

Development of Competency Based on Outdoor Education Model for Elementary School Students in Samarinda

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Abstract—This research aimed to develop a competency-based outdoor education model for elementary school level as an alternative to effective physical education learning. The research approach used is research and Development. The data Collection techniques used in this study were observations, interviews, documents and questionnaires. Observations are conducted at every stage of the study, ranging from pre-survey stage, development stage to wider trial stage. The results show that model learning outdoor education for elementary school children is rated good and effective that can improve cognitive aspects of 94.19%, psychomotor aspects of 91.86% and aspects Affective 84.88%. The student's attraction response to the outdoor education model of 89.1% with excellent results, while the teacher's response was against Learning Model Outdoor Education provides a percentage of 100%with excellent criteria.

Keywords: *Learning Model, Outdoor Education, competency based, saving learning results*

I. INTRODUCTION

Physical education is an educational tool that is capable of shaping the whole person, in the context of the development of cognitive, affective, psychomotor and social abilities in a balanced motion. The effort to develop the potential skills and motor development of elementary school children thoroughly require training services or in the form of a game approach to improve the rough motor with handling appropriate characteristics and abilities Elementary school children.

The learning Model is a way or strategy that a teacher has to do the learning process in the students to achieve a systematically designed goal. The learning model is any effort made intentionally by educators who can cause learners to engage in learning activities [3].

The determination of the learning model to be used in learning activities should consider: (1) The objectives to be achieved, (2) learning materials or materials, (3) students, and (4) Other non-technical considerations [2].

The Physical education learning model to be developed in this study is a competency based outdoor learning model that requires efficient mobility skills. Therefore, starting to plan, implement and evaluate the learning of physical education should be initiated from the basic motion to advanced learning. Outdoor education that is systematic,

repeated and more and more days to increase quantity and quality, then the opportunity to reach the learning objectives of the Physical education are increasingly wide-open.

The outdoor education Model developed basically in line with the principles of developmentally appropriate Practice focused on individual learning [1]. This Model is designed to help students develop themselves and their environment and their relationship with the community around the school. The outdoor Education Learning Model emphasizes a joyful learning experience and recognizes the familiar environment with the characteristics of the students who love to play.

The child's favorite levels of his favorite game show that the children prefer an electronic-based game over an outdoor game that requires more energy. This is evidenced by the observation of the students at Public Elementary School 016 Samarinda opposite and Public Elementary School 003 Samarinda Seberang. The results of the children's favorite percentage of their daily activities, and the results of observations that have been done are shown in table 1.

The above Data is that the child is always identical to play. There are only 7.9% of children who don't really like playing. Furthermore, the favorite data about electronic based games is also very popular children up to 61.9% of children and playing with friends reaches 79.4%. Both activities are asked separately and have the result of such a percentage, but when given the choice about activity that they prefer 47.6% of children prefer playing activities Electronics based games to fill their free time, such as playing gadgets in the school.

TABLE I. PERCENTAGE OF CHILDREN'S PLAY ACTIVITIES

No	Play Activities	Percentages (%)		
		Like	Not too	Dislike
1	Love to play	92.1	7.9	0.0
2	Love to play games based electronic	61.9	28.6	9.5
3	Play with friends	79.4	19.0	1.6
4	Play activities during leisure time	Love to play games based electronic	Play with friends	Other activities
		47.6	28.6	23.8

Learning model based on outdoor education	Output	Cognitive
		Affective
Program content		Psychomotor
		Physical activity
		Rhythmic activity
		Games
		Health activity

This is the basis of researchers to develop a model of outdoor education that is competency packed with various motor learning activities i.e. rhythmic activity, physical activity, game activity, and health activities in one learning activity. The process of learning through physical activity is designed to improve physical fitness, develop motor skills, knowledge and behavior of healthy and active life, sportsmanship, and emotional intelligence. Conceptually, the learning model of outdoor education that will be developed in this study is as follow.

In accordance with the characteristics of the model, design planning of outdoor education model formulated in this component has several objectives: first related to the process of learning physical education conducted by students include the activities of apportion, exploration, discussion and explanations, application development and conclusions. The criteria that can be used for the assessment of the learning process is a series of activities that contain various games containing locomotors motion aspects, non-locomotors motion and manipulative motion consisting of activity rhythmic, physical activity, game activities, and health activities in one learning activity. Secondly, ability to construct new knowledge is a goal related to learning outcomes. This goal aims at effort that students master learning materials according to prevailing curriculum.

