

Athletic Learning Support Games for Junior High School Students

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ABSTRACT

Taking into account a play pedagogical approach as a way to optimize the student's learning outcomes in physical education lesson, this research primarily aims to develop a game based activities roommates secondary school assists students in learning with the topic of educational athletics running events. in developing the selected game-based activities, it is important to concern on student's growth and development. The final products of the research were in the form of game-based activities supporting secondary students in learning the athletics, specifically the running events. besides the assessment analysis by material experts and physical education teachers, the students' questionnaires Also revealed positive results. The game developed models were assumed as appropriate and effective to use. moreover, this study acquired positive feedbacks from the student's responses. for these reasons, the present study suggests that such game models are feasible to use.

Keywords: *Game Models, Educational Athletics, Running Events*

1. INTRODUCTION

Playing an activity that is very close to the world of children, with these activities children can socialize, to give pleasure and able to train the child's motor. Playing is an activity undertaken with or without the use of tools, which generate understanding and provide information, give pleasure, and develop a child's imagination [1], Children are born with an intrinsic drive and natural curiosity to explore the world around them. Just as young children are attracted to the natural world, they too are enticed by the physical challenges and risk- taking experiences that provide such environments[2], By doing play activities provide a context for children to practice newly acquired skills so as to enable developing capacity in new social roles, business or challenging tasks, and resolve complex problems that they may not be able to do. Playing is an activity unique and very different to other activities such as study and work is always done in order to achieve a final result.

With the expected play activities for children can improve motor skills, creativity and cooperation, which means play can be used as a medium of learning. Play is intrinsically motivated. it is an end in it self, done only for the satisfaction of doing it. A related characteristic of the play is that it must be freely chosen by the of participants [3], Play can be used as a medium to improve their skills, develop competence in coping with his world and be able to develop creativity, with a

children's playground will have the ability to understand scientific concepts without compulsion. Learning to apply the concept of playing can be done to deliver learning materials so as to make students become motivated, learning practices such as physical education (PE) can apply the concept of play in menyapaikan matter, a case study material does run using the concept of the game.

The material ran into in athletics, which is part of the Physical Pendidikan subjects that shall be given to the students ranging from elementary school to senior high school level upwards. Athletics is a physical activity that consists of dynamic motion and harmonious basis, ie road, run, jump, and throw[4], Athletics is one of the elements of physical education is a component - the whole educational component that promotes physical activity and healthy lifestyle coaching and development of physical, mental, social and emotional harmonious and balanced. Athletic ability is the basic motion of any sports activity in general is very important to master. The development of children's potential as a prospective athlete is a very valuable capital, because they are all born with the potential to be developed[5], Athletic term which comes from the Greek, namely "athlon" has an idea of a race or a game. The above terms have the meanings that athletics is a race and a game at the time of ancient Greece used as a selection and exercises that can be used for physical training troops in the days of ancient Greece[4], Nowadays athletics an important part of physical

education as a way of life for fitness training and physical condition. The physical development the resulting from sport is a great benefit. The coach should administer the program and communicate in a way that fosters a positive attitude toward a lifetime of fitness that will prevail once the athlete's formal training has ceased [6],

Unmistakable that athletics is the "mother" of all sports, because it contains elements of basic movements required by all branches of sports, such as the motion of running, jumping and throwing. Judging from the general motion taxonomy, the complete athletic motions represented by the foundation to build a complete motion patterns, ranging from motion locomotor, manipulative nonlokomotor well as motion. If athletics in terms of the type of skills can be put into discrete skills, serial, and continuous. As well as if the terms of the pattern of the environment in which athletics is done, then the athletic skills tend to get in on the classification closed. From the structure of the locomotor movement patterns, athletics can improve aspects of strength, speed, endurance, explosive power, flexibility and other aspects. Linked with motion patterns nonlokomotor, athletics able to develop aspects of flexibility and balance. Of manipulative motion patterns, children can be taught activities such as: throwing, jumping, passing obstacles, climb and aspects of motor coordination, including kinetic sense [6],

Learning athletics in schools remain guided by the curriculum of physical education, sports and health set by the government. But that does not mean that all the athletic numbers listed in the curriculum can be implemented. It is closely related to the facilities and infrastructure owned by the school. The concept of play is very suitable to be applied in learning atletik so that the existing limitations can be eliminated. Makeplay activities in learning is important for children as a medium for learning. For children play is a learning process. In this case, the child learns to play and play to learn. Playing not only limited as rekrasi with these activities can make to be healthy child development, the game is described as a foundation for learning and maintaining health [7],

2. METHOD

A. Design

This study uses the Research and Development. In this case the development was implemented to get the model activity athletic game learning support material run numbers, In doing development, at this stage of the selection of the activities developed also look at the stages of development and the characteristics of the child, the resulting model is expected suitable

for children and corresponding stages of its development. Anchoring on the R & D's previous research proposed by Borg and Gall roomates Consist of 10 major steps, this study adapted and applied 6 cycles as the method such as 1) preliminary study by collecting and analyzing the selected Data 2) developing initial products 3) experts' validation and revision 4) small scale field testing and product revision 5) large scale trials and product revision 6) final products.

