#### Catatan:

- (1) Ada judul dan abstrak dalam Bahasa Indonesia (tolong ditambahkan).
- (2) Introduction: (a) harus dikemukakan tujuan pada alinea terakhir seperti yang ditunjukkan pada abstrak; itu merupakan solusi yang diusulkan terhadap ada masalah; (b) intro terlalu panjang, jadi tolong dipadatkan agar artikel menjadi proporsional (pendahuluan + judul dan abstrak: paling panjang 20% dari keseluruhan badan artikel); (c) alinea sebaiknya tidak terlalu panjang (kasihan yang membaca; sebagian sudah saya pecah).
- (3) Method: sebaiknya diperjelas (sehingga dapat direplikasi orang lain) dengan urutan: pendekatan, subjek penelitian (populasi & sampel: bagaimana teknik pengambilan sampel); instrumen penelitian (perlu informasi kualitas instrument: modifikasi yang sudah ada, siapa yang mengembangkan; atau mengembangkan sendiri dan bagaimana kualitasnya); prosedur penelitian (pengukuran; teknik pengumpulan dan analisis data). Tujuan tidak dikemukakan di metode, tetapi pada introduction.
- (4) (a) Subjudul: **RESULT AND DISCUSSION**. Subjudul: **Result** dan diikuti sub-subudul berikutnya sesuai dengan hasil yang dikemukakan. Sebelum tabel ada pengantar .... Table 1; pengantar .... Table 2; dan seterusnya. (b) Penjelasan data tabel mungkin diperlukan, tetapi sebaiknya tidak mengulang-ulang anka-angka pada narasi sebelum atau sesudahnya, kecuali misalnya sig.(.000; .05).
- (5) Discussion: heboh: hanya terdiri atas SATU alinea yang amat panjang (itu namanya memperkosa pembaca); tolong dipecah-pecah dan ditambah untuk memperluas pemaknaan. Discussion itu penjelasan dan pemaknaan data hasil penelitian, maka harus banyak merujuk dan membandingkannya dengan berbagai artikel hasil penelitian orang lain yang dipublikasikan di jurnal-jurnal bereputasi (scopus) mutakhir (3-5 tahun yang lalu; jangan terlalu banyak rujukan tahun lama).
- (6) Conclusion: belum mencerminkan temuan dan pemaknaan penelitian; jadi tolong ditambah dan diperjelas.
- (7). Daftar pustaka: (a) jumlah kurang banyak; jadi tolong ditambah sumber artikel dari berbagai jurnal bereputasi (sebaiknya bukan buku) yang mutakhir; harus juga merujuk artikel dari jurnal di FIK UNY dan JCP; (b) penulisannya harus sesuai dengan ketentuan penulisan di jurnal ini (JCP; baca dan ikuti panduan; bisa dibaca secara *online*); misal: rujukan artikel jurnal, selain ada volume, nomor, dan halaman, harus ada DOI/URL-nya.

Berdasarkan kondisi di atas, artikel ini masih memerlukan revisi yang lumayan banyak. Mangga Ibu, direvisi secepatnya. Tolong dipahami juga bahwa saran-saran di atas bersifat **mengikat**: artinya harus diikuti.

## EFFECT OF PHYSICAL CONDITIONING ON STUDENT BASIC SKILLS GYMNASTICS

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**Abstract:** Physical conditioning was considered as a strong foundation for developing techniques from different fields. The aims of this study was to determine the impact of physical conditioning in parenting students or athletes gymnastic basic skills. The study was asurveyed research. The study sampling was 82 students aged between 18-19 years from Sport sciences, exactly coaching sciences. Data collection methods used checks and measurements of bio motor and gymnastic fundamental skills. Data analysis using correlation and linear regression to predict the future competence. The results showed that: there was significant correlation between the physical conditioning items and gymnastics basics skills, but there is also strong significant linear regression (p: .032<.05) from physical conditioning with basic skill of Gymnastics. The Standing balance (r = .728) and broad jump (r = .751) were found more influenced for gymnastic basic skills. There was a great significant different between the pre-test and posttest gymnastic basic skills means with p value (p: .000). The high standard deviation between the items showed the different adaptation of the subjects according to the physical conditioning. In conclusion physical conditioning was found as parenting for developing the gymnastic basic skills.

Keywords: gymnastic, physical condition, basic skill

## EFFECT OF PHYSICAL CONDITIONING ON STUDENT BASIC SKILLS GYMNASTICS

INTRODUCTION

In reaching maximum motion abilities in a sport is influenced by means of numerous factors. These elements want to be recognised in order to maximize the fulfilment of the learning process. Gymnastics is one of the sports activities that is taught to sports students. Gymnastics is a game that consists of quite a few disciplines: creative gymnastics, rhythmic gymnastics, cardio gymnastics, acrobatic gymnastics and tramp lining. In addition to an extremely right vary of youthful gymnasts taking part in gymnastics; the variety of male athletes competing at the amusement and collegiate tiers is reportedly on the rise. Fitnesscomponents have been associated with gymnastics (Sleeper, Kenyon, Elliott, & Cheng, 2016). Gymnastics is an excellent mechanism for the educating basic motor abilities and advertising health-related fitness in youth of all a long time (Coelho, 2010; Donham-Foutch, 2007).

Commented [Editor1]: Judul dan abstrak dalam Bahasa Indonesia

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Many agree that involvement in gymnastic education can make a contribution considerably to the all-around development of a baby (Sloan, 2007), and that a physical education program along with gymnastics advantages youth in many areas (Werner, Williams, & Hall, 2012). Gymnastics is oftentimes protected in physical education programs throughout the world. It represents an exercise with many benefits, to the point that it has been described as an indispensable and necessary phase of the PE curriculum that have to be provided in preschool through college (DonhamFoutch, 2007). One such gain is that it promotes abilities related to health and health (Werner et al., 2012; Baumgartner & Pagnano-Richardson, 2010). There are a number of well-known, health-related fitness batteries to check health in all its dimensions in younger people. However, in accordance to Visscher, Louer, & Elferink-Gemser, (2012), it is not possible to decide which characteristics appear to be most vital or which characteristics are surely wanted to be correct in gymnastics.

Nevertheless, an accelerated ability to precisely measure strength, power, speed, balance, flexibility, and agility can additionally assist in figuring out and re mediating deficits in the bodily basic performance traits desired in gymnastics Some research consist on the development based on the fitness Sawczyn (1985). Underlined the significance of bodily health in gymnastics, showing systematically increasing variations over time between gymnasts and non-trained topics in flexibility, speed, strength, agility and endurance tests. Many authors have said that current artistic gymnastics requires greater strength and power due to the fact of the ever increasing technical difficulty required through revision of the Code of Points (Jemni, Sands, Friemel, Stone, & Cooke, 2006). Previous research has demonstrated the fantastic outcomes of a four-week after faculty programme addressing motor skills and fitness can have in young youth (Matvienko & Iradge, 2009).

Mechanism is strongly increased (Swanik et al., 2002). PT is associated with good result of stretch shortening cycle (SSC) strikes that include a strong antagonistic movementa good way after a rapid and high-quality concentric contraction (Malisoux, Francaux, Nielens & Theisen, 2006). SSC will make bigger the capability of the neural and muscle-tendon buildings to produce most stress in the shortest viable time, prompting the use of plyometric exercise routines as a bridge between strength and pace (Hortobagyi, Sio, Fodor, & Merkely, 1991). Neuromuscular function has been applied, a high result and energy in athletic things to do (Markovic, Jukic, Milanovic, & Metikos, 2007; Spurrs, Murphy, & Watsford, 2003). Itrequired for a gymnastic athlete to have electric muscle (Marina & Jemni, 2014). Explosive strength, floor response time, flexibility and anthropometric facets account for 41% of success in performing rhythmic gymnastics (Miletic, Katić, & Malès, 2004). PT for the

minimize limbs consists of quite a number kinds of body weight jumping-type exercises, such as drop jumps, countermovement jumps, alternate-leg bounding, hopping and other SSC leaping exercise routines (Fleck & Kraemer, 2004).

