



Proceeding

Unternational Scientific Seminar on

SPORT AND SPORTSCIENCES

"The Role And Contribution Of Sport
And Sportsciences In Enhancing
A Better Quality Of Life"

Kerjasama antara Universitas Negeri Padang dan Universiti Kebangsaan Malaysia

> Pangeran Beach Hotel Padang, 12 – 13 September 2013

PROCEEDING

INTERNATIONAL SCIENTIFIC SEMINAR ON SPORT AND SPORTSCIENCES

The Role and Contribution of Sport and Sportscience in Enchancing A Better Quality of Life

Dr. Norlena Salamuddin Dr. Mohd Taib Harun Prof. Dr. Sayuti Syahara, MS, AIFO Dr. Syahrial B, M.Pd Drs. Arsil, M.Pd Drs. Syafrizar, M.Pd

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KATA PENGANTAR

Puji syukur kehadirat Allah SWT karena atas perkenan-Nya telah dapat menyusun Prosiding Seminar Internasional dengan tema "The Role and Contribution of Sport and Sportscience in Enchancing a Better Quality of Life".

Seminar Internasional ini merupakan bagian dari kontribusi Fakultas Ilmu Keolahragaan Universitas Negeri Padang yang bekerjasama dengan Universiti Kebangsaan Malaysia untuk melakukan diseminasi dan mengkomunikasikan serta bertukar fikiran mengenai topiktopik terbaru dari olahraga dan ilmu keolahragaan dan untuk selanjutnya mencari jalan keluar terbaik dari masalah-masalah yang aktual melalui pendekatan inter-disipliener.

Untuk itu, kami menghaturkan terima kasih kepada Universiti Kebangsaan Malaysia (UKM) yang sudah dapat melakukan kerjasama dengan Fakultas Ilmu Keolahragaan Universitas Negeri Padang (UNP), dalam hal ide pelaksanaan kegiatan seminar ini, pemerintah provinsi Sumatera Barat, pemerintah kabupaten/kota se-Sumatera Barat, DPRD provinsi Sumatera Barat, pimpinan Universitas Negeri Padang, pimpinan Universiti Kebangsaan Malaysia, pimpinan Fakultas Ilmu Keolahragaan UNP, Bank Nagari Cabang UNP, para penyaji makalah, dan peserta seminar. Semoga amal baik Bapak/Ibu memperoleh balasan baik yang berlipat ganda dari Allah SWT.

Padang, September 2013 Dekan FIK UNP,

Drs. Arsil,M.PdNIP. 19600317 198602 1 002

KATA SAMBUTAN KETUA PANITIA PELAKSANA

Walaupun bukan segala-galanya, kebermanfaatan olahraga tidak hanya dapat difahami dan dirasakan secara teoretik semata tetapi harus dapat diaplikasikan ke dalam kehidupan yang nyata. Bagaimanapun juga kajian-kajian secara teoretik masih diperlukan untuk hal-hal yang dapat diterima, secara rasional sehingga olahraga dapat diterima tidak saja secara empirik tetapi juga secara teoretik.

Perkembangan dunia yang begitu sangat pesat, memaksa kita mempersiapkan sumber daya yang memiliki daya saing yang tidak saja secara local tetapi juga harus bersifat universal. Era Globalisasi dan persaingan pasar bebas, telah menjadi ancaman dan sekaligus tantangan untuk bisa bersaing dengan bangsa-bangsa di belahan dunia lainnya. Seluruh aspek kehidupan akan terkena imbasnya tidak terkecuali dalam aspek pendidikan mulai dari tingkat pendidikan paling rendah sampai ke tingkat yang paling tinggi.

Seiring dengan perkembangan dunia saat ini, perkembangan olahraga sangatlah pesat. Perkembangan ini diiringi dengan bermunculan issue dan pengetahuan di bidang olahraga. Informasi-informasi yang aktual seputar olahraga bermunculan. Diharapkan forum seminar ini mampu memberikan wadah untuk dapat mengkomunikasikan serta bertukar fikiran mengenai topik-olahraga dan ilmu keolahragaan dan untuk selanjutnya mencari pemecahan masalah.