B. Samples

Trials conducted in small scale SMP Negeri 4 Sungai Raya, West Kalimantan with a total of 25 Students. Further trials with large scale conducted at two schools, namely SMP 8 and SMP Negeri 12 Pontianak Pontianak, West Kalimantan with the number 57 Learners.

C. Data Analysis Techniques

Data analysis techniques used in this research is descriptive data analysis. There are two kinds of data analysis techniques that is quantitatively and qualitatively, the first is the analysis of quantitative data, this analysis was performed to analyze data on the observations of experts and physical education teachers on the quality of the draft model prior to implementation of field trials. The second data analysis is qualitative data analysis, the analysis is conducted on the results of observations of experts and physical education teachers in giving advices and suggestions as well as revisions to the model drawn up mainly being tested in the field either on a small scale or large scale. For data on the observation of the subject matter experts on the model of the game, the effectiveness of the model of the game, and the perpetrators teacher trials there are two types of values. The results of observation "yes" gets the value of one (1) and the observation of "no" gets the value zero (0). The results of an assessment of the observation items are summed, and the total value converted to determine the category. Conversion is done by following the value of the standard Reference Rate Benchmark.

3. RESULT AND DISCUSSION

A. Draft Assessment Learning Games by Expert Physical Education

Material experts assess the initial draft model of the game by using a Likert scale instruments 1-4 as an assessment of the feasibility draft of games prior to field trials. There are 10 aspects of assessment by learning experts and 11 physical education aspect of the assessment is passed by junior penjasorkes teacher.

TABLE I. EXPERT ASSESSMENT OF LEARNING
PHYSICAL EDUCATION AGAINST DRAFT
GAME

Game Code	Code Expert	Number of Questions										Σ	Information
		1	2	3	4	5	6	7	8	9	10		
		Assessment of Scale Value											
P1	A1	4	3	3	3	4	4	4	3	4	4	36	High
	A2	4	4	4	4	4	4	4	4	4	4	40	High
P2	A1	4	4	4	3	3	3	4	4	4	4	37	High
	A2	4	4	4	4	4	4	4	4	4	4	40	High
P3	A1	4	3	4	3	3	3	4	4	4	4	36	High
	A2	4	4	3	4	4	4	4	4	4	4	39	High
P4	A1	4	4	4	3	4	4	4	4	4	4	39	High
	A2	4	4	4	4	4	4	4	4	4	4	40	High
P5	A1	4	4	3	4	3	4	4	4	4	4	38	High
	A2	4	4	4	4	4	4	4	4	4	4	40	High
P6	A1	3	4	4	4	4	3	4	4	4	4	38	High
	A2	3	4	4	4	4	4	4	4	4	4	39	High
P7	A1	4	4	4	3	4	4	4	4	4	4	39	High
	A2	4	3	3	4	4	4	4	4	4	4	38	High

TABLE II. RATE TESTING SMALL SCALE BY
MASTER PHYSICAL EDUCATION AGAINST
DRAFT GAME
SUPPORTING LEARNING JUNIOR HIGH SCHOOL
ATHLETICS.

Game Code	Number of Questions											Σ	Information
	1	2	3	4	5	6	7	8	9	10	11		
	Assessment of Scale Value												
P1	4	3	4	4	4	4	4	3	4	4	4	42	High
P2	3	4	4	4	4	4	3	3	4	4	4	41	High
P3	4	4	4	4	3	4	4	4	4	4	4	43	High

SUPPORTING LEARNING JUNIOR HIGH
SCHOOL ATHLETICS.

P8	A1	4	4	4	3	4	4	4	4	4	4	39	High
	A2	4	4	4	4	4	4	4	4	4	4	40	High
P9	A1	4	4	4	4	4	4	4	4	4	4	40	High
	A2	4	3	3	3	4	4	4	4	4	4	37	High
P10	A1	4	4	4	4	4	3	4	4	4	4	39	High
	A2	4	3	4	4	4	4	4	4	4	4	39	High
P11	A1	4	4	4	3	4	4	4	4	4	4	39	High
	A2	4	4	4	4	4	4	4	4	4	4	40	High

Based on the data in the table I, the frequency distribution of matter expert assessment can be seen that the suitability of the learning games athletics draft material running numbers for secondary school children is 100% in accordance with the high category.