Women who take phase in a PT programme existing a giant reduction in the vary of severe knee accidents (Hewett et al., 1996) as a end result of neuromuscular diversifications which beautify dynamic knee balance and universal performance (Hewett, 2000). Other lookup has established that PT improves performance in vertical jumping, as suitable as stopping accidents in adolescent gymnasts (Zelisko, Noble & Porter, 1982). Physical capability is the capacity to function organs in bodily undertaking (Sugiyanto, 1993). Physical capacity is important to help psychomotor activity. Skillful moves can be carried out if the bodily competencies are adequate. Rhythmic gymnastics (RG), with its style of body control and its bodily demands, requires notable traits (Mirela, Raducu, Antoanela, Carmen & Laura, 2014). These gymnasts ought to have bodily strength, flexibility, agility, coordination, steadiness and grace, as accurate as most dependable functioning of the neuromuscular laptop (Gaiole & Patil, 2016).

From the early age gymnastic was accented, the performance needed enough time ever though athlete is still young (Maffuli, 1990). Task of gymnasticare basic of many games (Chimera, Swanik, Swanik & Straub, 2004). For girls who moved very well presented a low chance of knee injuries (Chimera et al., 2004; Wright & De Cree, 1998). Gymnastic strength training consisted on the type of training (Di Cagno et al., 2010). Regular coaching reduces the possibility of sport-related injuries, improves motor abilities and facilitates weight manipulate (Piazza et al., 2014). Gymnasts have increased movements, such as vertical jumps and time-honored adjustments of movement, body position. Many of these missions are done clearly by practicing routine, by plyometric training (PT) appears to facilitate gymnasts' prosperity in developing (Hewett, Stroupe, Nance, & Noyes, 1996).

There are many gymnastics components: (1) strength is an aspect of a person's bodily situation about the potential to use muscular tissues to take delivery of the burden of work (Sajoto, 1988). Strength is the capacity of a muscle or group of muscle mass to hold or be given a workload (Eri Pratiknyo Dwi Kusworo, 2000). Strength plays a vital role; due to the fact electricity is the riding force of each undertaking: (2) endurance the potential of a character to use his muscle mass to contract consistently in a tremendously long time with a sure burden. (Sajoto, 1988).

Endurance refers to the capability to do work whose depth is determined within a certain time, this is called stamina. An athlete can be stated to have a higher strength than if

he is now not effortlessly worn-out; (3) muscle strength: Muscle electricity is the capacity of an individual to use most strength that is performed in the shortest viable time (M. Sajoto, 1988); (4) speed is a person's capacity to work on non-stop moves in the shortest feasible time (Sajoto, 1988). Speed is the capacity that permits humans to trade course or raise out the identical or now not the identical movements as quickly as possible (Eri Pratiknyo Dwi Kusworo, 2000).

The velocity can be exceptional between the pace of motion and the speed of the explosit (5)flexibility is the effectiveness of a man or woman in adjusting to all activities with huge physique measurements. This will be very easily characterised with the aid of the degree of flexibility on the whole surface of the body (Sajoto, 1988). Flexibility is the most feasible motion that can be carried out by a joint (Eri Pratiknyo Dwi Kusworo, 2000). Poor flexural electricity also impacts speed and staying power because, muscle mass have to work challenging to overcome resistance to long strides, (6) agility is the ability of anybody to trade the position of a sure area, anybody who is in a position to trade a special function in excessive velocity with correct coordination, ability that the agility is quite appropriate (M. Sajoto, 1988). Agility is the capability to trade route quickly and correctly while transferring or jogging at nearly full speed (Eri Pratiknyo Dwi Kusworo, 2000).

The test used to measure the agility of any person who is very simple is suttle-run and dodging-run (7) balance is a person's capacity to manage the nerves of the muscular tissues (Sajoto, 1988). Balance is the ability to hold acceptable posture and right when doing a movement (Eri Pratiknyo Dwi Kusworo, 2000), (8) Coordination: Coordination is the capacity of a individual to combine a range of extraordinary actions into a single movement pattern effectively (M. Sajoto, 1988). Coordination is a harmonious relationship of a variety of elements that show up in a motion (Eri Pratiknyo Dwi Kusworo, 2000).

An athlete is said to have an accurate degree of coordination if he is in a position to do the competencies exact and quickly and can whole the undertaking of training. (9) accuracy is the potential of an individual to manipulate free moves towards a target; this intention can be a distance or perhaps a direct object that must be charged with one area of the body (Sajoto, 1988); (10) reaction: Reaction is the potential of a character to act without delay as quickly as viable in response to stimuli precipitated via the senses of nerves, or different emotions (M. Sajoto, 1988). Reactions can be divided into three sorts of reactions to away stimuli, reactions to hearing and reactions to taste. According to 18th century figures (in Imam Hidayat, 1996), there are three gymnastic criteria, namely: (1) exercise ought to be selected to have an impact on the body; (2) the movements need to be correct; (3) each dose

exercising ought to be in accordance with its purpose.

Gymnastics is physical recreations that can assist optimize children's development, gymnastic actions are very appropriate to assist the improvement of crucial essential actions that are vital for bodily endeavour in other sports, specifically in phrases of controlling attitude and motion efficiently and efficiently. Gymnastics usually include abilities that include a rich sample of motion, which in its implementation is very based on three components, namely: Locomotors, Non-Locomotors and manipulative, although the pattern of movement was once virtually very unlimited, however specialists agree that in gymnastics there are at least 7 patterns action which is very dominant, so often referred to as Dominant Movement Patterns (Russell, 1986; Schembry, 1983; Mahindra, 2001). The seven patterns are: Landing, Static position, Locomotors, Swing, rotation, Repulsion, Heightand kites. If viewed from the seven dominant action patterns above, we can conclude that the most necessary component is gymnastics is broadly speaking strength, speed and power.

These three elements are inherently contained in almost all dominant patterns of action which are characteristic of the look of gymnastics. Gymnastics formation in this learn about uses flooring gymnastics, where college students operate basic actions that exist on the floor range artistic gymnastics. Movements made include: the front roll, rear roll, wheel, and tiger. Gymnastics formation or also referred to as fundamental gymnastics is a body workout that used to be chosen and created intentionally and planned, arranged systematically and methodically, with the intention to form the body. The child's physique desires to be formed primary mind-set and action first, so that the body is always in the proper country of attitude. Understanding the mind-set of the attitude of the body in a nation of silence and in a country of movement. Silent posture, such as standing, squatting, sitting, and lying down, while posturing, such as walking, running, jumping, jumping, hitting, and kicking.

According to Sumanto & Sukiyo (1991) stated that one of the functions of gymnastic formation is to make the physique remain in a state of proper attitude, and if an incorrect posture occurs, it must without delay right it, so that it will become correct. Furthermore Sumanto & Sukiyo (1991) states that quite a few possibilities that can motive the prevalence of wrong posture include:Innate from birth, Less or not fulfilled food, substances, Disease or accident, Weakness of the muscle groups of the body, Weakness of skeletal bones, wrong habits. Mistakes in posture brought about by using the possibility these possibilities include: (1) Kyphosis, which is a structure of bodily error brought about by protrusion curvature of the backbone of the back. If the returned of the spine bends, then the the front of the spinal association becomes concave. (2) Lordosis, which is a form of physique error

caused via protrusion of the spine in the lumbar region, lumbar region, so that the again of the spinal column is curved, and the pelvis is typically pushed forward down. This situation reasons the returned of the waist muscle groups appear short. c. Scoliosis, which is a form of physique error caused by spinal deviations.

