International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 05, 2020
ISSN: 1475-7192

Development of "Kids Athletics" Model on Children's Gross Motor Skills and Self-Concept in Physical Education

Bafirman Hb*, Syamsuar Abas and Rifki Nanda Putra

Abstracts--- *The "Kids' Athletics" learning model is a multilateral physical activity. Students do a variety of physical activities such as running, throwing, jumping, and rolling which are adjusted to the characteristics of the age level. Through training and events, the "Kids Athletics" model movements excite children so that they are involved in sport activities physically and psychologically. This study aims to examine how the "Kids Athletics" learning model influences children's gross motor skills and self-concept. This Research and Development (R&D) design uses Analysis, Design, Development or Production, Implementation or Delivery, and Evaluation (ADDIE) models. The validation design of this model was validated by motor experts, counselor, and language experts. The practicality of the model was validated by Physical Education teachers. The data were collected through the validity test, practicality test, and effectiveness test. The data were analyzed by using qualitative and quantitative descriptive percentage techniques. The results of the validity test obtained a mean of 80.8% (valid). The results of the practicality test obtained the mean of 93.6%. (practical). The results of effectiveness test showed that the "Kids' Athletics" learning model effectively improved: (1) children's gross motor skills with Zobserved > Ztable (-4.790 >-0.00003) with significance (ς) of 0.000<0.05; (2) children's self-concept with Zobserved > Ztable (-3.736 > -0.0001) with significance (ς) of 0.000 < 0.05. It can be interpreted that there is an increase in gross motor skill and self-concept between before and after the Kids' Athletics" learning model carried out.*

Keywords--- *Kids Athletics, Gross Motor Skill, Self-Concept.*

I. BACKGROUND OF STUDY

Physical Education, Sport, and Health (PESH) course is an integral part of overall education, developing individuals organically, neuromuscularly, intellectually, socially, emotionally and spiritually through physical activity. PESH has an important role in intensifying the administration of education as a process of human development that lasts a lifetime, to produce holistic changes in individual quality, provide opportunities for students to be directly involved in a variety of learning experiences through physical activities, play, and exercise carried out systematically, directed and planned. The debriefing of the learning experience is directed at fostering, as well as forming a healthy and active lifestyle for life [1].

One of the sports that is always taught and developed in schools in PESH learning is athletics because the element of movements in athletic are applied in various other sports, including; walking, running, throwing and jumping. According to [2], the Kid's Athletics is an athletic coaching program for athletes of elementary school-

Bafirman Hb, Senior Lecturer, Department of Health and Recreation, Faculty of Sport Science, Universitas Negeri Padang, Indonesia. E-mail: bafirman@gmail.com*
Syamsuar Abas, Senior Lecturer, Department of Physical Education, Faculty of Sport Science, Universitas Negeri Padang, Indonesia.
Rifki Nanda Putra, Senior Lecturer, Department of Physical Education, Faculty of Sport Science, Universitas Negeri Padang, Indonesia.

DOI: 10.37200/IJPR/V24I5/PR201728
Received: 08 Feb 2020 | Revised: 03 Mar 2020 | Accepted: 18 Mar 2020

aged students in accordance with IAAF policy. The Kids' Athletics coaching starts from the age of 8-year-old to 13-year-old, aiming for: (1) physical activity, (2) health promotion/improvement, (3) social interactions, and (4) adventure traits.

Also in [2], the Kid's Athletics is a special athletic for children that is carried out individually or in groups in the form of a race so that it trains children to compete in fun games. Students develop their potential, especially in running, jumping, and throwing. Elementary school students need to learn the Kids 'Athletics because in addition to the elements of movements that improve motor skills, also the Kids' Athletics began to be widely contested. The Kids' Athletics method analyzes and develops subject matter in the form of potential learning activities that can facilitate students' learning [3]. The Kids' Athletics learning refers to a race or using a fundamental approach of achievement-oriented sport in athletic [4]. Some PESH teachers still use running distance, throwing and pushing equipment, like in the competitions during learning activities.