B. Small-Scale Trial Data

Small-scale trials conducted after obtaining validation of learning material physical education experts to draft the athletic learning game for secondary school children. Trials conducted in small scale SMP Negeri 4 Sungai Raya with the number of 25 Students. Implementation of small-scale trials with directly observed by observers from the teacher to the school penjasorkes. Data obtained in the form of: (1) The data of observation execution athletics games for learning run number, (2) questionnaires learners.

P4	4	4	3	4	4	3	4	4	4	2	4	40	High
P5	3	4	3	4	4	4	3	4	4	4	4	41	High
P6	4	4	4	4	4	4	4	4	4	4	4	44	High
P7	3	4	4	3	4	4	3	4	4	4	4	41	High
P8	4	4	4	4	3	4	3	3	4	4	4	41	High
P9	4	4	3	4	4	4	4	4	4	3	4	42	High
P10	4	4	4	4	3	4	3	3	3	4	4	40	High
P11	4	4	3	4	4	4	4	4	3	4	4	42	High

Information:

Σ : Amount	P6 : Mencari
P1 : Bonbin Run	P7 :
Musang	
P2 : Hiu dan Ikan Kecil	P8 : Permainan
Kartu	
P3 : Kelompok Pemburu	P9 : Tangkap
Bendera	
P4 : Lawan Kata	P10 :
Teriakan TIM	
P5 : Mencari Mangsa	P11 :
Komunikata	

Based on the data in the table II, the valuation at the time of small-scale trials by teacher penjasorkes of the effectiveness of the learning games athletics run numbers for secondary school children is 100% in accordance with the high category.

TABLE III. DATA SUMMARY OF QUESTIONNAIRE ON LEARNERS TEST SMALL SCALE.

N o.	Question	Total Answers		Percentage	
		Yes	No	Yes	No
1	Are you able to do games that are taught?	25	0	100 %	0 %
2	Is the game that taught easy to do?	24	1	96 %	4 %
3	Do you understand the	21	4	84 %	16 %

TABLE IV. RATING SCALE TRIAL SIZE BY MASTER PHYSICAL EDUCATION AGAINST

Game Code	Code Expert	Number of Questions												Σ	Information
		1	2	3	4	5	6	7	8	9	10	11			
		Assessment of Scale Value													
P1	GR1	4	4	1	3	4	3	3	3	3	3	3	3	34	High
	GR2	2	4	4	4	4	4	4	3	4	4	4	4	41	High
P2	GR1	4	4	1	4	3	3	3	3	3	3	3	3	34	High
	GR2	3	4	4	4	4	4	3	3	4	3	4	4	40	High

	instructions / orders delivered within the game that taught?			%	%
4	Do you do the game seriously?	17	8	68 %	32 %
5	Do you feel happy with the game do?	25	0	100 %	0 %
6	Is the spirit of the game spur you to learn to run?	22	3	88 %	12 %
7	Is this game makes you glad to be moving or motivated to do?	21	4	84 %	16 %
8	Is the equipment used in games complicates you?	23	2	92 %	8 %
9	Do you see your friends happy when the game is done?	25	0	100 %	0 %
10	Do you want to play this game back another time?	19	6	76 %	24 %

Based on data from the questionnaire Table III percentage of learners towards the game that made a positive response of each item question.

C. Size Scale Trial Data

Wide-scale trials conducted to determine the effectiveness of the game that made the data were taken from the two schools, namely SMP 8 and SMP Negeri 12 Pontianak Pontianak. Data obtained in the form of: (1) The data of observation execution athletics games for learning run numbers, (2) questionnaires learners.

GAME DRAFT SUPPORTING LEARNING JUNIOR HIGH SCHOOL ATHLETICS

P3	GR1	3	4	1	4	4	3	3	3	3	3	3	3	34	High
	GR2	4	4	4	4	4	4	4	4	4	2	4	4	42	High
P4	GR1	4	4	3	4	4	3	3	3	3	3	3	3	37	High
	GR2	4	4	4	4	4	4	3	4	4	4	4	4	43	High
P5	GR1	4	4	3	4	4	3	3	3	3	3	3	3	37	High
	GR2	4	4	4	4	4	4	4	4	4	4	4	4	44	High
P6	GR	4	4	3	4	4	3	3	4	3	3	3	3	38	High

[illegible]

Information:

GR1 : Teacher PE SMP 12

GR2 : Teacher PE SMPN 8

 Σ : Amount

P6 : Mencari Permen

P1 : Bonbin Run

P7 : Musang

Based on data in Table IV, the valuation at the time of wide-scale testing by teachers penjasorkes of the effectiveness of the learning games athletics run numbers for secondary school children received high ratings in

TABLE V. SUMMARY OF QUESTIONNAIRE DATA ON LEARNERS TRIAL SIZE SCALE.