If the deviation is viewed from the back, the protrusions of the spine are not in a straight line. Deviations can take place to the left or right, toward the again or in the direction of the waist. Preventive efforts that can be carried out so that adolescents keep away from errors in attitudes and basic movements of the physique is to get youth to constantly make the right attitude and movement. We want to be aware of the habits of children, especially in the school surroundings that can have an adverse effect on posture, such as the addiction of sitting incorrectly at some stage in category lessons, or the habit of carrying a school bag, which can allow youth to have kyphosis and ordosis, posture or scoliosis. Sumanto & Sukiyo (1991) country that instilling the right posture with self-habituation as long as teenagers are nevertheless in the stage of boom has enormous have an impact on and benefits for their lives in the future, such as: (1) helping the growth of adolescents in the path they need to Prevent structure blunders and posture two; (2) Prevent habits that should not; (3) living up to the importance of getting to know posture and gestures.

#### **METHODS**

This research includes quantitative descriptive research, because the purpose of this study is determine the contribution of physical condition to Gymnastic basic skill. The research methods used are surveys using tests and measurements. The aim of this study to determine the contribution of physical condition to Gymnastic basic skill. This Study is survey and used descriptive qualitative method. 82 students, who's aged 18-19 years and find out about in Sport Coaching Education Department, Sport Science Faculty of Yogyakarta, State University recruited as samples. Data collection techniques used tests and measurements of biomotor (physical condition) and gymnastic basic skills. As for the instrument as an indicator of the talent identification of athletes used in the study is: (a) Physical Ability Test (sit and reach, standing balance, broadjump, vertical jump, side step test agility, push up, and sit up; (b) gymnastic basic skill (forward roll, back roll, tiger sprong, split, Cartwheel, headstand, handstand, roll kip, round off, and handspring.

The collected data is then analyzed using quantitative descriptive analysis techniques by presenting data with tables. The sampling technique was based on a purposive sampling taking into consideration the research objectives. Regression test was applied as part of the Commented [Editor3]: Tempatnya di akhir introduction

data analysis techniques.

Result

Table1: Correlation between items physical conditioning and gymnastic basic skills

			Co	rrelations					
		Sit and Reach (X1)	Standing Balance (X2)	Broad Jump (X3)	Vertical Jump (X4)	Side Step Agility (X5)	Push Up (X6)	Sit Up (X7)	competence (Y)
Sit and Reach (X1)	Pearson Correlation	1	.162	.254	.068	.147	.403**	.165	.167
(A1)	Sig. (2-tailed)		.197	.041	.593	.242	.001	.190	.184
	N N	65	65	65	65	65	65	65	65
Standing Balance	Pearson	.162	1	.036	.155	099	.269*	012	.728**
(X2)	Correlation								
` ,	Sig. (2-tailed)	.197		.777	.217	.433	.030	.923	.000
	N	65	65	65	65	65	65	65	65
Broad Jump (X3)	Pearson	.254*	.036	1	.751**	.666**	.204	.386**	.432**
*	Correlation								
	Sig. (2-tailed)	.041	.777		.000	.000	.102	.001	.000
	N	65	65	65	65	65	65	65	65
Vertical Jump	Pearson	.068	.155	.751**	1	.496**	.094	.328**	.564**
(X4)	Correlation								
	Sig. (2-tailed)	.593	.217	.000		.000	.454	.008	.000
	N	65	65	65	65	65	65	65	65
Side Step Agility	Pearson	.147	099	.666**	.496**	1	.194	.389**	.260*
(X5)	Correlation								
	Sig. (2-tailed)	.242	.433	.000	.000		.122	.001	.036
	N	65	65	65	65	65	65	65	65
Push Up (X6)	Pearson	.403**	.269*	.204	.094	.194	1	.480**	.510**
	Correlation	001	020	.102	.454	.122		.000	000
	Sig. (2-tailed) N	.001 65	.030	.102	.454	65	65	.000	.000 65
		.165	012	.386**		.389**	.480**		.387**
Sit Up (X7)	Pearson	.103	012	.560***	.328***	.369***	.460***	1	.367***
	Correlation	.190	.923	.001	.008	.001	.000		.001
	Sig. (2-tailed) N	.190	.923	65	.008	65	.000	65	.001
. (37)		.167	.728**				.510**		
competence (Y)	Pearson	.10/	.120	.432***	.504***	.200	.510**	.367	1
	Correlation	.184	.000	.000	.000	.036	.000	.001	
	Sig. (2-tailed) N	65	65	65	.000	.030	65	65	65
	11	0.5	03	0.5	0.5	0.5	0.5	03	0.5

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

The result from the above table showed a strong correlation between the items from physical condition and gymnastic. The result was presented as the following: sit and reach is correlated with broad jump and push up respectively with p value: 0.041 and 0.001. Standing balance was correlated with push up and competence respectively p value: 0.030 and 0.000. Broad jump correlated with sit and reach, vertical jump, side step agility, sit up, and competence consecutively p value: 0.041; 0.000; 0.000; 0.001; 0.000. The vertical jump was correlated with broad jump, side step agility, sit up, and competence with respectively r = 0.751; 0.496; 0.328, and 0.564. There was a strong correlation from side step agility and broad jump (r = 0.666), vertical jump (r = 0.496), sit up (r = 0.389), and competence (r = 0.496), sit up (r = 0.389), and competence (r = 0.496).

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

0,260). The item push up was correlated with sit and reach, standing balance, sit up and competence respectively with p value: 0,001; 0,030; 0,000, and 0,000. Next the sit up item was correlated with broad jump (p: 0,001); vertical jump (p: 0,008); sit step agility (p: 0,001), and competence (p: 0,001). The last correlation was found between competence and standing balance (p: 0,000), broad jump (p: 0,000), vertical jump (p: 0,000), side step agility (p: 0,036), push up (p: 0,000), and sit up (p: 0,001). In few words the data research showed that there is a strong correlation between physical condition and gymnastic basic skills.

Table 2. Linear regression result

Variable	Sig.	Explanation
Physical Ability*	0.032	significant
Gymnastic Skill		

From the result above the linear regression showed that the more physical condition is performed the better is gymnastic.

From the table above it can be considered that the results of the linier Regression check confirmed that physical capability have vast impact on gymnastic skill. This potential that excellent bodily situation will be able to help the appearance of correct gymnastic skills. If a person's bodily condition is no longer correct then his gymnastic look will no longer be maximal. There is need many element to be consist of in artistic. Gymnastics talent scouting instrument. Gymnastics is a type of complicated exercise. There are countless elements or factors wished to do gymnastic movements. Each motion has its personal biomotor structure and needs. So that the influential bio motor will be in accordance with the type of motion carried out. When learning gymnastics competencies one has to stick to methodological standards of complicated motor capabilities acquisition after accomplishing appropriate degree of simple motor capabilities (A. L. Claessens). The anthropometric traits, somatotype, physique composition, and organic maturation traits have been beneficial in the prediction success of the gymnastics opposition. These elements have been used extensively during the initial identification section and the education technique (Massida, 2013).