Based on preliminary studies, recently, there are still many weaknesses of teachers in implementing PESH learning process, so that athletic material is less desirable, children are easily bored and inactive to move. PESH teachers in elementary schools must be able to apply appropriate learning models that are appropriate to the level of growth and development of children. This article aims to examine the effect of the implementation of the Kids Athletics learning development model on gross motor skills and self-concept of students, as the Kids' Athletics learning model is a multilateral physical activity, in which children are physically and psychologically involved in various physical activities.

II. RESEARCH OBJECTIVES

The purposes of this study are; (1) producing a game-based model of Kid's Athletics for gross motor skills and students' self-concepts that is practical and effective, (2) determining how the effect of the implementation of Kids Athletics learning models on gross motor skills and student self-concept.

III. METHODOLOGY

This was a Research and Development research design. The procedure to carry out this study was based on Borg and Gall. Which were adopted the ADDIE model (Analysis, Design, Development, Implementation, Evaluations), for the development of Kids' Athletics in PESH learning through a game approach to fourth-grade students in elementary schools. The participation of the subjects in this study has been agreed by parents or guardians of students by signing a letter of agreement. Parents or guardians of students already understand all the effects and are willing to accept what might happen to the subject. The stages are described as following: (1) Conducting analysis; (2) Developing the Kids' Athletics design; (3) Realizing design to become a reality; (4) Evaluation of the initial product by field trials; (5) Revising.

Instruments were developed to collect data, to evaluate the quality of product results in terms of validity, practicality, and effectiveness. The product validity criteria were seen based on the results of the content validity and construct validity. The types of instruments used including: (1) Validity sheets, (2) Observation sheets, (3) For effectiveness: (a) scoot motor abilities test, and (b) self-concept questionnaires. Data were analyzed using the

DOI: 10.37200/IJPR/V24I5/PR201728
Received: 08 Feb 2020 | Revised: 03 Mar 2020 | Accepted: 18 Mar 2020

quantitative technique, the qualitative technique in the form of descriptive analysis of percentages, and tests of Wilcoxon using SPSS 23.

IV. FINDINGS

First, validation of the development of the Kids' Athletics learning model design from three validators is as follows:

Table 1: The Validation Results of Kids Athletics Learning Model for Class IV Elementary School Students

No	Part	Indicators	No Items	Sum	Percentage	Categories
1	Material	Suitability with the Elements in the learning model	1	8	80%	Valid
			2	9	90%	Valid
		Compliance with the curriculum	3	8	80%	Valid
			4	8	80%	Valid
		Suitability with the characteristics of students	5	9	90%	Valid
			6	9	90%	Valid
			7	9	90%	Valid
		Suitability with learning objectives	8	7	70%	Valid enough
			9	8	80%	Valid
			10	9	90%	Valid
		Learning model procedures	11	9	90%	Valid
			12	8	80%	Valid
			13	8	80%	Valid
2	Implementation	Suitability with the principles in the implementation of learning	14	8	80%	Valid
			15	7	70%	Valid enough
			16	8	80%	Valid
			17	8	80%	Valid
			18	8	80%	Valid
		Compliance with the characteristics of children's play	19	8	80%	Valid
		Setting children's learning and playing environment	20	8	80%	Valid
			21	9	90%	Valid
			22	9	90%	Valid
3	Language	Explanation of Draft	23	7	70%	Valid enough
4	Formatting	presentation of appearance/draft	24	8	80%	Valid
			25	7	70%	Valid enough
	Total number			202	2020	Valid
	Average			80,8	80,8	

Based on the table above, it shows that the results of expert assessment related to validation of the development of the Kids' Athletics learning model are obtained a mean of 80.8% (valid).

Second, after the Kids' Athletics learning model was declared valid, the next step was to test its practicality and effectiveness.