Perguruan Tinggi khususnya Fakultas Ilmu Keolahragaan Universitas Negeri Padang (FIK UNP), juga ikut bertanggungjawab dan terjun langsung dalam rangka mempersiapkan SDM di atas melalui penyiapan generasi menghadapi *issue-issue* yang muncul dalam dunia olahraga. Sehingga out come yang dihasilkan bisa disejajarkan dan memiliki daya saing yang handal dalam menjawab tantangan era globalisasi dan persaingan pasar bebas.

Untuk tujuan itulah, FIK UNP melakukan perintisan awal melalui kegiatan seminar internasional yang bertemakan "The Role and Contribution of Sport and Sportscience in Enchancing a Better Quality of Life". Tujuan Seminar adalah untuk mengkomunikasikan dan bertukar pengalaman topik-topik terbaru dari olahraga dan ilmu keolahragaan dan mencari jalan keluar terbaik untuk masalah-masalah yang aktual melalui pendekaan interdisipliner.

Seminar ini dilaksanakan pada tanggal 12 dan 13 September 2013. Seminar ini bertempat di Pangeran Beach Hotel Kota Padang Provinsi Sumatera Barat. Sebagai Ketua Pelaksana kegiatan ini, saya ingin menyampaikan penghargaan yang setinggi-tingginya kepada FIK UNP Padang, serta kepada Universiti Kebangsaan Malaysia dan semua anggota panitia yang telah berupaya sekuat tenaga, menyisihkan waktu dan tenaganya dalam rangka mensukseskan acara ini. Terima kasih atas kerjasama dan komitmennya.

Terakhir saya menyampaikan rasa terima kasih yang paling dalam khususnya kepada para pembicara kunci yaitu Dr. Ir. Roy Suryo, Menteri Pemuda dan Olahraga, Prof. Dr. Phil Yanuar Kiram Rektor UNP Padang, Prof. Dr. Hemut Digel Universitas Tubingen, Prof. Dr. Jackueline D. Goodway, OHIO State University USA, Dr. Mohd. Taib Harun, Universiti Kebangsaan Malaysia, Dr. Michael Koh, Republic Polytechnic Singapore, Dr. Norlena Salamuddin, Universiti Kebangsaan Malaysia, Prof. Dr. Joko Pekik Irianto, Deputi Peningkatan Olahraga Prestasi Kemenpora, Dr. lan Harris Sujae, Republic Polytechnic Singapore, Robert Jhon Ballard Australian Strength and Conditioning Assosiation dan khususnya kepada para pembicara kunci yang datang dari luar negeri, saya berharap semoga selama keberadaan di kota Padang, memperoleh pengalaman yang baik dan menyenangkan dan diiringi doa semoga selamat kembali pulang menuju rumah dan keluarga masing-masing Semoga hasil seminar ini akan membawa pencerahan bagi kita semua, bagaimana upaya yang harus dilakukan oleh Perguruan Tinggi khususnya FIK UNP Padang dalam membentuk manusia Indonesia yang berdaya saing tidak saja secara local tetapi juga internasional.

Semoga amal baik Bapak/Ibu memperoleh balasan baik yang berlipat ganda dari Allah SWT.

Ketua Pelaksana,

Prof. Dr. Sayuti Syahara, M.S., AIFO

KATA PENGANTAR EDITOR

Pertama dan yang paling utama, kami panjatkan puji syukur kehadirat Allah SWT, atas petunjuk dan karunia-Nya, sehingga Prosiding Seminar Internasional Olahraga dan Ilmu Keolahragaan dengan tema "The Role and Contribution of Sport and Sport Science in Enchancing a Better Quality of Life" yang akan dilaksanakan pada tanggal 12 s/d 13 September 2013 dapat diselesaikan dan diterbitkan.

Seminar tersebut terselenggara berkat kerjasama antara Universitas Negeri Padang dengan Universiti Kebangsaan Malaysia yang mengundang keynote speaker sebanyak 8 (delapan) orang yang berasal dari Jerman, Amerika, Australia, Malaysia, Singapura dan Indonesia serta didukung oleh 62 makalah teknis yang disampaikan dalam sidang paralel. Di dalam prosiding ini berisi 4 makalah keynote speaker dan hasil karya tulis ilmiah lainnya yang berasal dari berbagai institusi yaitu; 1) University of Tübingen, 2) The Ohio State University, 3) Universiti Kebangsaan Malaysia, 4) Universitas Padjadjaran, 5) Universitas Negeri Medan, 6) Universitas Negeri Jakarta, 7) Universitas Negeri Padang, 8) Universitas Negeri Manado, 9) Universitas Pendidikan Indonesia, 10) Universitas Negeri Yogyakarta, 11) Universitas Negeri Semarang, 12) Universitas Cendrawasih, 13) Universitas Pendidikan Ganesha Singaraja, Universitas Bina Darma Palembang, 15) KONI Provinsi Sumatera Barat, 16) KONI DKI, 17) Sekolah Dasar Negeri 7 Keliat Ogan Ilir Palembang.