Table 3: Measurement of physical conditioning items

Items	Pre-test	Posttest
	25.254.5	12.1000
Sit and Reach	37.3615	43.1000
Standing Balance	39.0825	82.2266
Broad Jump	2.1535	2.1646
Vertical Jump	52.86	53.46
Side Step Agility	20.38	39.89
Push Up	34.32	37.57
Sit Up	38.17	44.74

The above table showed full progress of the items in developing the gymnastic basic skills, there is significant improving between them.

**Table 4: Paired Samples Statistics** 

	Mean	N	Std. Deviation	Std. Error Mean
pretest	32.0468	7	16.24459	6.13988
posttest	43.3073	7	23.65446	8.94055

The high standard deviation showed the different effect from the item to the gymnastic basic skills

Table 5: Coefficients<sup>a</sup>

		Collinearity Statistics			
Model					
		Tolerance	VIF		
1	Sit and Reach (X1)	.768	1.302		
	Standing Balance (X2)	.812	1.231		
	Broad Jump (X3)	.292	3.424		
	Vertical Jump (X4)	.386	2.592		
	Side Step Agility (X5)	.520	1.924		
	Push Up (X6)	.595	1.679		
	Sit Up (X7)	.631	1.586		

To assess collinearity, we consider the variance inflation factor (VIF). As can be concluded from Table 5, the VIF values in our study are well below the threshold value of 0.50, indicating that collinearity is not a problem (Hiba& Faisal, 2018).

Table 6: Gymnastic basic skills

Items	Pre-test	Posttest	
forward rolling	63.14	77.69	
Behind rolling	60.77	76.20	
Tiger Spring	60.40	77.12	
Rolling	60.94	76.00	
Jumping	64.74	76.60	
Split	64.43	77.15	
Handstand1	54.60	72.12	
Handstand2	57.46	73.49	
Roll Kip	54.22	67.26	
Stat	53.38	68.89	
Round Off	54.15	71.66	
Hand Spring	53.32	66.54	

**Table 7: Group Statistics** 

Class	N	Mean	Std. Deviation	Std. Error Mean
1.00	12	58.4625	4.44063	1.28190
2.00	12	73.3933	4.05550	1.17072

**Table 8: Independent Samples Test** 

				t-test	for	equality	means	95%
		Statistics	3	confid	ence			
	F	Sig	t	dd			sig(2-taill	ed)
Test equality variance assumed	.509	.483	-8.600	22			.000	
Equality variance no assumed			-8.600	21.821	I		.000	

The result showed that the gymnastic basic skills like: forward rolling, behind rolling, tiger spring, rolling, jumping, split, handstand1, handstand2, roll kip, stat, round off, and hand spring have been improved if we compare the their pre-test and their post-test, we found a great significant p value (p: 0.000). The resume from this research showed that the physical conditioning influenced the gymnastic basic skills.

#### Discussion

From the desk above, it can be considered that the results of linear regression take a seem at confirmed that physique capability has a big effect on gymnastic skills. This potential that a particular bodily state of affairs will be able to assist creative gymnastics (GA) is a variety of strength rhythm commercial enterprise that requires immoderate tiers of anaerobic capability and flexibility for profitable performance. , thrust, explosive force and traction. Enhancing competencies as properly as stability and craftsmanship on notable devices. Performance in artistic gymnastics is primarily based on a perfect compromise between the stage of physical fitness and the complicated technical capacities required on each device. Thus, an immoderate level of ordinary fitness overall performance is decisive for creative men (Mkaouer, Hammoudi-Nassib, Amara, & Chaabène, 2018). Aggressive gymnastics for girls is a multifaceted pastime that requires a high level of physical health. And capabilities to succeed. Speed, strength, 2 endurance, agility, 7 flexibility, stability and electricity are all physical abilities that play a role in the success of an aggressive gymnast. In addition, the physical capabilities of a gymnast can be related with the capability to maintain protected participation in sport. As such, it is critical that coaches, coaches and therapists concerned in endeavour are in a position to show the bodily skills and fitness level of an person gymnast as an potential to promote wholesome participation and except damage to sport (Bradshaw, 2004). Gym jumping is one of the many approaches you can wear when you get closer to a goal. Long jumps and pole vault have a much less complicated impact after the flight, but are similar to the gymnastics soar in the strategic movement. Up until the early 1980s, these sporting events had been designed to have stereotypical runs, just like the regular current consensus in gymnastics. It was once before believed that long jumpers and pole vaulters sincerely reproduced a pattern of steps taken at a certain distance to get a quick and straight begin (Lundin and Berg, 1993). Studies as they have been carried out with the help of Lee et al. (1982) and Hay (1988) have modified this thought of stereotypical hiking in such a way that athletes ought to use their imagination and foresight to manipulate their walking approach closer to the starting point. Although a lot of lookup has been performed on gymnastics leaps that have measured the remaining velocity of takeoff technique and mechanics (e.g. Bradshaw and Le Rossignol, 2002; Takei et al., 2000; Bruggemann and Nissenen, 1981), there is facts on this news item lacking. The relationship between the visible manages and the steps of the packing containers must be top installed. An appropriate end result in the gymnastics jump requires the optimization of each movement factor as nicely as

the approach, the obstacle, the start, the pre-flight, the contact with the horse, the post-flight and the landing. Therefore, the strolling method for gymnastics jumps can't be not noted when athletes and coaches attempt to optimize the basic overall performance of this complex skill. A complete biomechanical study of the 1997 World Championships in gymnastics the use of a laser speed device confirmed that top body arches require large tempo degrees of the strolling technique (Krug et al., 1998). The chests are assigned a numerical assignment rate as a beginning rating (maximum 10.0), towards which the universal performance is assessed. Technical mistakes are then deducted from this score, for example a deduction of 0.5 for a fall. There are a variety of jumping methods in gymnastics that are practiced in the global opposition diploma. There are 4 sorts of vital vaults when classified according to their entry and contact traits with horses (Figure 1). The gymnast takes off at the Spring Entry Jump and comes into contact with the horse in the previous entry position. Second, the enter subject of Tsukahara, in which the gymnast begins in develop in the entry position, rotates a hundred and eighty ° at a certain point in the flight section and contacts the horse in a role d 'behind the entrance. Third, there is the Yurchenko entry jump, in which the gymnast ends a roundabout on the board and ends in the rear entry position on the start board and additionally on the exhibit jumper. Finally, the Yurchenko U-turn entry vault where the gymnast takes off from the board in the back entry position, performs a 1/2 flip (180 °) throughout the flight phase and contacts the horse in the front entry position. Measuring the usual unique performance in gymnastics is essential in deciding to increase and achieve gymnastics skills. In the rings, most of the capacities transfer or are maintained rather slowly (ie isometric). Therefore, the isometric problem of energy is necessary for gymnasts. Bernasconi et al. tested that all high level gymnasts perform the useful resource scale at the height of the rings. In addition, Bodray et al. advised that the circle made on the pommel horse is a sequence of complex movements in which amplitude, dominated by an excessive level of isometric electricity, is the key aspect of performance. Another nice aspect that emerges from the results of the physical health profile is flexibility. This tremendous physical form was once recognized as one of the determinants of performance in gymnastics. For example, Sands et al have stated that the flexibility stage can be seen as one of the pillars of health characteristics in GA. Overall, the development of a number of health characteristics (i.e. speed, power, energy endurance and flexibility) seems to be very important in building the gymnastics profile of men elite. For this reason, an objective assessment of young gymnasts (i.e. a professional test battery for each age group) was simply born.