Singer states that experience and intensive practice in a wide range of motor skills will result in ease in mastery of skills [5]. Therefore, in childhood the child has a variety of basic motion patterns experience and various activities; it will be easier to do various motor skills. Thus, basic motion skills (coarse and fine motor) in the form of locomotors, non-locomotors and manipulative given in the elementary school children will be the basis in the new motor learning or towards the quality physical skills at a later level.

Based on preliminary observations of of teachers and students activities in physical education and health lessons in Public Elementary School 003 Samarinda Seberang, the problems faced by both teachers and students is motor learning. The problem faced by physical education SD teachers in the implementation of physical education is the lack of understanding and creativity of teachers in drafting a varied and interesting model of physical education so that students are not bored. The lack of understanding and creativity of physical education teachers effect the way teachers teach in the field that is still conventional and minimal renewal in learning. It is evident in the study of physical education in schools. In the study, teachers provide the same basic motion practice material every semester without the development of a variation of motion or modification so that it is monotonous.

This is the researcher's encouragement to develop a learning model of outdoor education that is competency packed with various motor learning activities i.e. rhythmic activity, physical activity, game activity, and health activity in a series of activities learns. The learning process through physical activity is designed to improve physical fitness, develop motor skills, knowledge and behavior of healthy and active life, sportsmanship, and emotional intelligence.

One of the significant efforts to fix the physical education learning model in this period is conventional to be interesting learning is through an outdoor education model based on competence designed and dimming able to improve the ability of motion by utilizing the school environment as a learning resource. Related to the issue, researchers designed a study titled "Development of the competency based outdoor learning model for elementary school students in Samarinda".

II. METHOD

This research is research and development, a process or step-by-step to develop a new product or to improve existing, accountable products [6]. The steps are adapted into (7) The draft of development research procedures i.e. (1) The development of information in the field, (2) Information analysis, (3) developing the original product (draft model), (4) Expert validation and revision, (5) Small-scale field trials and revisions, (6) Large-scale field trials and revisions and (7) final product manufacture.

The test product/draft model is done 2 times, namely small-scale trials and large scale trials. Small-scale product trials are carried out towards students of V Public Elementary School 003 Samarinda Seberang with a total of 23 students, while large-scale trials are conducted on students of V-class in three schools, Public Elementary School 003 Samarinda Seberang, Public Elementary School 007 Samarinda opposite and Public Elementary School 016 Samarinda Seberang which amounted to 86 students. The types of data obtained in this research and development are qualitative and quantitative data. Qualitative data derived from (a) interviews with physical education teachers of the primary school, (b) data on the lack of outdoor education learning models from material experts and teachers who conducted an outdoor education Learning Trial, and (c) The material expert input data and the test perpetrator's teacher on the learning model outdoor education. Quantitative data is derived from (the expert assessment of the game), (d) material expert assessment of the test-perpetrator teacher.

The data collection techniques used in this study was observations, interviews, documents and questionnaires. Observations were carried out at every stage of the study, ranging from Pre-survey stage to the development phase to a wider trial stage. Interviews and questionnaires were used at pre-survey stages, model development stages and trial stages. Document analysis is used to collect data especially in preliminary study that is to answer research question related to the planning and implementation of physical education study that used to be Physical teacher Education.

TABLE II. CRITERION FOR DETERMINING THE PERCENTAGE

Value	Valuation Scale	Qualifications	Description
A	80 - 100 %	Excellent	Used
B	66 - 79 %	Good	Used
C	56 - 65 %	Enough	Repair
D	40,1 - 55 %	Less	Repair
E	0 - 40 %	Less than once	Repair

TABLE III. INITIAL PRODUCT DRAFT OF OUTDOOR EDUCATION LEARNING MODEL

Activities	Learn 1	Learn 2	Learn 3	Learn 4
Rhythmist's activity	Mission Box	Penguin Gymnastics	Hula-hoop	Hazardous seats
Physical Activity	Athletic Kids	Jump Frog	Rocket throwing	Sack Racing
		Jump Goal	Jumping rope	Chicken feet
		Rock Run	Sling	-
Games	Mini Soccer	Mini Volleyball	Basket	Handball
Health	Garbage picking	Garbage picking	Garbage picking	Garbage picking
	Self-hygiene	Self-hygiene	Self-hygiene	Self-hygiene