Prosiding ini telah melalui proses editing oleh dewan editor/penilai karya tulis ilmiah serta dilengkapi dengan diskusi dan tanya jawab pada saat seminar berlangsung. Semoga penerbitan prosiding ini dapat memberi manfaat dan dapat dijadikan acuan dalam pengembangan penelitian yang terkait dengan perkembangan dunia keolahragaan. Kami mengucapkan terima kasih yang sebesar-besarnya kepada semua pihak yang terlibat dalam penyelesaian penyusunan prosiding ini dan mohon maaf atas ketidaksempurnaan dalam penerbitan prosiding ini.

Editor

- 1. Dr. Norlena Salamuddin
- 2. Dr. Mohd Taib Harun
- 3. Prof.Dr.Sayuti Syahara, MS, AIFO
- 4. Dr. Syahrial B, M.Pd
- 5. Drs. Arsil, M.Pd
- 6. Drs. Syafrizar, M.Pd

JADWAL KEGIATAN SEMINAR INTERNATIONAL PADANG, 12 - 13 SEPTEMBER 2013

HARI/ TANGGAL	WAKTU	KEGIATAN	KETERANGAN	PENANGGUNG JAWAB
HARI KE 1				
		PENDAFTARAN/REGISTRASI		Seksi Acara
		PEMBUKAAN/PERESMIAN		
	00.00.00.00	Laporan Ketua Panitia	Prof. Dr. Sayuti Syahara, MS.,AIFO	
	08.00 - 09.00	Sambutan	Prof. Dr. Phil. Yanuar Kiram (Rektor UNP)	Seksi Acara
		Sambutan	Prof. Dr. Irwan Prayitno, M,Sc (Gubernur Sumbar	
		Sambutan dan Pembukaan Seminar	Dr. Ir. Roy Suryo (Menpora)	
Kamis, 12 September	10.00 - 10.30	ISTIRAHAT/ TEA BREACK		
2013		PLENARI I/ PLENO I		
		1. Prof. Dr. Helmut Digel	Universitat Tubingan - Germany	
	10.30 - 12.30	2. Prof. Dr. Jackie Goodway	OHIO State University - USA	Ruri Famelia
	10.30 - 12.30	3. Prof. Dr. Joko Pekik Irianto, M.Kes.,AIFO	Deputi Peningkatan Olahraga Prestasi Kemenpora - INA	
		4. Dr. Michael Koh	Republic Polytecnic Singapore	
	12.30 - 14.00	ISTIRAHAT/ LUNCH BREAK		

		PARALLEL SESSION I :		
		RUANG 1.	Physical Education	Bafirman
	14.00 - 17.00	RUANG 2.	Physical Education	Khairuddin
		RUANG 3.	Psychologi	Wilda Welis
		RUANG 4.	Psychologi	Umar
	17.00 - Selesai	ISTIRAHAT/MINUM PETANG		
HARI KE 2				
	09.00 - 11.30	PARALLEL SESSION II :		
		RUANG 1.	Management	Bafirman
		RUANG 2.	Physical Education	Khairuddin
		RUANG 3.	Psychologi & Recreation Sport	Wilda Welis
Jum'at, 13		RUANG 4.	Training Theory	Umar
september	12.00 - 14.00	ISTIRAHAT / LUNCH BREAK		
2013		PLENARI II/ PELNO II		
		1. Dr. Taib Harun	Universitas Kebangsaan Malaysia	
	14.00 - 16.00	2. Mr. Robert John Ballard	Australian Strenght Conditioning Assoconiation	Rina Ambarwati
		3. Dr. Noerlena Salamuddin	Universitas Kebangsaan Malaysia	
		4. Prof. Dr. A. Purba, MS.,AIFO	Universitas Padjajaran	
	16.00 - Selesai	PENUTUPAN		