DOI: 10.37200/IJPR/V24I5/PR201728
Received: 08 Feb 2020 | Revised: 03 Mar 2020 | Accepted: 18 Mar 2020

Table 2: Practicality Test Results for Kids' Athletics Learning Model

No	Indicator	Sub-Indicator	Observer				Category
			Result		%		
			I	II	I	II	
1	Opening	Apperception and motivation,	19	20	95	100	Valid
		Delivering of competencies, activity plans, and assessments	13	14	86,6	93,3	
2	Core	Mastery of material	14	14	93,3	93,3	
		Implementation of the strategy	43	44	95,5	97,7	
		Scientific application	22	22	92	92	
		Use of media/learning resources	23	24	92	96	
		Implementation of learning assessment	12	12	80	80	
		Learning assessment	18	19	90	95	
		Use of language	10	10	100	100	
3	Closing	Reflexion	10	10	100	100	
		Evaluation	14	14	93,3	93,3	
		Appreciation	10	10	100	100	
			208	213	92,5	94,7	
			421		**93,6 %**		**Very Good**

From the practicality test of each observation sheet indicator, the implementation of the Kids' Athletics learning model for Grade IV Elementary School students has been very well implemented.

Third, the results of the effectiveness test of the Kids' Athletics learning model on gross motor skills and self-concept are as follows.

1. Test results for the effectiveness of the Kids' Athletics model on gross motor skills, seen in the following table.

Table 3: The Effectiveness Test Results of Kids Athletics Model on Motor Ability

No	Subject	T-Score	Category	T-Score	Category
		Pre-test		***Post-test***	
1	Basketball throwing	1057	Fair	954	Fair
2	4-second running	1579	Fair	1662	Good
3	Ball passing	1663	Fair	2185	Good
4	Long jump without running	1549	Fair	1655	Good

Furthermore, to interpret the increase in gross motor scores of students between before and after the treatment of the Kids Athletics model, data were analyzed using Wilcoxon using SPSS 23.

Table 4: Rank and Statistic Test of Wilcoxon

Ranks					**Test Statistics[a]**	
		N	***Mean Rank***	***Sum of Ranks***		*Post - Pree*
Post Test - Pree Test	*Negative Ranks*	0[a]	0.00	0.00	*Z*	**-4.790[b]**
	Positive Ranks	20[b]	10.50	210.00	*Asymp. Sig 2-tailed)*	.000
	Ties	0[c]				
	Total	20				

Based on table 4, it can be interpreted that there is an increase in the score of the level of gross motor skills of students between before and after being given a treatment of Kid's Athletics learning model.

2. The results of the effectiveness test of the Kids Athletics model to improve students' self-concepts shown in the following table.

DOI: 10.37200/IJPR/V24I5/PR201728
Received: 08 Feb 2020 | Revised: 03 Mar 2020 | Accepted: 18 Mar 2020

Table 5: The Effectiveness Test Results of the Kids' Athletics Model

No	Subject	*Pre-test*	Category	*Post-test*	Category
1	Body image	88	Good	96	Very good
2	Pride	75	Fair	96	Very good
3	Character	83	Good	100	Very good

Then, to interpret the increase in the score of students' self-concept level between before and after the treatment of the Kids Athletics model, Wilcoxon using SPSS 23 was used.

Table 6: Rank Dan Statistic Test of Wilcoxon

Ranks					**Test Statistics**	
		N	***Mean Rank***	***Sum of Ranks***		*Post test - Pree test*
Post test - Pree test	*Negative Ranks*	0^a	0.00	0.00	Z	-3.736^b
	Positive Ranks	18^b	9.50	171.00	*Asymp. Sig. (2-tailed)*	.000
	Ties	2^c				
	Total	20				

Based on table 6, The Wilcoxon test results show that the $Z_{observed}$ value is -3.736, while the Z_{table} value is obtained from the Z_{table} with an alpha of 5% the value is -0,000. Whereas the Asymp value. Sig (2-tailed) obtained 0,000. Thus, it can be interpreted that there is an increase in the level of students' self-concept scores between before and after the treatment is given in the form of a Kids Athletics model.