No.	Question	Total Answers		Percentage	
		Yes	No	Yes	No
1	Are you able to do games that are taught?	56	1	98 %	2 %
2	Is the game that taught easy to do?	57	0	100 %	0 %
3	Do you understand the instructions / orders delivered within the game that taught?	54	3	95 %	5 %

Based on data from Table V questionnaires percentage of learners towards the game that made a positive response of each item question.

	G R 2	4	4	4	4	4	4	4	4	4	4	4	4	4	Hig h
P 1 0	G R 1	4	4	3	3	3	3	3	3	3	3	3	3	3	Hig h
	G R 2	4	4	4	4	4	4	3	4	3	2	2	3	8	Hig h
P 1 1	G R 1	4	4	3	3	4	3	3	3	3	3	3	3	6	Hig h
	G R 2	3	4	4	4	4	4	4	4	3	4	4	4	2	Hig h

P2 : Hiu dan Ikan Kecil

P8 : Permainan Kartu

P3 : Kelompok Pemburu

P9 : Tangkap Bendera

P4 : Lawan Kata

P10 : Teriakan TIM

P5 : Mencari Mangsa

P11 : Komunikata

accordance with the category. of the 11 games were rated by two professors are 1 game is a card game being by the appraiser assessed by the teacher first, the rest of the game is considered to have a high suitability categories.

4	Do you do the game seriously?	49	8	86 %	14 %
5	Do you feel happy with the game do?	56	1	98 %	2 %
6	Is the spirit of the game spur you to learn to run?	50	7	88 %	12 %
7	Is this game makes you glad to be moving or motivated to do?	54	3	95 %	5 %
8	Is the equipment used in games complicates you?	6	51	11 %	89 %
9	Do you see your friends happy when the game is done?	51	6	89 %	11 %
10	Do you want to play this game back another time?	50	7	88 %	12 %

Based on the assessment and feedback by experts subjects and physical education teacher to the draft penjasorkes game is created, which is then carried out revisions to the draft learning support athletic games, then eventually resulted game model learning support

junior high school athletics with 11 of the games. Namely: (1) Bonbin Run; (2) Hiu dan Ikan Kecil; (3) Kelompok Pemburu, (4) Lawan Kata, (5) Mencari Mangsa, (6) Mencari Permen, (7) Musang, (8) Permainan Kartu, (9) Tangkap Bendera, (10) Teriakan TIM, (11) Komunika. Of each form of the game got high ratings in accordance with the category, for the response postitif learners respond to games created. Play is very important for the development of healthy children. American Academy of Pediatrics (AAP) has argued that the benefits of the game includes at least three main areas: (1) Play allows children to use their creativity while developing their imagination, dexterity, and physical strength, cognitive, and emotional. Play is important to healthy brain development. (2) track the development of children critically mediated by the right and affective relationship with a loving nanny and consistent as they relate to children through games. (3) Playing an integral part of the academic environment. A teacher can provide a game in the Learning process, according to the characteristics of junior high school students. Games can provide students to develop physical growth and potential in terms of cognitive, affective and psychomotor and achieving educational goals[8]. This ensures that the school setting to attend social and emotional development of children and their cognitive development[9]. Through games made activities are also expected for learners to master 21st century skills that have been submitted by the government to apply the concept of High Order Thinking Skills (HOTS). The competence that is critical thinking, creative and innovative, communication skills, collaboration and confidence[10]. Game learning approach athletics for the students of junior high school as the resulting product in development research is an alternative game that can be used by teachers penjasorkes to overcome limitations in doing the learning of athletic particular number to run, which is expected in the learning process fun, motivating and implement HOTS in study.

4. CONCLUSION

Based on the analysis of the assessment data and the input of experts and teachers penjasorkes, as well as questionnaires learners to shape the game for teaching athletics numbers run that was developed can be concluded that: (1) game model to study athletic numbers run learners secondary school rated appropriate and effective , (2) the response of students sampled in this study, which was happy to models developed game, so in general the students respond positif to play athletics developed learning support. Therefore, it can be concluded that the model developed game that deserves to be used. The products of this research is a model of

learning support athletic games run numbers for secondary school learners consisted of 11 games, namely: (1) Bonbin Run; (2) Hiu dan Ikan Kecil; (3) Kelompok Pemburu, (4) Lawan Kata, (5) Mencari Mangsa, (6) Mencari Permen, (7) Musang, (8) Permainan Kartu, (9) Tangkap Bendera, (10) Teriakan TIM, (11) Komunika, which are arranged in the form of video lessons and learning guide books.

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