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COMPARISON OF GAME SERIES LEARNING STRATEGY WITH CONVENTIONAL LEARNING IN IMPROVING THE ABILITY OF FUNDAMENTAL MOTOR SKILL OF ELEMENTARY SCHOOL STUDENTS IN PADANG

Syahrial Bakhtiar Padang State University, Indonesia

This study aims to determine: (1) the influence of the learning strategy of game series in improving fundamental motor skills of primary school students, (2) the influence of conventional learning strategies in improving fundamental motor skills of primary school students, (3) The effect differences of game series learning strategy with conventional learning in improving fundamental motot skills of primary school students. This study uses two group postest pretest design by using subject students in Padang Elementary School on January to June 2010.

The study found: (1) There is a significant improvement in fundamental motor skills in the treated groups of students after game series learning strategy, (2) There is a significant increase in the fundamental motor skills of students in the group treated with conventional learning, (3) There is significant differences in fundamental motor skills between students who were given treatment game series learning strategy with the students who were subjected to conventional learning, where the fundamental motor skills of game series learning strategy students group is higher than students who received conventional learning.

It can be concluded that the game series learning strategy can be used as a solution for elementary school physical education teacher in the teaching of fundamental motor skills in students.

Introduction

The ministry of education has set the various fields of study that must be taught, as efforts to provide knowledge and skills and ensure a comprehensive development to elementary school students, one of these subjects are Physical Education. Providing knowledge and skills in teaching physical education in order to fulfill the task for the child's holistic development.

According to BNSP Depdiknas (2005) Learning Physical Education, Sports, and Health aims so that learners have some capability, including: improving the ability and fundamental motor skills. *fundamental skill* by Pangrazi (2004) is a skill that forms the basis of human movement. Ability of motion in the *fundamental motor skills* describe the degree of mastery of skills in using your fingers, eye-hand coordination and eye-foot,

tempo-balance, and visual perception. According to Goodway and Robinson (2006) the basic motor skills is *the ABC* of the motion.

Piaget (1952) in Ulrich (2000) was among the first to emphasize the importance of human movement in relation to the development of knowledge. Children should explore their environment if you want to develop their maximum cognitive ability. During the early years, children spend more time interacting with the environment through movement activities such as creeping, crawling, walking, jumping. This period is important to master the development of basic movement skills of children.

Clark (1994) look at the fundamental motor skills as "basic pattern of coordination that underlies later proficiency movement". According to Ulrich (2000) the work of Edelman (1987) showed that children learn how to coordinate and control their bodies by moving and using sensory feedback generated as a result of the action. Movement patterns are often repeated to produce strengthening neural pathways that support the movement pattern.

According to Gallahue & Ozmund (1998) During the early years of elementary school, a child's basic motor skills play an important role in influencing how your friends see it. A child who is less skilled than most of his colleagues will generally last selected to participate in group games during recess and after school activities. The consequences are constantly being chosen last or not elected at all sure have a negative impact on physical self-concept of children and motivation to become active.

According to Laban in Rahantoknam (1992), the basic motion can be classified into three categories: (1) locomotor activity, activity that causes the body to move from one place to another, such as: running, jumping, jumping, leaping, toed, galloping, sliding, skiping, rolling, and climbing, (2) non-locomotor activity, activities that move the limbs on its axis and the offender does not move, such as: avoidance, muscle flexing, twisting and spinning, swinging legs, dependent, pulling, and pushing, (3) Activities of manipulation, motor skills that involve the mastery of the object outside the body by the body or body parts which include: the object distance (throwing, kicking, hitting), adding to mastery (capture, collect, retrieve) and move together (carrying, dribbling).

According Pangrazi (2004) There are two categories of motion that build basic motor skills namely, (1) locomotor movement is the activity that causes the body to move from one place to another, (2) *Object* movement control, is a motion to send the object, the object control, and move with the object. While Haywood and Getchell (2009) motion base consists of: (1) Locomotion skills, (2) Balistic skills, and (3) manipulative skills.

Physical activity is an important aspect of human life. Physical education is also an integral part of the educational process as a whole. Interests and the status of physical education occupies an important position when associated with low levels of physical fitness of children and adolescents, the health conditions of children and adolescents who are less good, increasing obesity, less skilled children and youth in physical

activity. Learning in Eelemntary School Physical Education is very important role to promote the development of learning basic movement for all elementary school students.