Quantitative data to calculate the quantity of data with analysis, first determine the percentage of the observation result with the formula [4]. The decision uses the criteria in table 2.

$$P = (f/n) \times 100\% \quad (1)$$

III. RESULTS AND DISCUSSION

The development process of outdoor education learning models includes; designing the beginning of outdoor learning planning education, the initial design of the implementation of outdoor education learning model and initial design of outdoor education learning model evaluation.

The initial design of the planning of outdoor education models was summarized in 4 key activities of 1) rhythmic activity, 2) physical activity, 3) games and 4) health activities. These four activities are given for one meeting. The initial design was subsequently analyzed and consulted with experts to be validated.

The initial product design that has been further validated by experts in accordance with their field prior to the test in the form of small scale to find out the shortcomings that exist in the model of outdoor learning education as input in Product perfection. The validation of experts in this development research involves 2 (two) experts in the field of outdoor education, namely M. Saidin S. Pd (the director of Amsi BA'DU outbound Quality Improvement Institute) and the mother of Dester B (recreational sports, traditional and Special service), and 1 (one) special game expert of elementary school namely Ramadhani.

The validation is done by providing the initial product draft of outdoor education model with evaluation sheet for experts. Evaluation sheet in the form of questionnaire that contains aspects of quality learning model outdoor

Education Physical education advice as well as commentary on the program made.

After validation, the product is repaired according to existing advice and deficiencies, following result of product results after revision.

Stretching

Stretching is aimed at the fun games to be able to increase the spirit of students are:

1. Gummy Bear Dance

Gummy Bear Dance is a rhythmic fun activity where done with the rhythm and beats that are the basis of rhythmic activities, not just doing Dance activities but Gummy Bear Dance is also a cheerful dance and Can awaken the spirit of the students.

2. Crown circumference

How to do:

- Participants form a circle, then in the middle is marked with a circle with a diameter of 1.5 meters.
- Technically, the participants lined up formed a large circle, then while walking and singing Ria. If there is a cue, then the participant has to run to the middle circle.
- Next count the participants who are in the circle. Then the one in the circle gets "crown". Students who are outside the circle will be sentenced. This activity is conducted up to 4-5 minutes/until the student has seen active.

Grouping

In the formation of groups can be done in a simple way of counting according to the number of groups desired then the students with the same number into a group.

Break

Break is done after grouping. In order for a group to be more compact then in a break each group is given a task to make the name of the group match their imagination and to fit the name of their group as creatively as possible.

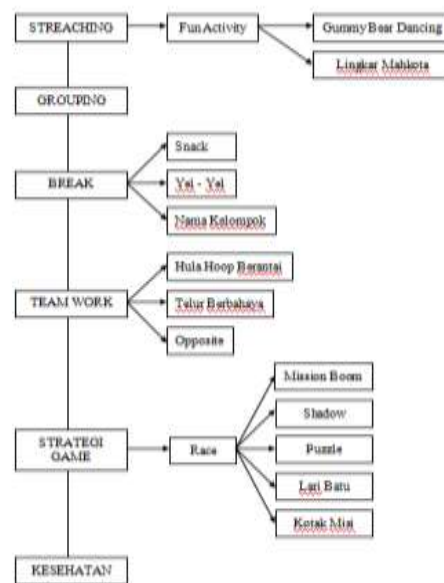


Fig. 1. Draft of outdoor education models after revised

Before entering the activity of team work, to be more interesting every group forward one to introduce their group complete with the groups they have made. It also can be a spirit plant before entering the activity of team work.

