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Tactical Approach in Football Learning of PJKR FPOK UPI Student

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ABSTRACT

Football is a compulsory subject that must be taken by student in every study program of FPOK UPI. The purpose of this subject is to provide students with a football in supporting their profession as physical education teacher, coach/trainer, sport cultivator, and sport expert, later in the future after they had graduated from FPOK UPI. The characteristic of the subject is students are demanded not only to possess comprehension, skill, and organization of football, but also able to behave as a football agent who has high and good behavior.

The aims of this research are (1) to develop student's comprehension ability on football learning's material in FPOK UPI, (2) to improve student's comprehension, skill and experience, and understanding on football learning material, and (3) to increase student's football learning score.

Data collection was taken from evaluation which consists of daily examination, mid semester test, tasks and final test, both practical and theory. According to tests and data analysis, it can be concluded as follow: (1) students who get football's average score between A and B are 83 students or 75.67%, (2) who get average score above 2.00 or get C are 27 students or 34.32%, and (3) no one who get D and E or 0%. Generally, students of PJKR program of 2001/2002 can pass their football subject with percentage of 100%.

The Research Problem

The problem faced in football learning is the ineffective of football's learning model on the learning result of FPOK UPI's student. As a result, the purpose of football can't be achieved as maximum as possible. This has a direct impact on football subject and also will influence the academic achievement index (IPK).

The Research Method

The research method used in this research is experiment method. The research subject (respondent) is student of PJKR program of FPOK UPI, generation of 2006/2007 or semester IV. The sample amount is 111 students which consist of 91 male and 20 female. This sample was divided into two groups; group A consists of 56 students and group B 55 students. The research was conducted twice in a week, on Tuesday and Thursday or 32 meetings.

Data Information

Table 1.1

Distribution of test score, student's number, and football ability percentage of PJKR program's student of generation 2006/2007

No.	Test score interval	Score/grade	Student's amount	Percentage
1.	18 – 29	A	8 STUDENTS	13.51%
2.	13 – 17	В	69 STUDENT	62.16%
3.	8 – 12	С	27 STUDENTS	24.32%
4.	3 – 7	D	-	0%
5.	< 3	Е	-	0%
	AMOUNT		111 STUDENTS	100%

Table 1.2

Distribution of test score, student's number, and football ability percentage of PJKR program's student of generation 2005/2006

No.	Test score interval	Score/grade	Student's amount	Percentage
1.	18 – 29	A	15 Student	13.51%
2.	13 – 17	В	55 Student	62.16%
3.	8 - 12	С	39 Student	24.32%
4.	3 – 7	D	-	0%
5.	< 3	E	-	0%
	Amount		111 Students	100%

Table 1.3

Comparison of quality and score changing direction on football subject between PJKR program students of 2006/2007 and students of 2005/2006

Score	Student'	s amount	Perce	entage	Changing	Changing
					quality	direction
A	15	8	13.51%	15.62%	2.11%	Decrease
В	69	42	62.16%	57.29%	4.67%	Increase
C	27	46	24.32%	40.62%	40.62%	Decrease
D	-	-	0%	0%	0%	Constant
Е	-	-	0%	0%	0%	Constant
	111	96	100%	100%		

Conclusion

According to data analysis, it can be concluded that football learning ability for PJKR program of 2006/2007 points out that 74 students or 75.67% have football's average score between A and B, which is higher than average score between A and B for PJKR program's student of 2005/2006. For average score above 2.0 of get score C shows that 27 students or 24.3% lower than average score's percentage of C for PJKR program's student of 2005/2006.

Generally, it can be drawn that pass level of PJKR program's student of 2006/2007 on football subject points out a meaningful score/grade improvement. This shows that tactical approach potential in football learning is viewed more efficient rather than previous learning modes.

The comparison of student's presence in football subject between PJKR program's student of 2006/2007 and student of 2005/2006, shows that student of 2006/2007 is better by percentage of 87%:84%.