According to Taba (1962), the preparation and planning of learning experiences in a systematic way can help the learning process. The steps that need to be done by teachers in designing learning experiences, namely: (1) Diagnosing student needs such as background, weakness or lack thereof, (2) Determine the objective to be achieved, (3) Selecting subject matter, subject matter or topic that will be sitentukan studied after objective structured. The subject matter must be in accordance with the objectives of the curriculum, (4) Prepare course materials, learning materials are arranged in hierarchies, composed of easy to difficult, depending on conditions and student interests, (5) Selecting a learning experience: learning to determine a strategy guided by the subject matter. The material is more easily understood and communicated as appropriate to the learning strategies used, (6) Develop learning activities, sequence or combination of activities, (7) Determine what is assessed and how to assess: the shape, assessment methods and techniques must be determined.

Accordingly, Tyler (1990) put forward five principles that can be used to select or design the learning experience: 1) Students were given the opportunity to perform the behavior stated in the objective, for example basic movement skills of locomotion, 2) The learning experience has the charm and proficiency level able to satisfy the student, 3) the learning experience is consistent with the level of student ability, 4) Various different types of experience are used to achieve some objective or objectives are the same.

Development of Basic motion by Ulrich (2000) Often overlooked by educators early childhood. During the years prior to entering school and elementary school period, the ability of motor (movement) of a child begins to emerge and evolve. Physical development and movement of the historical experience of a child plays an important role in influencing the acquisition of motion patterns. If the deficiencies in the development of basic motion is not recognized and repaired, the children may have persistent problems with movement skills in the future. In addition, the social consequences that might arise from the lack of skilled in basic move that could significantly change the child's self concept. Therefore, an important aspect of the program *in* early childhood is supposed *to* evaluate a development *gross motion*.

Evaluation of the basic motion is also very much needed by physical education teachers in preparing and planning the learning of physical education, where before learning design is planned, physical education teachers need to know about fundamental mototr skills of students, so teachers can make the appropriate and qualified design learning experiences, where success of the learning design in achieving their goals and objectives of the evaluation of learning can be tested after

the administration or execution of the learning design. To meet these needs it is important to make a good concept, and standardization of test development that includes fundamental motorr skills (movement motion) and the expertise to control the objects (object control). Test of Gross Motor Development Second Edition (TGMD-2) was developed to meet this need.

TGMD-2 was designed to assess the *movement of rough* function in children aged 3 to 10 years and has been determined based on the knowledge and experience of its validity and reliability. Tests that measure 12 *gross* motor *skills* are taught to children in kindergarten, early elementary, and special education classes. This test consists of two subtests that measure gross motor skills/*movement* that developed in the early *rough* life, namely (1) Locomotor subtest measures the gross motor skills that require coordination of movement of body fluids as the child moves in one direction, which consists of: run, gallops, hop, leap, horizontal jump, and slide, (2) Object Control subtest measures the gross motor skills which demonstrate that efficient throwing, assault and capture of movement which include:. Striking a Ball Stationary, Stationary Dribble, Catch, kick, overhand throw, and Underhand Roll.

The results Bakhtiar (1999) states the basic movement skills of elemantary school students of North Padang were lot of immature to appropriate level of growth and development. To run (52%) is still quite basic level, jump (59.46%) is still quite a beginner, the balance (60.36%) is still the primary level as well as throw ((51.66%) and catch (60.66%) still classified as a beginner. Thus it can be said of many students who have not been good in movement skill development.

The results indicate that physical education has not been able to develop fundamental motor skills of elementary school students effectively. Teaching physical education learning experiences are only able to give a specific sport skills in students without evaluating students' fundamental motor skills. It is characterized by most of elementary school students tent to play football, volleyball and other games directly than learning to follow the basic motion. This fact is caused by the experience of playing sports more appeal and be able to satisfy the hearts of students, while learning basic skills such as walking, running, jumping, kicking, catching and so felt boring for elementary school students.

However, this condition will cause bad effect to the fundamental motor skills and physical fitness to elementary school students for the rest of his life. For that, it is need to design an appropriate learning method to be given to elementary school students in the experience and knowledge of fundamental motor skills.