Team Work

To encourage members to always be excited and work together then the activities undertaken in the work team:

1. Hula-hoop

Tools and Materials: the second-bound Raffia strap (replacement for the Hula-hoop). How to Play:

- a. Each group lined up
- b. Hula-hoop was first cast to the end
- c. The first to complete the operand is the winner

2. Dangerous eggs

Tools and materials: Ping pong balls, bowl-shaped paper, and raffia straps. How to Play:

- a. Each participant wears a bowl-shaped hat over his/her head
- b. The group lined up
- c. First group members pass the ping pong ball inside the bowl-shaped hat towards the first group member without touching it
- d. When the ping pong Falls, the first member of the group is repeated

3. Opposite

- a. Each group marched backwards while holding the shoulder of a friend in front of him. The front participants themselves lifted both hands like a vampire.
- b. When there is an instruction "forward/backward/right/left" then every line must follow the command is skip fore/back/right/left.
- c. If the trainer adds the suffix "coy" then the participant must move to follow the opponent he said. For example, "Rewind Coy" then the participant must go forward, or "left coy" then the participant must jump to the right.
- d. If the trainer adds the suffix "cing" then the participant must be silent/stationary. For example, "Advanced cing" then the participant still does not move anywhere.

Strategy games

Game strategy activities are performed to support each other's friends. In game strategy activities are organized by means of race that contains:

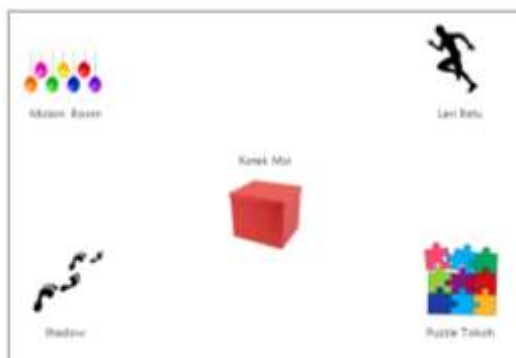


Fig. 2. Strategy games

Each group regulates the strategy to make this race and establishes who the representative in each game is and the race is done by relay from Mission Boom → Shadow → Puzzle characters → running stone → mission box.

1. Mission Boom

Mission Boom is the first post in this race; each group puts one person here. The balloon is hung and the participant who has been given a hat bowl will be tasked to jump until the balloon breaks and pass the stick to the second post.

2. Shadow

The second post in this race is the *Shadow game*. *Shadow Game* is a game designed to allow the body of trained students to be flexible. There are two students on this post, the first student in this *shadow game* should follow the footstep pattern and the hand step that has been provided after the second student performs the Hula-hoop by 5 rounds, when the Hula-hoop falls off then Players have to start from scratch following the shadow. After successful, the run passes the stick to the third post.

3. Character Puzzle

Puzzle This character is placed 2 players who help each other in completing the puzzle, after the puzzle is finished, the players must guess who is the character in the puzzle is stuck.

4. Rock Run

After receiving the stick from the third post then the four participants are placed in this post must finish the Rock run game. Any player who is running in turn takes and returns the rock after the last runner has to pass the stick to the fifth post.

5. Mission Box

In this fifth post there are 1 players, in this post players have to randomly choose the paper that is in the mission box and then answer the question. The questions in this mission box are varied but still sports themed.

Health

In this segment, students who have been tired of doing activities will be rested while receiving material about personal health about proper hand washing. In this segment is also given rewards to each team.

Data obtained from the recharging of the questionnaire by experts is a guideline for stating whether this outdoor education model can be used for both small-scale and large-scale test, the following is the result of filling from experts as shown in Fig. 4.

Based on an expert/expert assessment on the initial draft of the outdoor education model, the member 1 gave a rating of 3.62 or 90.38% with excellent criteria, and expert 2 gave a 3.31 or 82.69% rating with the criteria Excellent, while the expert 3 gives a rating of 3.69 or 92.31% with excellent criteria. Seeing from each of the assessments given by experts is averaged to 3.54 or 88.46% with excellent criteria. It can therefore be concluded that an outdoor education Learning Model can be used for small-scale product trials.