#### **CONCLUSION**

This study was based on the evaluation of the physical conditioning about the gymnastic basic skills, the result showed that there were positive impacts for developing the performance of the students or athletes. For physical teachers and coaches they invited to use the last latest for increasing the outcomes escorted.

#### ACKNOWLEDGMENT

Physical conditions have an important role in achieving good gymnastic performance. Each movement has different biomotor needs. The trainer must train the dominant biomotor used.

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Mohon artikel direvisi sesuai panduan CP, seperti terlampir.

Salam,

Endah Retnowati

On Wed, 11 Dec 2019 at 09:49, Risti Risti Nurfadhila <<u>risti.n@uny.ac.id</u>> wrote:

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Endah Retnowati Cognitive psychology, instructional design, mathematics education Dept. of Mathematics Education Universitas Negeri Yogyakarta

<u>Can Collaborative Learning Improve the Effectiveness of Worked Examples in Learning Mathematics?</u>

Retnowati, Endah; Ayres, Paul; Sweller, John

doi: 10.1037/edu0000167

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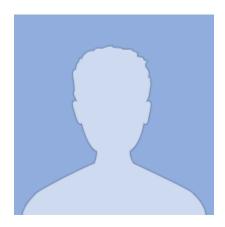


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kepada Endah

Baik mb Retno, segera kami lakukan dan trimakasih.

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Mohon artikel direvisi sesuai panduan CP, seperti terlampir.

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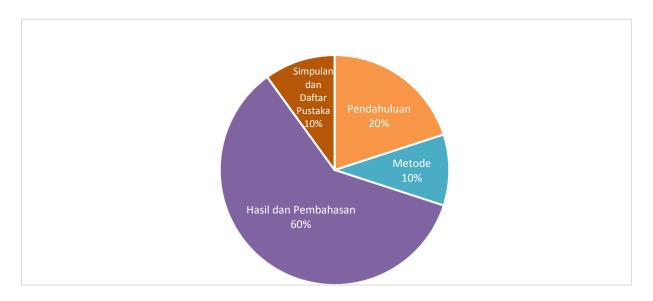
## PANDUAN PENULISAN ARTIKEL

#### A. UMUM

Naskah yang dikirim ke Jurnal *Cakrawala Pendidikan* adalah naskah yang berbasis hasil penelitian terkini di bidang pendidikan baik dengan pendekatan kuantitatif maupun kualitatif. Subjek yang dilibatkan dapat berasal dari jenjang pendidikan usia dini sampai dengan perguruan tinggi, baik jalur pendidikan formal, informal, maupun nonformal.

Isi naskah ditulis dalam bahasa Indonesia atau bahasa Inggris. Bahasa dan tata tulis termasuk salah satu penilaian naskah yang diterima. Penulis disarankan untuk memeriksa dengan cermat dan jika perlu menggunakan jasa *proofreader*. Penulis diwajibkan menghindari penjiplakan karya orang lain (plagiasi) kecuali dengan cara-cara yang dibenarkan. Redaktur Jurnal *Cakrawala Pendidikan* memeriksa tingkat kesamaan setiap naskah menggunakan perangkat lunak *plagiarism* dan hanya menoleransi tidak lebih dari 20%.

Secara keseluruhan, badan artikel berjumlah antara **5.000–8.000** kata termasuk judul, abstrak, dan daftar pustaka. Pengetikan artikel menggunakan perangkat lunak *Microsoft Word* dengan spasi antarbaris 1,5, jenis huruf *Times New Roman* ukuran 12, dan dalam satu kolom untuk memudahkan proses telaah, serta dalam format .doc, .docx, atau .rtf (tidak dalam format pdf). Nomor halaman tidak perlu dituliskan. Badan artikel terdiri atas empat bagian utama, yaitu pendahuluan, metode, hasil dan pembahasan, serta simpulan. Pembobotan panjang per bagian ditunjukkan pada Gambar 1.



Gambar 1. Proporsi Panjang Bagian Artikel

#### B. PENULISAN ARTIKEL

# JUDUL ARTIKEL DITULIS SINGKAT DAN PADAT SESUAI SUBSTANSI ISI (Center, Bold, Times New Roman 12, Maksimal 13 kata)

Penulis Pertama<sup>1\*</sup>, Penulis Kedua<sup>1</sup>, & Penulis Ketiga<sup>2</sup> (Semua nama lengkap tanpa gelar)

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**Abstrak:** Abstrak harus mencerminkan keseluruhan substansi isi artikel dan mampu membantu pembaca untuk menentukan relevansinya dengan minat serta memutuskan apakah akan membaca dokumen secara keseluruhan. Abstrak berisi pernyataan tentang latar belakang masalah, tujuan penelitian atau fokus masalah, metode atau tahapan penting penelitian, serta temuan dan simpulan utama. Judul dan abstrak ditulis dalam 2 bahasa (Inggris dan Indonesia), masing-masing abstrak dalam 1 paragraf, jarak 1 spasi, dan dengan jumlah antara 150–200 kata.

Kata Kunci: berisi istilah penting dan substansi artikel, dapat mempermudah pembaca untuk menemukan artikel, jumlah 3-5 istilah, serta ditulis di bawah abstrak dicetak tebal dan miring.

#### **PENDAHULUAN**

Pendahuluan antara lain berisi latar belakang masalah, pendalaman permasalahan, atau kesenjangan antara yang diidealkan dan yang senyatanya, didukung oleh teori dan penelitian mutakhir yang relevan dengan masalah, mempunyai nilai baru penelitian (atau manfaat) yang merupakan inovasi, dan diakhiri tujuan penelitian. Bagian ini ditulis sebanyak kurang lebih 20% dari badan artikel termasuk judul dan abstrak.

## **METODE**

Metode harus ditulis singkat, padat, jelas, tetapi mencukupi sehingga dapat direplikasi. Bagian ini berisi pendekatan penelitian, subjek, prosedur pelaksanaan, penggunaan alat, bahan, dan instrumen, serta teknik pengumpulan dan analisis data, namun bukan berupa teori. Jika dipandang perlu, ada lampiran mengenai kisi-kisi instrumen atau penggalan bahan yang digunakan. Jika ada rumus-rumus statistik yang digunakan, rumus yang sudah umum digunakan **tidak perlu** ditulis. Seluruh ketentuan spesifik yang ditetapkan oleh peneliti dalam rangka mengumpulkan dan menganalisis data dijelaskan pada bagian metode ini. Bagian ini ditulis sebanyak maksimum 10% (untuk penelitian kualitatif) atau maksimum 15% (untuk penelitian kuantitatif) dari badan artikel.

#### HASIL DAN PEMBAHASAN

Untuk memudahkan pemahaman dan pembacaan, hasil penelitian dideskripsikan terlebih dahulu baru dilanjutkan dengan pembahasan. Subjudul hasil dan subjudul pembahasan disajikan terpisah. Bagian ini harus menjadi bagian yang paling banyak, minimum 60% dari keseluruhan badan artikel.

#### Hasil

Hasil dapat disajikan dalam bentuk tabel angka-angka, grafik, deskripsi verbal, atau gabungan antara ketiganya. Tabel, grafik, atau gambar tidak boleh terlalu panjang, terlalu besar, atau terlalu banyak. Penulis sebaiknya menggunakan variasi penyajian tabel, grafik,

atau deskripsi verbal. Tabel dan grafik yang disajikan harus dirujuk dalam teks. Cara penulisan tabel ditunjukkan pada Tabel 1. Tabel tidak memuat garis vertikal (tegak) dan garis horisontal (datar) hanya ada di kepala dan ekor tabel. Ukuran huruf isian tabel dan gambar boleh diperkecil. Angka-angka di dalam tabel tidak boleh diulang-ulang dalam narasi verbal baik sebelum maupun sesudahnya.