Reference

- Buschner, Craig A., (1994), *Teaching Children Movement Concepts and Skill*, Human Kinetics.
- Gibbon, Allan. (1973), *Teaching for Boys*, G.Bell & Sond LTD, London.
- Glavin, Ronnie. (1988), How to Play Soccer. Guinness Superlatives Ltd. London.
- Grahamn G., Parker, M., dan Holt-Hale, S. (1995), *Childern Moving*, Mountain View, CA;Mayfield.
- Griffin, L.L., Mitchell, S.A. & Oslin, J.L. (1997). *Teaching Sport Concepts and Skills: A Tactical Games Approach*. Champaign, Illinouis: Human Kinetics ublishers, Inc.
- Pangrazy, R.P., dan Dauer, V.P. (1992), *Dynamic Physical Education for Elementary School Children*, 10th Ed., Macmillan Publishing Company, New York.
- Tindall, Ron. (1983). *Soccer Fundamentals*, A.H.Raw, Rud Pty Ltd. Australia and New Zealand.
- Woods, Paula. (1987). *Improve Your Soccer Skill*. Usbarne Publishing Ltd. London.

PHYSICAL CONDITION OF WEST JAVA PELATDA'S MALE HOCKEY ATHLETE OF PON XVI 2004

By INDRA M. THOHIR CARSIWAN

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ABSTRACT

Good achievement should be supported by several factors, and one of them is physical factor. Every single athlete must possess this physical factor. For this reason, West Java's hockey team has conducted its training program on physical improvement.

The aim of this research are (1) to find out how good the physical condition of West Java's hockey athlete of PON XVI 2004, and (2) to know which physical conditions that need to be improved.

Physical condition components that had been examined are power component, which consists of the powers of arm and shoulder, back muscle, and leg muscle; muscle endurance component, which consists of arm and shoulder muscle, leg muscle, and abdominal muscle endurance; speed, arm muscle power, agility, flexibility, and VO2 Max components.

According to data analysis, it can be concluded as follow; power ability which consists of (1) arm muscle power, the result is good; (2) shoulder muscle power, the result is adequate; (3) back muscle power, the result is less good; (4) leg muscle power, the result is good. The muscle endurance component which consists of (1) arm and shoulder muscle endurance, the result is very good; (2) leg muscle endurance, the result is very satisfying; (3) abdominal muscle endurance, the result is very satisfying. For speed component, the result is good; muscle power component, the result is less good; agility component, the result is good; flexibility component, the result is very good; and VO2 component, the result is good. Based on the twelve physical condition components of West Java Pelatda's male hockey athletes of PON XVI 2004, it can be concluded that they have high physical condition level.



Athlete physical condition holds a vital role in technique, tactics, and strategy training program. For this reason, athlete physical condition training program must be matched well and systematically based on the needs and characteristics of the sport affiliate, so that it will be possible for athlete to achieve maximum achievement.

The sport affiliate of hockey demands its athletes to have good physical condition. As a general, if they have good physical condition, they will get some benefits, such as (1) improving circulation and heart work system ability, (2) economic and better movement during technique, tactics, and strategy training, and (3) training duration can be carried out longer and faster recovery after training period.

Physical condition components that had been examined are power component, which consists of the powers of arm and shoulder, back muscle, and leg muscle; muscle endurance component, which consists of arm and shoulder muscle, leg muscle, and abdominal muscle endurance; speed, arm muscle power, agility, flexibility, and VO2 Max components

The problems on this research are (1) whether physical condition training program of pelatda hockey athlete of PON XVI 2004 has been conducted well and successfully, (2) which physical component that has achieved good physical condition and which one that needs to be improved.



The aims of this research area to find out (1) physical condition of pelatda hockey athlete of PON XVI 2004, (2) which physical component that has achieved good physical condition, and (3) which physical condition component that needs to be improved.



The method used in this research is experiment method. The research subject (respondent) is male athlete of PON XVI 2004. Sample amount is 12 athletes in age between 20-23 years old. This research was conducted on January until February 2004. Training frequency is 3 times in a week during 2 months. The location of research is Hockey Field Complex in Cikutra Street, Bandung.

Physical condition ability is divided into five categories; those are (1) less, (2) adequate, (3) good, (4) very good, and (5) extraordinary.