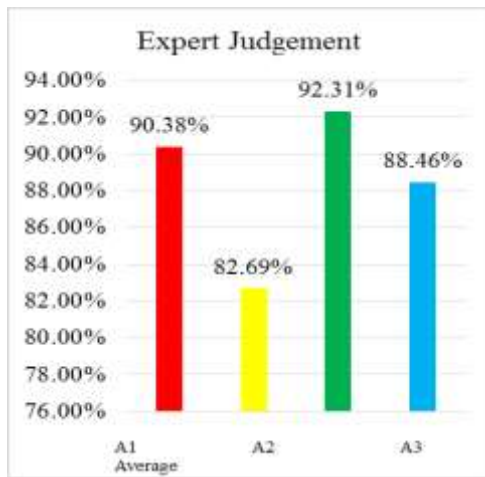


Fig. 3. Graph percentage of expert validation values

TABLE IV. PERCENTAGE DATA OF COGNITIVE, PSYCHOMOTOR, AND SMALL-SCALE TEST

Aspects of the Realm	Percentage criteria	Category	Frequency	
			Number of students	Percentage
Cognitive	80 - 100 %	Excellent	21	91.30%
	66 - 79 %	Good	2	8,70%
	56 - 65 %	Enough	0	0%
	40.1 - 55 %	Less	0	0%
	0 - 40 %	Less than once	0	0%
Amount			23	100%
Psychomotor	80 - 100 %	Excellent	20	86.96%
	66 - 79 %	Good	3	13.04%
	56 - 65 %	Enough	0	0%
	40.1 - 55 %	Less	0	0%
	0 - 40 %	Less than once	0	0%
Amount			23	100%
Affective	80 - 100 %	Excellent	19	82.61%
	66 - 79 %	Good	4	17.39%
	56 - 65 %	Enough	0	0%
	40.1 - 55 %	Less	0	0%
	0 - 40 %	Less than once	0	0%
Amount			23	100%

TABLE V. QUESTIONNAIRE DATA ON STUDENTS' INTEREST AND INTEREST IN THE OUTDOOR EDUCATION LEARNING MODEL IN SMALL SCALE TESTS

Number of students	Average Score Answer	Maximum answer Score every child	Presented
23	35.17	40	87.9%

Results of small-scale product trials conducted at Public Elementary School003 Samarinda opposite class V with a total of 23 students. In the first round the learning process is still influenced by conventional models that have been used daily. In the second round of learning planning is expected, the learning process can evolve towards the demands of outdoor education model and student engagement in the problem solving already seen. However, the limited trials are improved and improved.

Although the model already meets the observation items, there are some inputs/suggestions from the material experts: (1) in the preliminary stages, there is no static movement in the stretching movement and in *Gummy Gymnastics dynamic movements Bear* replaced with more passionate and friendly *chicken Dance* students, (2) at the exploration stage, the design of the game should have rules and drawings to make students easier to understand each movement, on Strategic games, every post should be made more challenging game and solved by group not race. (3) At the concept stage, teachers do not facilitate students to discuss with peers to be able to find and show which parts should be corrected on the basis of the demonstration shown. (4) At the application stage, the teacher does not give students the opportunity to repeat about the motion they have just learned.

Analytical data on cognitive, psychomotor, and affective aspects as well as students' interest/interest in small-scale trials are calculated using percentages with the following in table 4. From the results in table 4, the average of 84.96% for the 3 aspects is affective, psychomotor, and cognitive and the category is very good. Next, U To know how big students' interest in learning model outdoor education students are given a questionnaire about the interest/interest of students in the program. The result is as follows table 5.

Analysis of student questionnaire data showed that the results of questionnaire data for students demonstrated that the response of learners who were sampled at small-scale trials, generally gave a positive response to the learning model outdoor education, 87.9%, There are only 12.1% that say fatigue in following learning, this is because the students' fitness level conditions are not the same as the characteristics of elementary school students still are at the age of growing. After the students have finished testing small-scale products in the field and the teacher Physical education was given a questionnaire of 34 questions about his response to the product.

Table 7 above shows that the physical education teacher providing excellent criteria for the outdoor education learning model, because it can conclude that the learning model of outdoor education in elementary school students is acceptable. At try large scale by involving 3 elementary schools namely public elementary School 003 Samarinda Seberang, Public elementary School 007 Samarinda Seberang and Public elementary school 016 Samarinda Seberang with Sample count consists of 86 students in grade V.