Tabel 1. Bobot Panjang Bagian Badan Artikel

No. Nama Bagian		Panjang	Keterangan
INO.	Nama Dagian	dalam Persen	
1.	Pendahuluan	20	Maksimum (termasuk judul dan abstrak)
2.	Metode	10	Untuk penelitian kuantitatif dapat sampai 15%.
3.	Hasil dan Pembahasan	60	Minimum
5.	Simpulan dan Daftar Pustaka	10	Kurang lebih

Penulisan angka-angka memperhatikan ketentuan sebagai berikut. Untuk naskah yang ditulis dalam Bahasa Indonesia, angka ribuan diberi penanda titik, misalnya: 1200300 ditulis 1.200.300. Angka yang berupa bilangan desimal ditulis menggunakan tanda koma sampai dua angka di belakang koma, contoh 12,34. Apabila angka bernilai kurang dari 1, maka angka nol di depan koma harus ditulis, contoh 0,12.

Untuk naskah yang ditulis dalam Bahasa Inggris, angka ribuan diberi tanda koma, misalnya 1200300 ditulis 1,200,300. Angka yang berupa bilangan desimal ditulis menggunakan tanda titik sampai dua angka di belakang koma, contoh 12.34. Apabila angka bernilai kurang dari 1, maka angka nol di depan titik tidak ditulis, contoh .12.

Simbol atau notasi matematika yang berupa huruf alfabet ditulis dalam cetak miring, tetapi yang berupa huruf Yunani ditulis tegak menggunakan simbol yang tepat. Tanda sama dengan dituliskan dengan jeda satu ketuk sebelum dan sesudahnya, sebagai contoh (angka dalam bahasa Inggris): r = .456; p = .008. Untuk hasil statistik yang bergantung pada derajat bebas seperti nilai t, F, atau Z, harus diikuti dengan penulisan nilai derajat bebasnya dalam tanda kurung. Contoh: t(52) = 1.234; F(1, 34) = 4.567. Uji statistik sebaiknya disertai pengitungan *effect size*: uji-t menggunakan *cohen's d* dan uji-F menggunakan *partial eta squared* atau lainnya sesuai referensi yang digunakan.

Hasil penelitian pendekatan kualitatif yang bersumber dari wawancara, pengamatan, penafsiran isi teks, dan lain-lain dikondensasikan, disarikan, atau dibuat ke dalam ringkasan substansial. Jadi, yang disajikan adalah temuan-temuan substansial yang dapat disajikan dalam bentuk tabel-tabel deskriptif untuk memudahkan pemahaman oleh pembaca. Potongan wawancara, deskripsi hasil pengamatan, kutipan teks, dan lain-lain yang memuat temuan-temuan utama atau jawaban dari pertanyaan penelitian disajikan dalam pembahasan sebagai contoh otentik.

#### Pembahasan

Pembahasan dimaksudkan untuk menginterpretasikan dan memaknai hasil penelitian sesuai dengan teori yang digunakan dan tidak sekadar menjelaskan temuan. Pembahasan harus diperkaya dengan merujuk atau membandingkan hasil-hasil penelitian sebelumnya yang telah diterbitkan dalam jurnal ilmiah bereputasi dan tidak berasal dari jurnal abal-abal (*predatory journal*). Dalam pembahasan disarankan juga berisi pengintegrasian hasil penelitian ke dalam kumpulan teori atau pengetahuan yang telah mapan, penyusunan teori baru, modifikasi teori yang telah ada, serta implikasi hasil penelitian.

## Cara Pengutipan

Penulisan rujukan dalam badan artikel menggunakan pola berkurung (...). Jika hanya ada satu penulis: contoh (Retnowati, 2018); jika ada dua penulis: contoh (Nurgiyantoro & Efendi,

2017). Jika ada dua sampai lima penulis, untuk penyebutan yang pertama ditulis semua: contoh (Retnowati, Fathoni, & Chen, 2018) dan penyebutan berikutnya ditulis (Retnowati et al., 2018). Penulis lebih dari tiga orang hanya ditulis pengarang pertama diikuti et al. (ditulis tegak), contoh (Booth et al., 2015); Penulisan rujukan juga dapat ditulis dengan nama di luar tanda kurung, misalnya Nurgiyantoro & Efendi (2017) sesuai dengan stile penulisan. Jika pernyataan yang dirujuk merupakan kutipan langsung atau fakta tertentu, halaman harus disertakan: contoh (Nurgiyantoro & Efendi, 2017:144) atau jika mengambil substansi dari beberapa halaman: contoh (Nurgiyantoro & Efendi, 2017:144-146).

Perujukan lebih **disarankan** bukan berupa kutipan langsung atau tidak memuat terlalu banyak kutipan langsung. Namun, jika ada kutipan langsung yang jumlahnya kurang dari 40 kata, ia harus ditulis dalam paragraf (tidak dipisah) dan **dengan diberi tanda kutip** ("..."). Jika kutipan langsung berisi 40 kata atau lebih, ia ditulis dalam blok (terpisah dari paragraf), menjorok setengah inchi dari pinggir, **tanpa diberi tanda kutip** dan diikuti nama penulis, tahun, halaman dalam tanda kurung (nama, tahun:halaman).

Jika suatu pernyataan saripati diambil dari beberapa referensi, semua sumber ditulis dengan menyebutkan semua referensi urut alfabet dan tanda titik koma (;) untuk memisahkan antarsumber; contoh (Sahlberg, 2012; Schunk, 2012; Retnowati, Fathoni, & Chen, 2018). Untuk sumber rujukan terjemahan, yang dirujuk adalah nama pengarang asli, tahun buku terjemahan dan judul buku asli. Jika ada dua rujukan dengan nama pengarang dan tahun yang sama, penulisan tahun ditambah huruf alfabet, contoh (Schunk, 2012a) dan Schunk (2012b).

#### **SIMPULAN**

Simpulan tidak sekadar mengulangi data, tetapi berupa substansi pemaknaan. Ia dapat berupa pernyataan tentang apa yang diharapkan, sebagaimana dinyatakan dalam bab "Pendahuluan" yang akhirnya dapat menghasilkan bab "Hasil dan Pembahasan" sehingga ada kompatibilitas. Selain itu, dapat juga ditambahkan prospek pengembangan hasil penelitian dan prospek aplikasi penelitian selanjutnya ke depan (berdasarkan hasil dan pembahasan).

## **UCAPAN TERIMA KASIH**

Bagian ini berisi ucapan terima kasih kepada sponsor, pendonor dana, narasumber, atau pihak-pihak yang berperan sangat penting dalam pelaksanaan penelitian. Jika menyebutkan nama seseorang atau lembaga sebagai ucapan terima kasih, penulis wajib meminta ijin kepadanya. Penulis tidak perlu menuliskan ucapan terima kasih kepada redaktur.

#### **DAFTAR PUSTAKA**

Daftar pustaka diurutkan sesuai dengan alfabet. Semua yang dirujuk dalam artikel harus tertulis dalam daftar pustaka dan sebaliknya semua yang tertulis dalam daftar pustaka harus dirujuk dalam artikel. Sumber pustaka rujukan sebaiknya lebih banyak yang berasal dari jurnal daripada buku atau prosiding. Penulis **wajib** menyajikan daftar pustaka dengan valid sesuai dengan sumber aslinya dan menuliskan doi (*digital object identifier*) khususnya untuk pustaka berupa jurnal. Penulisan kota penerbit membedakan kota di USA dan luar USA. Kota di USA disertai dengan inisial nama degara bagiannya, contoh: kota Boston berada di Massachuset, ditulis Boston, MA.

