-hand-head movements in mimicking dance or gymnastics			

From the Table I above, the method of teaching gymnastic is according to the sequence of heating exercises, core exercises, and cooling exercises. The ways to prepare fantasy gymnastic and its goals include the following:

- Warming up, the purpose of warm-up exercise is to fulfil the children's moving desire, to prepare the children's body temperature to have good heat to receive the next exercise, and to focus the children on physical education learning.
- The core exercises, divided into 5 sections include: body exercises, balance exercises, strength and dexterity exercises, walking and running exercises, and jump exercises. Body exercises are divided into 4 exercises: stretching exercises, training exercises, strengthening exercises, and releasing exercises
- Cooling, aims to condition the children's body temperature into the original body temperature (normal), and to bring children into a calm atmosphere to be ready to be back to the classroom.

III. MATERIAL & METHODOLOGY

This section presents the material used and the proposed methodology.

A. Data

The research was quantitative using quasi-experimental method using pre-test and post-test approach with one group design which meant that the experiment was conducted only in one group (without comparison group). The study subjects were 24 children, 11 boys and 13 girls, and was observed based on

gross motor skills indicators of children aged 5-6 years when pre-test and post-test were given.

B. Method

The research used experimental method by first knowing the gross motor ability of children aged 5-6 years before being given the treatment in form of gymnastic following the motion and song that had been arranged by teacher in the form of VCD and played through tape recorder. Data collection was done through several stages, they were observation, pre-test, treatment for 4 times, then post-test.

Assessment criteria were obtained through the calculation as follows:

$$\begin{aligned} \text{Mean} &= \frac{N_{max} + N_{min}}{2} + N_{min} \\ &= \frac{42-14}{2} + 14 \\ &= 14 + 14 \\ &= 28 \end{aligned}$$

$$\begin{aligned} \text{SD} &= \frac{\text{mean}}{6} \\ &= \frac{28}{6} \\ &= 4.67 \end{aligned}$$

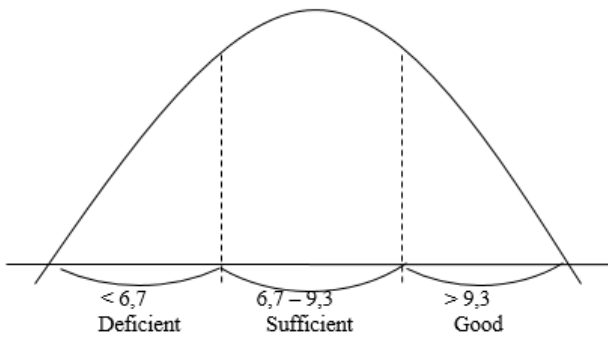


Fig 1.
 Good Category = $X > 9.3$
 Sufficient Category = $6.7 < X < 9.3$
 Deficient Category = $X < 6.7$

Based on the Figure 1 above, the results of the study were categorized Good if the results showed greater numbers than 9.3. the results were categorized Sufficient if they showed the numbers between ranges greater than 6.7 and less than 9.3. whereas the results were categorized Deficient if the numbers showed less than 6.7.

IV. RESULTS AND DISCUSSION

After knowing the methodology and procedure performed on the children in this study, it was found that there were various results and discussion of theories related to fantasy gymnastic in gross motor learning. The results and discussion in this study are presented as follows.

A. Result

To find out how much influence fantasy gymnastics against gross motor child, then tested normality, homogeneity test, linearity test, and hypothesis test Comparison of pre-test and post-test results can be seen in the recapitulation of results and graphs below:

TABLE II. COMPARATIVE TEST RESULT

		Paired Differences					T	d	Sig. (2-tailed)
Pair	Pre-post	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
1		2.9166	1.28255	.2618	3.4582	2.3750	-11.141	2.000	

Based on the Table II, above table shows the average difference of -2.9166 and the value of sig (2 tailed) of 0.000. This means that sig < 0.05 means there is difference of value after treatment and experiencing a significant improvement and indicate that there is difference between pre-test and post-test result.

TABLE III. COMPARISON OF PRE-TEST AND POST-TEST

No	Category	Category	Score	Before		After	
				F	%	F	%
	Good	66.7% - 100%	>9.3	2	8.3	15	62.5
	Sufficient	33.4% - 66.6%	6.7- 9.3	13	54.12	9	37.5
	Deficient	0.5% - 33.3%	<6.7	9	37.5	0	0

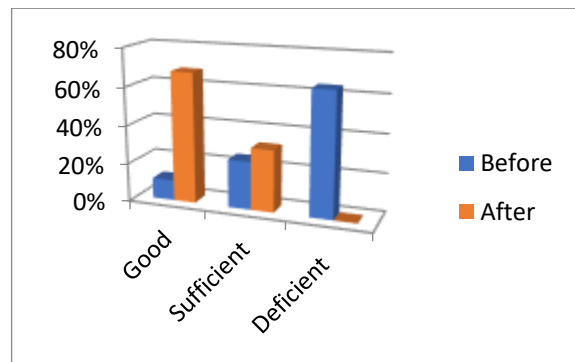


Fig 2. An overview of the gross motor skills ratio of children before and after performing fantasy exercises

Based on the Table III and Figure 2 above, comparison before and after treatment and graphic results, it can be seen that all children experienced gross motor skills improvement, first: it can be seen in children who are in Good category from 8.3% % to 62.5%. Second: Sufficient category from 54.12% to 37.5%, third: Deficient category from 37.5%, to 0%. This means that fantasy gymnastic significantly influenced the gross motor abilities of children.

B. Discussion

The biggest reason to use fantasy gymnastic to improve children's motor is because fantasy gymnastic is believed to have been able to stimulate the growth of children from various aspects of their development. Pre-test results of gross motor skills showed 37.5% of children were included in the Deficient category. Children in age 5-6 years should have already had good gross motor skills and high enthusiasm for activities involving gross motor movements. Various internal and external factors affect the ways of children in term of their gross motor development such as heredity, intelligence, health, food, gender, parenting, cultural, social, economic, stimulation of the environment, and so forth.

After being researched, it was founded that one of the causes of low gross motor abilities of children came from teachers who lacked specific strategies in stimulating children. Then the researcher applied fantasy gymnastic as an active and imaginative learning strategy to improve the gross motor. There were 2 kindergarten teachers involved in the study, treatment was given 4 times to prove that the model done was effective and there was an increase in the results of the gross motor score. The results found that the gross motor score of children increased significantly to 62.5% which was included into Good category. Within 1 month research period, this research was said to be successful because it could improve children's gross motor development. Besides, it could conduct learning more active and fun. It was seen in children who were initially passive became active in following teacher's instruction even when they did fantasy gymnastic without the help from teachers, children were actively doing movements with their imagination based on the motion and song from VCD that they listened to.

V. CONCLUSION

Fantasy gymnastic is an alternative for children to develop their sensory, motoric, cognitive, affective, and psychomotor abilities. Realizing many benefits of gymnastic learning to optimize children's gross motor skills, the fantasy gymnastic need to be made more interesting to enable transferring the gross motor materials on children in a fun way, therefore teachers should choose the form of motions and songs that are interesting so as to improve children's gross motor skills. The movements are based on indicators and standards of achievement level of child development (STPPA) to fit the needs and development of children. The researcher hopes that fantasy gymnastic can be used as an alternative learning for teachers to improve all aspects of development, especially the gross motor aspect on children, so that the main goal in learning is achieved, and able to train the teachers to be more creative in modifying learning especially in gross motor. It is expected that further research can see the

effect of fantasy gymnastic on other aspects of children's development.

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