Through this research will be shown a series of learning strategy game that aims to improve students' fundamental movement skills. Learning strategy is a strategy game series that make the atmosphere of learning and play situations to foster a fun competition in a person who learns, so that they are motivated to learn and practice in learning

achievement. The series of games is also a means that leads participants to compete to achieve victory. Through a series of learning games is estimated in accordance with the characteristics of these children, more students are expected to study hard and practice and ultimately can enhance students' mastery of basic movement skills.

This study has five objectives, namely to determine: (1) the influence of the game series learning strategy in improving fundamental motor skills of elementary school students, (2) the influence of conventional learning strategies in improving fundamental motor skills of elementary school students, (3) The effect differences of game series learning strategies with the conventional learning in improving fundamental motor skills of elementary school students.

Method

This study uses two group postest pretest design by using subject students of Elementary School in Padang on January to June 2010.

Treatment research in this regard is the implementation of the experiment by using a game series learning strategy in one group and the conventional learning strategies in aother groupe for 6 months. The series of games based on the opinion given Grossing (1975) game series learning strategy is a series of sequenced lessons from the form of a game that is simple and easy to more difficult and complex systematically leads to the actual game, and learning from whole to part. Then Kiram (1995) suggested, to develop a form of game can be done by constructing and changing the rules of the game itself, in accordance with the objectives to be achieved

The study population was all elementary school students (SD) of Padang. Samples taken in a *multi-stage random sampling* of samples taken in stages. The first phase, conducted sampling area (school location) in *the cluster*. The second phase, carried out the determination of the number of respondents based on age and gender by *proportional random sampling*, the sample of respondents selected from each age and region based on the selection, so we get 360 the sample. The samples were then divided into two groups, namely group A gain in the conventional learning, and group B have a series of learning games.

To obtain research data used test basic motor skills TGMD-2 compiled by Ulrich. According to Goodway, Crowe, Ward (2003) *Test of Groos Motor Development-2* (TGMD-2) prepared by Ulrich (2000) has been selected to measure the ability of basic motor skills (fundamental motor skill performance) and the proven validity and reliability.

Mean-retes tests used to measure the reliability coefficient showed .96 to .97 for the skill *Locomotor* and *object control* skills. Content validity is obtained through the assessment of three experts, and *construct validity* is determined through factor analysis.

TGMD-2 evaluates appearance Locomotor skills, which consists of: 1) run; 2) gallops; 3) hops; 4) leap; 5) horizontal jump, and 6) slides, and

motion control object consists of: 1) striking; 2) stationary dribble, 3) catch; 4) kick; 5) overhand throw, and 6) underhand roll.

Before data were analyzed, testing requirements analysis performed on data obtained as a prerequisite for the use of statistical analysis techniques. Further testing of new hypotheses. Test requirements analysis is used to test Liliefors normality test and homogeneity of variance test with the Bartlett test. Testing the hypothesis of this study using a pretest analysis techniques postest with t test Confidence level used for the test was a = 0.05.

Results And Discussion

Testing requirements of data analysis showed that groups data in this study came from a normally distributed population and have a homogeneous variance. Thus, the normality and homogeneity requirements are met so that data can be used t-tests in the testing of research hypotheses.

From the data obtained, can be described as follows:

Fundamental motor skills of students who were given a series of games learning strategy

Based on the analysis of data on fundamental motor skills of students who obtained scores achieved in the group of students who were subjected to a game series of learning strategy, for the 180 students having empirical data description as follows:

Table 1. pretest data description and postest group of students who were given treatment game series.

Parameter	Pretest	Postest
Mean	70	79
The lowest value	25	33
The highest value	93	98
Variants	126.82	266.54
Standard deviation	16.33	11.26

From the table 1 shows that there was an increase in fundamental motor skills scores were subjected to the game series learning. Picture of the distribution of data can be viewed via the following diagram:

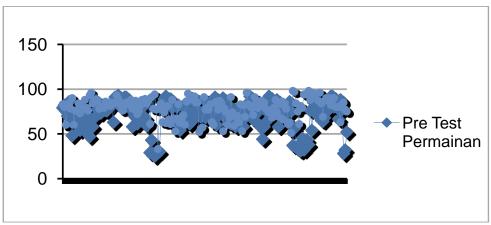


Figure 1: Graph scores of fundamental motor skills of series game learning strategy students.