Contoh penulisan daftar pustaka sebagai berikut.

(Jenis: buku *author* sama dengan penerbit)

American Psychological Association. (2019). *Publication manual of the American Psychological Association* (7th Ed.). Washington, DC: Author.

(Jenis: *e-book*)

Bransford, J. D., Brown, A. L., & Cocking, R. R. (2005). *How people learn: Brain, mind, experience and school.* https://www.nap.edu/catalog/9853/how-people-learn-brain-mind-experience-and-school-expanded-edition.

(Jenis: *edited book* dengan dua editor atau lebih)

Tobias, S., & Duffy, T. M. (Eds.). (2009). *Constructivist instruction: Success or failure?* New York, NY: Routledge.

(Jenis: book section)

Sahlberg, P. (2012). The most wanted: Teachers and teacher education in Finland. In L. Darling-Hammond & A. Lieberman (Eds.). *Teacher education around the world:* changing policies and practices. London: Routledge, pp. 22-44.

(Jenis: buku satu pengarang)

Schunk, D. H. (2012a). *Learning theories an educational perspective*. Boston, MA: Pearson Education.

(Jenis: buku bahasa Inggris yang diterjemahkan ke bahasa Indonesia, judul asli tetap)

Schunk, D. H. (2012b). *Learning theories: An educational perspective* (E. Hamdiah & R. Fajar, Trans.). Yogyakarta: Pustaka Pelajar. (Original work published 2012).

(Jenis: buku bahasa Indonesia bukan hasil terjemahan, ditulis judul asli ditambah terjemahan judulnya)

Nurgiyantoro, B., Gunawan, G., & Marzuki, M. (2017). *Statistik terapan untuk penelitian ilmu sosial*. [Applied statistics for social science research]. Yogyakarta: UGM Press.

(Jenis: buku dua pengarang)

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (Fifth ed.). Needham Heights, MA: Allyn & Bacon.

(Jenis: artikel jurnal daring/online)

Nurgiyantoro, B. & Efendi, A. (2017). Re-Actualization of puppet characters in modern Indonesian fictions of the 21<sup>st</sup> century. *3L: The Southeast Asian Journal of English Language Studies*, 23 (2), 141-153. doi: 10.17576/3L-2017-2302-11.

(Jenis: artikel jurnal tiga pengarang)

Retnowati, E., Fathoni, Y., & Chen, O. (2018). Mathematics problem solving skill acquisition: learning by problem posing or by problem solving? *Cakrawala Pendidikan*, 37(1), 1-10. doi: 10.21831/cp.v37i1.18787.

(Jenis: artikel jurnal dengan 3-7 pengarang, namanya ditulis semua)

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## **Appendix**

Appendix (lampiran) tidak wajib ada. Lampiran tidak boleh lebih dari satu halaman.

# CORRELATION OF PHYSICAL CONDITION TO GYMNASTICS BASIC SKILLS OF PKO FIK UNY STUDENTS 2018

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#### **Abstract**

Physical conditions are considered a very important foundation for developing techniques. The aim of this study to determine the contribution of physical condition to Gymnastic basic skill. This Study is survey and used descriptive qualitative method. 82 students, whose aged 18-19 years and study in Sport Coaching Education Department, Sport Science Faculty of Universitas Negeri Yogyakarta, recruited as samples. Data collection techniques used tests and measurements of biomotor and gymnastic basic skills. Data analysis techniques using linear regresion. The results showed that there is significant effect of physical condition with basic skill of Gymnastics.

Keywords: Gymnastic, Physical Condition, Basic Skill

## INTRODUCTION

In achieving maximum movement skills in a sport is influenced by several factors. These factors need to be known in order to maximize the achievement of the learning process. Gymnastics is one of the sports that is taught to sports students. Basic gymnastics skills courses are Fakulter courses that must be taken by all students of the Faculty of Sport Science, Yogyakarta State University. The material given specifically for PKO Study Program students is Fitness Exercise and Forming Gymnastics, the theoretical lectures delivered include the basic motion techniques in gymnastics formation. To be able to maximize the achievement of basic motion learning exercises requires a study of the factors that affect the achievement of learning the motion.

One of the factors that is thought to greatly influence the achievement of movement skills is a physical condition that supports. Physical condition is a very important element in almost all sports including the gymnastics exception. Evaluation results obtained in the basic skills courses of gymnastics there is no maximum achievement of learning basic motion exercises, so it is necessary to do research in an effort to help students achieve maximum learning outcomes.

Based on literature studies and data from students in the field, the researcher indicated that the PKO students' physical condition was one of the influential factors. Pre dominant biomotor special gymnastics in PKO students who basically are not only branches of gymnastics finally less trained. Based on these problems the researchers sought to conduct a study of the Contribution of Physical Conditions to the Basic Skills of Gymnastics PKO FIK UNY Students.

Physical condition in terms of physiology is the ability of a person can be known to what extent his ability as a supporter of running sports activities. The physical condition is one of the intact unity of components that cannot be separated just like that, either its enhancement, its maintenance. This means that in an effort to improve physical conditions, all of these components must be developed, although here and there a priority system is carried out according to the state or status of each component and for what needs the state or status needed (M. Sajoto, 1988).

Physical ability is the ability to function organs in physical activity (Sugiyanto, 1993). Physical ability is important to support psychomotor activity. Skillful movements can be carried out if the physical abilities are adequate.

Components of physical condition according to M. Sajoto, there are ten components, namely as follows:

## 1. Strength (Strength)

Strength is a component of a person's physical condition about the ability to use muscles to accept the burden of work (M. Sajoto, 1988). Strength is the ability of a muscle or group of muscles to hold or accept a workload (Eri Pratiknyo Dwi Kusworo, 2000).

Strength plays an important role, because strength is the driving force of every activity and is a requirement to improve achievement.

#### 2. Endurance (Endurance)

Endurance is the ability of a person to use his muscles to contract continuously in a relatively long time with a certain burden. (M. Sajoto, 1988).

Endurance refers to the ability to do work whose intensity is determined within a certain time, this is called stamina. An athlete can be said to have a better power than if he is not easily tired or keep moving in a state of fatigue.

## 3. Muscle power (Muskular Power)

Muscle power is the ability of a person to use maximum power that is done in the shortest possible time (M. Sajoto, 1988)

## 4. Speed (Speed)

Speed is a person's ability to work on continuous movements in the shortest possible time (M. Sajoto, 1988). Speed is the ability that allows people to change direction or carry out the same or not the same movements as quickly as possible (Eri Pratiknyo Dwi Kusworo, 2000). The speed can be distinguished between the speed of movement and the speed of the explosit.

## 5. Flexibility

Flexibility is the effectiveness of a person in adjusting to all activities with broad body measurements. This will be very easily characterized by the level of flexibility on the entire surface of the body (M. Sajoto, 1988). Flexibility is the maximum possible motion that can be carried out by a joint (Eri Pratiknyo Dwi Kusworo, 2000)

Poor flexural power also affects speed and endurance because, muscles have to work hard to overcome resistance to long strides.

## 6. Agility (Agility)

Agility is the ability of someone to change the position of a certain area, someone who is able to change a different position in high speed with good coordination, means that the agility is quite good (M. Sajoto, 1988). Agility is the ability to change direction quickly and effectively while moving or running at almost full speed (Eri Pratiknyo Dwi Kusworo, 2000). The test used to measure the agility of someone who is very simple is suttle-run and dodging-run.