V. DISCUSSION

Based on the findings of the validity, practicality, and effectiveness of the Kids' Athletics model for PESH learning for Grade IV Elementary School students, it is stated that it is valid, practical and effective.

First: Based on the analysis of validation assessment data from the validator, the validity of the game-based Kids Athletics learning model developed is classified as valid. If the model that has been developed (Production model) is a valid construction, it is feasible to be implemented [5]. Validity is needed to test a research "valid" that often interpreted correctly, true, valid so that the word validity can be interpreted with accuracy, truth, validity [6]. Research products are said to be valid if they meet certain criteria. According to [7], characteristics of the product that are said to be valid if it reflects the state of the art knowledge. This is what it is said with content validation. Furthermore, the components of these products must be consistent with each other (construct validity).

Second: The results of observing the implementation of learning that the implementation of the motion learning model of Kids Athletics based games to improve gross motor skills and self-concept of students in grade IV elementary school students is in a very practical category that are equal to 93.6%. Based on the results of the average implementation of the model, in general, it has been implemented very well.

Third: The effectiveness of the development of the Kids' Athletics learning model on gross motor skills, based on the Wilcoxon test shows that there is an increase before and after. It can be represented that there is an increase in the results of gross motor skills between before and after doing the kids athletics learning model. The effectiveness of the learning program is characterized by the following characteristics: (a) successfully leads students to achieve instructional goals that have been set, (b) provides an attractive learning experience, actively involves students so as

DOI: 10.37200/IJPR/V24I5/PR201728
Received: 08 Feb 2020 | Revised: 03 Mar 2020 | Accepted: 18 Mar 2020

to support the achievement of instructional goals, (c)has the means tools that support the learning process. The effectiveness aspect can be done if the product is valid and practical [8].

The Kids' Athletics learning model develops basic athletic movement skills making forms of game development created by physical education experts to stimulate and motivate children to move to resemble true athletic learning [9]. The basic skills development program has a significant effect on gross motor skills in students [10]. Modifications made are more widely used for learning in athletics by utilizing simple materials. The use of modified tools was effective in overcoming the limitations of the learning infrastructure, and the narrow sports field [11]

Fourth: The effectiveness of the development of the Kids' Athletics learning model on self-concept, based on the Wilcoxon test shows there is an increase in self-concept before and after treatment. Self-concept influences learning outcomes, because self-concept is used to help students understand and recognize their potential [12]. Students will look more optimistic, full of confidence and always be positive about everything, including the failures they experience. Children who practice organized sports have greater physical and emotional self-concepts [13]. Students with positive self-concepts will be able to appreciate themselves and see positive things, done for success in the future [14] . If the environment provides a good and positive attitude, then the child will feel himself valuable enough so that the growth of positive self-concept, self-concept affects the ability of students to think creatively [15]. Steps that need to be taken to have a positive self-concept are as follow: 1). Be objective in recognizing yourself. 2). Appreciate yourself. 3). Do not antagonize yourself. 4). Think positive and rational [14]. Negative self-concept will tend to be pessimistic about life and the opportunities it faces, seeing challenges as obstacles. Students with negative self-concepts, will easily give up before fighting and if it fails, there will be two parties to blame, whether it's self-blame (negatively) or blame others [16]. Students have the belief that if they work hard they will succeed, and believe that people who fail are due to lack of ability or motivation [17].

VI. CONCLUSION

Based on the development and testing of Kid's Athletics learning model, a conclusion was obtained. (1) The development of a valid and practical game-based Kids Athletics model in accordance with the curriculum can be used in PESH learning for Elementary School students, (2) The implementation of the Kids Athletics learning model is very effective in improving gross motor skills and students' self-concepts in Primary School students.