Fundamental motor skills of students who were subjected to conventional learning

Based on the analysis of data on fundamental motor skills of students who obtained scores achieved in the group of students who were subjected to a series of learning games, for the 180 students having empirical data description as follows:

Table 2. pretest data description and postest group of students who were given conventional treatment of learning.

Parameter	Pretest	Postest
Mean	68	75
The lowest value	22	46
The highest value	92	96
Variants	116.89	253.84
Standard deviation	10.81	15.93

From the table 2 shows that there was an increase in students' fundamental motor skills scores after conventional learning treatment. Picture of the distribution of data can be viewed via the following diagram:

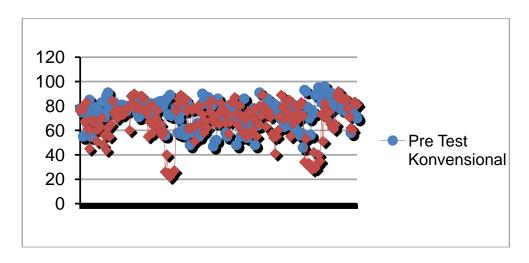


Figure 2: Graph Scores basic movement skills of students Learning Given the conventional treatment.

Testing the hypothesis

Hypothesis testing to compare the results of pretest and postest in each treatment group using paired test analysis of two samples for means as summarized in the following table:

Table 3. The results of hypothesis testing and pretest data postest learning the game and the conventional circuit

	Learning game series	Conventional learning
t stat	6.203	4.693
P (T ≤ t) one-tail	1.866 E-09	2.668 E-06
t Critical one-tail	1.653	1.653

From Table 3 shows that the method of game series learning strategy and the conventional learning, have the value of P (T \leq t) one-tail < t Critical one-tail. This indicated that there was a significant increase in the fundamental motor skills of students in both learning methods. Furthermore, to know what is more effective to increase fundamental motor skills, then the hypothesis test results performed between treatment groups postest of game series learning strategy and conventional learning by using a two sample assuming equal variances, as summarized in the following table:

Table 4. The results of the comparison group hypothesis testing learning and conventional game series.

	Learning the game with a conventional circuit	
t stat	1.281	
P (T <= t) one-tail	0.101	
t Critical one-tail	1.649	

Table 4 shows that the value of P (T \leq t) one-tail <t Critical one-tail. Which indicates that the game series learning strategy improved fundamental motor skills are significantly better than conventional learning.

In accordance with John Locke in Adisasmita (1989) advised to use a method of discovery and game to create a pleasant atmosphere learning, in addition to the general methods of praise and private criticism. Subsequently, the pragmatic ideology believe that the game should be held so that the desire of moral and ethical judgments can be developed. Great attention of students is important, students will learn about something interesting. Therefore, the energy and time should be given widely to motivate students. It is also argued that the ideology of humanitarian philosophy advocated the using of the situation as a motivational process.

Furthermore, Clark, in Ellington (1981) suggested that the game is a means that leads participants to compete, for example, to achieve victory, which the rules have been agreed before. Two things must be present in a game are the competitive nature and a set of game rules. Because of willing to be the winner, the students raced to master the skills to play well or displaying their ability in earnest. The students not only physically involved, but also cognitively, and encouraging classroom atmosphere, eventually students gain learning activities, and subsequently become a learning experience that is meaningful in learning movement skills.

Fundamental motor skills of students who were given treatment with game series learning strategy was higher than the group of students who were given conventional treatment of learning strategies, this is because the strategy game series of student learning more active practice and to achieve active time practicing motor skills is the main thing.

From this study illustrated that the use TGMD-2 test kit as a tool to evaluate the fundamental motor skills in children is very effectively used, which also can distinguish between the process of evaluating the fundamental motor skills of children with motor skills. Thus the expected physical education teachers can learn and master the test equipment TGMD-2 is to be applied in the learning process.

Conclusion

- 1. There is a significant increase in the fundamental motor skills of students in the group treated with game series learning strategy.
- 2. There is a significant increase in the fundamental motor skills of students in the group treated with conventional learning
- 3. There are significant differences improvement in fundamental motor skills between students who were given treatment with game series learning strategy comapre with the students who were subjected to conventional learning, where the fundamental motor skills that students of games series learning strategy was higher than students who received conventional learning.

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