#### 7. Balance (Balance)

Balance is a person's ability to control the nerves of the muscles (M. Sajoto, 1988). Balance is the ability to maintain proper posture and correct when doing a movement. (Eri Pratiknyo Dwi Kusworo, 2000)

## 8. Coordination

Coordination is the ability of a person to integrate a variety of different movements into a single movement pattern effectively (M. Sajoto, 1988). Coordination is a harmonious relationship of various factors that occur in a movement (Eri Pratiknyo Dwi Kusworo, 2000).

An athlete is said to have a good level of coordination if he is able to do the skills

properly and quickly and can complete the task of training.

## 9. Accuracy

Accuracy is the ability of a person to control free movements against a target, this goal can be a distance or maybe a direct object that must be charged with one area of the body (M. Sajoto, 1988).

## 10. Reaction

Reaction is the ability of a person to act immediately as soon as possible in response to stimuli caused by the senses of nerves, or other feelings (M. Sajoto, 1988). Reactions can be divided into three types of reactions to away stimuli, reactions to hearing and reactions to taste.

According to 18th century figures (in Imam Hidayat, 1996), there are 3 gymnastic criteria, namely: (1) exercise must be selected to influence the body; (2) the movements must be correct; (3) each dose exercise must be in accordance with its purpose. Gymnastics is a physical activity that can help optimize children's development, gymnastic movements are very suitable to help the development of fundamental fundamental movements that are important for physical activity in other sports, especially in terms of controlling attitude and motion effectively and efficiently.

Gymnastics generally contain skills that contain a rich pattern of motion, which in its implementation is very dependent on 3 components, namely: Locomotor, Non-Locomotor and Manipulative, although the pattern of motion was actually very unlimited, but experts agree that in gymnastics there are at least 7 patterns motion which is very dominant, so commonly called Dominant Movement Patterns (Russell, 1986; Schembry, 1983; Mahendra, 2001). The seven patterns are:

- 1. Landing
- 2. Static position
- 3. Locomotor (locomotor)
- 4. Swing
- 5. rotation
- 6. Repulsion (spring)
- 7. Height and kites (hight and flight)

If seen from the seven dominant motion patterns above, we can conclude that the most important component is gymnastics is mainly strength, speed and power. These three components are inherently contained in almost all dominant patterns of motion which are characteristic of the appearance of gymnastics.

Gymnastics formation in this study uses floor gymnastics, where students perform basic movements that exist on the floor number artistic gymnastics. Movements made include: front roll, rear roll, wheel, tiger sprong, stuut,

Gymnastics formation or also called basic gymnastics is a body exercise that was chosen and created deliberately and planned, arranged systematically and methodically, with the aim to shape the body. The child's body needs to be formed basic attitude and motion first, so that the body is always in the right state of attitude. Understanding the attitude of the attitude of the body in a state of silence and in a state of movement. Silent posture, such as standing, squatting, sitting, and lying down, while posturing, such as walking, running, jumping, jumping, hitting, and kicking.

According to Sumanto and Sukiyo (1991) that one of the functions of gymnastic formation is to make the body stay in a state of right attitude, and if a wrong posture occurs, it must immediately correct it, so that it becomes correct. Furthermore Sumanto and Sukiyo (1991) states that several possibilities that can cause the occurrence of wrong posture include:

- 1. Innate from birth
- 2. Less or not fulfilled food substances

- 3. Disease or accident
- 4. Weakness of the muscles of the body
- 5. Weakness of skeletal bones
- 6. Wrong habits

Mistakes in posture caused by the possibility these possibilities include:

- a. Kiposis, which is a form of bodily error caused by protrusion curvature of the spine of the back. If the back of the spine bends, then the front of the spinal arrangement becomes concave.
- b. Lordosis, which is a form of body error caused by protrusion of the spine in the lumbar region, lumbar region, so that the back of the spinal column is curved, and the pelvis is usually pushed forward down. This situation causes the back of the waist muscles look short.
- c. Scoliosis, which is a form of body error caused by spinal deviations. If the deviation is seen from the back, the protrusions of the spine are not in a straight line. Deviations can occur to the left or right, towards the back or towards the waist.

Preventive efforts that can be done so that children avoid mistakes in attitudes and basic movements of the body is to get children to always make the right attitude and movement. We need to be aware of the habits of children, especially in the school environment that can have an unfavorable effect on posture, such as the habit of sitting incorrectly during class lessons, or the habit of carrying a school bag, which can allow children to have kiposis, lordosis, posture or scoliosis.

Sumanto and Sukiyo (1991) state that instilling the right posture with self-habituation as long as children are still in the stage of growth has enormous influence and benefits for their lives in the future, such as:

- 1. Helping the growth of children in the direction they should
- 2. Prevent form errors and posture
- 3. Prevent habits that should not
- 4. Living up to the importance of mastering posture and gestures

## **METHODS**

This research includes quantitative descriptive research, because the purpose of this study is determine the contribution of physical condition to Gymnastic basic skill. The research methods used are surveys using tests and measurements. The aim of this study to determine the contribution of physical condition to Gymnastic basic skill. This Study is survey and used descriptive qualitative method. 82 students, whose aged 18-19 years and study in Sport Coaching Education Department, Sport Science Faculty of Universitas Negeri Yogyakarta, recruited as samples. Data collection techniques used tests and measurements of biomotor (physical condition) and gymnastic basic skills. As for the instrument as an indicator of the talent identification of athletes used in the study is: (a) Physical Ability Test (sit and reach, standing balance, broadjump, vertical jump, side step test agility, push up, and sit up; (b) gymnastic basic skill (forward roll, back roll, tiger sprong, kayang, split, Cartwheel, headstand, handstand, roll kip, stut, round off, and handspring.

The collected data is then analyzed using quantitative descriptive analysis techniques by presenting data with tables. The sampling technique was based on a purposive sampling taking into consideration the research objectives. Regression test was applied as part of the data analysis techniques.

#### FINDINGS AND DISCUSSION

Data analysis in this study is based on linear regression analysis on physical condition data and gymnastic skills of research subjects. based on linear regression analysis shows the following.

Table 1. Linear regression result

Variable	Sig.	Explanation
Physical Ability*	0.032	Signifikan
Gymnastic Skill		

From the table above it can be seen that the results of the linier Regresion test showed that physical ability have significant effect on gymnastic skill. this means that good physical condition will be able to support the appearance of good gymnastic skills. if a person's physical condition is not good then his gymnastic appearance will not be maximal.

There is need many factor to be include in artistic. Gynastics talent scouting instrument, gymnastics is a type of complex exercise, there are several components or elements needed to do gymnastic movements, each movement has its own biomotor form and needs, so that the influential biomotor will be in accordance with the type of motion carried out. When learning gymnastics skills one has to stick to methodological principles of complex motor skills acquisition after reaching suitable level of simple motor skills (A. L. Claessens).

The anthropometric traits, somatotype, body composition, and biological maturation characteristics have been useful in the prediction success of the gymnastics competition. These elements have been used widely during the initial identification phase and the training process (Massida, 2013).

#### **CONCLUSION**

A conclusion is not merely a re-statement of the data or findings, but a synthesis of key points and, as mentioned in the "Introduction" which eventually produces the "Results and Discussion" chapter so that there is compatibility. In addition, the prospects for developing research results and the prospects for future research applications (based on results and discussion) can also be added.

## **ACKNOWLEDGMENT**

Physical conditions have an important role in achieving good gymnastic performance. Each movement has different biomotor needs. The trainer must train the dominant biomotor used.

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