REFERENCES

[1] Depdiknas, Tingkat Kesegaran Jasmani Indonesia. *Jakarta: Pusat Pengembangan Kualitas Jasmani*, 2003.
[2] Suyono, *IAAF Kid's Athletics*. Jakarta: Staff Set-IAAF RDC Jakarta, 2002.
[3] Adang Suherman, Dasar-Dasar Penjaskes. *Jakarta: Depdikbud*, 2000.
[4] APPSO, *Kid's Athletics*. Jakarta: PB. PASI, 2011.
[5] W.Fadly, Wirawan, Validitas Model "Produksi" Sebagai Alternatif Model Pembelajaran Untuk Mendukung Kurikulum 2013. Journal of Natural Science and Integration Vol 1, No 2, JNSI *Publisher:* UIN Sultan Syarif Kasim Riau, 2018.
[6] Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif*, dan R&D. Bandung : Alfabeta, CV, 2017.
[7] Tj. Plomp, J. V. D. Wolde, The General Model for Systematical Problem Solving. From Tjeerd Plomp (Eds.). *Design of Educational and Training* (in Dutch). Utrecht (the Netherlands): Lemma. Netherland. Faculty of Educational Science and Technology, University of Twente. Enschede the Netherlands, 1992.
[8] H. Firman, *Kefektifan Program Pembelajaran*. Jakarta: Gramedia, 1987.

DOI: 10.37200/IJPR/V24I5/PR201728
Received: 08 Feb 2020 | Revised: 03 Mar 2020 | Accepted: 18 Mar 2020

[9] Alcala David Hortigüela, dkk. Teaching Games for Understanding: A Comprehensive Approach to Promote Student's Motivation in Physical Education. *Journal of Human Kinetics* Vol. 59, 17-2, 2017.

[10] Sultoni, Kuston, Suherman, Adang, Wibowo, Ricky, Increasing Gross Motor Skill Through Fundamental Skill Development Program. *ACTIVE: Journal of Physical Education, Sport, Health and Recreation* Vol. 7, No 1, February 2018.

[11] Andre Tri Pratomo, Endang Sri Hanani, Heny Setyawati. Survei Sarana Dan Prasarana Pembelajaran Pendidikan Jasmani Olahraga Dan Kesehatan Pada Sekolah Menengah Pertama Negeri Se-Kota Purbalingga Tahun 2012. *Journal of Physical Education, Sport, Health and Recreation,* Vol. 2, No. 6, 2013.

[12] J. Adriana, Pengaruh Konsep Diri dan Kemandirian terhadap Prestasi Belajar Histologi Mahasiswa Fakultas Kedokteran UKI Jakarta. Tesis. *Surakarta : Universitas Sebelas Maret*, 2008.

[13] Santiago Mendo-Lázaro, at all. Self-Concept in Childhood: The Role of Body Image and Sport Practice.Front. Psychol., 24 May 2017 https://doi.org/10.3389/ fpsyg .2017 .00853

[14] J. F. Rini, Konsep Diri . http://www.e-psikologi.com/, 2002.

[15] Rahman, Risqy. Hubungan Antara Self-Concept Terhadap Matematika Dengan Kemampuan Berpikir Kreatif Matematik Siswa. *Infinity Journal* Vol. 1, No. 1, Volume 1 Number 1, Infinity. *Publisher :* STKIP Siliwangi Bandung, 2012.

[16] Kristiani Pardede, Yudit Oktaria. Self-Concept On Teenage Street Children. *Jurnal Ilmiah Psikologi* Vol. 12, No. 2, Publisher *:* Universitas Gunadarma, 2007.

[17] L. Kaluge, Possible Major Influences of Children Learning Social Studies on Academic Self Concept and Achievement. *Jurnal Ilmu Pendidikan* Vol. 13, No. 1, Publisher *:* Universitas Negeri Malang, 2006.

DOI: 10.37200/IJPR/V24I5/PR201728
Received: 08 Feb 2020 | Revised: 03 Mar 2020 | Accepted: 18 Mar 2020