Table 1.1 Result data test

No.	Name	1	2	3	4	5	6	7	8	9	10	11	12
1.	Saeful	40	31	70	116	7.72	3.4	17.15	18	20	30	50	9.1

2.	Sylvan	35	28	20	274	6.77	4.0	16.21	11	40	200	140	11.4
3.	Usep	49	26	83	222	6.84	3.4	16.92	16	20	100	70	11.10
4.	Pipik	35	45	66	216	7.4	4.0	16.11	20	46	128	90	12.8
5.	Fikri	46	30	62	273	7.16	3.20	15.82	21	30	127	100	12.3
6.	Lukman	45	40	75	230	7.39	3.20	6.30	19	50	60	64	10.8
7.	Erick	30	22	60	175	6.9	3.20	15.25	8	35	240	70	10.7
8.	Agus	38	36	77	160	7.68	4.10	15,67	23	30	30	70	12.9
9.	Pepep	26	29	66	100	7.8	3.5	17.08	19	31	157	66	9.11
10.	Toni	45	48	75	140	7.0	3.3	14.53	19	25	50	70	11.3
11.	Dendi	44	31	70	235	6.86	4.0	15.38	24	30	200	120	10.11
12.	Yanuar	46	26	64	290	7.02	3.40	15.43	20	30	80	50	12.12

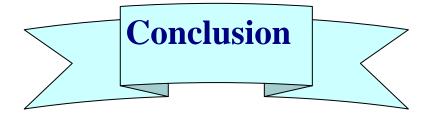
Explanation

- 1. Arm muscle power/force
- 2. Shoulder muscle power
- 3. Back muscle power
- 4. Leg muscle Power
- 5. Speed
- 6. Arm muscle power
- 7. Agility
- 8. Flexibility
- 9. Arm and shoulder muscle endurance
- 10.Leg muscle endurance
- 11. Abdominal muscle endurance
- 12.VO2 Max

Table 1.2 Result Data: Mean Result, Level and Conversion Value

NO	KOMPONENT	MEASUREMENT	MEAN	LEVEL	CONVE
•		TECNIQUE	RESULT		RSION VALUE
1.	Power:				
	a. Arm muscle	Grip	39.92	Good	6
	b. Shoulder	Hand dynamometer	32.67	Adequate	4
	muscle	Back dynamometer	69.83	Less good	2
	c. Back muscle	Leg dynamometer	206.33	Good	6
	d. Leg muscle				
2.	Speed	Run 50 meter	6.57	Good	6
3.	Arm muscle Power	Medicine ball put	3.56	Less good	2
4.	Agility	Shuttle run	16.02	Good	6
5.	Flexibility	Flexometer	18.17	Very good	8

6.	Endurance: a. Arm and shoulder b. Leg muscle c. Abdominal muscle	Push Ups Squat jumps Back lifts	32.36 116.83 80	Very Good Very satisfying Very satisfying	8 10 10
7.	VO2 max		11.15	Good	6
	Conclusion			Good	74



According to data analysis, it can be concluded as follow; power ability which consists of (1) arm muscle power, the result is good; (2) shoulder muscle power, the result is adequate; (3) back muscle power, the result is less good; (4) leg muscle power, the result is good. The muscle endurance component which consists of (1) arm and shoulder muscle endurance, the result is very good; (2) leg muscle

endurance, the result is very satisfying; (3) abdominal muscle endurance, the result is very satisfying. For speed component, the result is good; muscle power component, the result is less good; agility component, the result is good; flexibility component, the result is very good; and VO2 component, the result is good. Based on the twelve physical condition components of West Java Pelatda's male hockey athletes of PON XVI 2004, it can be concluded that they have high physical condition level.

Based on the twelve physical condition components of male hockey athlete of PON XVI 2004, it can be concluded that physical condition that needs to be improved further are back muscle power, and arm muscle power components. Generally, physical condition of West Java's male hockey athlete of PON XVI 2004 is on good level.