TABLE VI. ANALYSIS RESULTS OF THE PRESENTATION OF PHYSICAL EDUCATION TEACHER QUESTIONNAIRE ON A SMALL-SCALE TEST

No	Teacher's name	Total Score	Presented
1	Satriya Hermawan, S.Pd.	34	100%
	Amount	34	

TABLE VII. PERCENTAGE OF COGNITIVE, PSYCHOMOTOR, AND AFFECTIVE ASPECTS OF A LARGE-SCALE TEST

Aspects of the Realm	Percentage criteria	Category	Frequency	
			Number of students	Percentage
Cognitive	80-100%	Excellent	81	94.19%
	66 - 79 %	Good	4	4.65%
	56 - 65 %	Enough	1	1.16%
	40.1 - 55 %	Less	0	0.00%
	0 - 40 %	Less than once	0	100.00%
Amount			86	100%
Psychomotor	80 - 100 %	Excellent	73	91.86%
	66 - 79 %	Good	13	8.14%
	56 - 65 %	Enough	0	0.00%
	40.1 - 55 %	Less	0	0.00%
	0 - 40 %	Less than once	73	100.00%
Amount			86	100%
Affective	80 - 100 %	Excellent	79	84.88%
	66 - 79 %	Good	7	15.12%
	56 - 65 %	Enough	0	0.00%
	40.1 - 55 %	Less	0	0.00%
	0 - 40 %	Less than once	79	100.00%
Amount			86	100%

TABLE VIII. DATA QUESTIONNAIRE FOR STUDENTS' INTEREST AND INTEREST IN OUTDOOR EDUCATION LEARNING MODEL AT LARGE SCALE TEST

Number of students	Average score Answer	Maximum answer score per child	Percentage
86	35,64	40	89,1 %

TABLE IX ANALYSIS RESULTS OF THE PRESENTATION OF PHYSICAL EDUCATION TEACHER QUESTIONNAIRE ON LARGE-SCALE TESTS

No	Name of Teachers	Total Score	Percentage
1	Adi Satriya Hermawan, S.Pd	34	100%
2	M. Abidin Noor, S.Pd	34	100%
3	Selamat Salfiansyah, S.Pd	34	100%
	Amount	102	

The results of large-scale trials are the process of developing a model conducted by Physical education teachers with the involvement of larger research subjects, the result of improvement of limited trial results. The results of the trial at the high-school may well begin the first round until the second round shows a significant influence on student learning outcomes. This is evidenced by the field data that students in the mastery of the subject matter have demonstrated an increase compared to the beginning of learning. The results of a trial in a category school from the first round to the second round showed an increase in the student's process and learning outcomes. Similarly, the results of trials in good category schools and less categories indicate the improvement and improvement of both the process and the student learning outcomes. However, in the group of schools, the category is not the same as the category of good and moderate school groups.

Analysis of large-scale test data shows that from expert assessment of the material there is an observation instrument at large scale trials, the material experts agree that the learning model of outdoor education consists of 4 kinds of Activities, namely: (a) rhythmic activity, (b) Physical activity, (c) games and (d) health activities in one learning cycle developed have successfully improved the learning ability of both knowledge, action, appearance, habit and behavior.

After conducting large scale trials, the field was then given a questionnaire that included cognitive, psychomotor, and affective aspects as well as a student's interest in the product. Here is the result of the percentage of large-scale product trials of cognitive, psychomotor, and affective aspects of students as shown in table 8.

Furthermore, to know how many students' interest in the outdoor education learning model on a large scale is done filling questionnaire interest by students. The data in table 9 shows students' interest/interest percentage towards outdoor education learning model of 89.1% with excellent results.

Table 10 shows that of the 3 respondents of Physical education Teachers, all of which provide a percentage of 100% with criteria "very of the outdoor education model of Elementary school students are acceptable. Based on the observation results of the material experts on the large-scale trials of outdoor education models have been good and can positively influence the improvement and improvement of basic skills Students, so no more input or unnecessary revisions.

IV. CONCLUSION

The conclusion to this research is (1) Model of outdoor education learning for elementary school children assessed well and effectively, can increase the cognitive aspect of 94.19%, psychomotor aspect of 91.86% and the affective aspect of 84.88% (2) Response students' interest in learning model outdoor education of 89.1% with excellent results, (3) Response Teacher Physical education against learning model outdoor education provides a percentage of 100% with excellent criteria. (4) therefore, it can be

concluded that the learning model of outdoor education can be assessed to develop and improve basic skills for elementary school children.

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