TACTICAL APPROACH IN PENCAK SILAT LEARNING OF PJKR FPOK INDONESIA UVERSITY OF EDUCATION STUDENT

By SUCIPTO M. RUHIAT

The School of Physical Education and health Education, Indonesia University of Education

ABSTRACT

Pencak silat is a compulsory subject that must be taken by student in every study program of FPOK UPI. The purpose of this subject is to provide students with a foothold in supporting their profession as physical education teacher, coach/trainer, sport cultivator, and sport expert, later in the future after they had graduated from FPOK UPI. The characteristic of the subject is students are demanded not only to possess comprehension, skill, and organization of pencak silat, but also able to behave as a pencak silat agent who has high and good behavior.

The aims of this research are (1) to develop student's comprehension ability on pencak silat learning's material in FPOK UPI, (2) to improve student's comprehension, skill and experience, and understanding on pencak silat learning material, and (3) to increase student's pencak silat learning score.

Data collection was taken from evaluation which consists of daily examination, mid semester test, tasks and final test, both practical and theory. According to tests and data analysis, it can be concluded as follow: (1) students who get pencak silat's average score between A and B are 83 students or 75.67%, (2) who get average score above 2.00 or get C are 27 students or 34.32%, and (3) no one who get D and E or 0%. Generally, students of PJKR program of 2001/2002 can pass their pencak silat subject with percentage of 100%.



The problem faced in pencak silat learning is the ineffective of pencak silat's learning model on the learning result of FPOK UPI's student. As a result, the purpose of pencak silat can not be achieved as maximum as possible. This has a direct impact on pencak silat subject and also will influence the academic achievement index (IPK).



The research method used in this research is experiment method. The research subject (respondent) is student of PJKR program of FPOK UPI, generation of 2001/2002 or semester IV. The sample amount is 111 students which consist of 91 male and 20 female. This sample was divided into two groups; group A consists of 56 students and group B 55 students. The research was conducted twice in a week, on Tuesday and Thursday or 32 meetings.

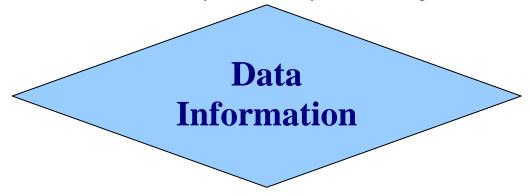


Table 1.1

Distribution of test score, student's number, and pencak silat ability percentage of PJKR program's student of generation 2001/2002

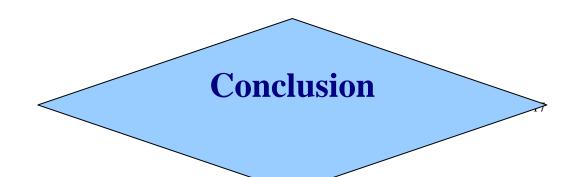
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	AMOUNT		111 STUDENTS	100%

Table 1.2
Distribution of test score, student's number, and pencak silat ability percentage of PJKR program's student of generation 2000/2001

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Comparison of quality and score changing direction on pencak silat subject between PJKR program students of 2001/2002 and students of 2000/2001

Score	Student'	Student's amount		entage	Changing	Changing
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D	-	-	0%	0%	0%	Constant
Е	-	-	0%	0%	0%	Constant
	111	96	100%	100%		



According to data analysis, it can be concluded that pencak silat learning ability for PJKR program of 2001/2002 points out that 74 students or 75.67% have pencak silat's average score between A and B, which is higher than average score between A and B for PJKR program's student of 2000/2001. For average score above 2.0 of get score C shows that 27 students or 24.3% lower than average score's percentage of C for PJKR program's student of 2000/2001.

Generally, it can be drawn that pass level of PJKR program's student of 2001/2002 on pencak silat subject points out a meaningful score/grade improvement. This shows that tactical approach potential in pencak silat learning is viewed more efficient rather than previous learning modes.

The comparison of student's presence in pencak silat subject between PJKR program's student of 2001/2002 and student of 2000/2001, shows that student of 2001/2002 is better by percentage of 87%:84%.

PHYSICAL CONDITION OF WEST JAVA'S FEMALE HOCKEY ATHLETE OF PON XVI 2004 IN PALEMBANG, SOUTH SUMATRA

By SUCIPTO CARSIWAN

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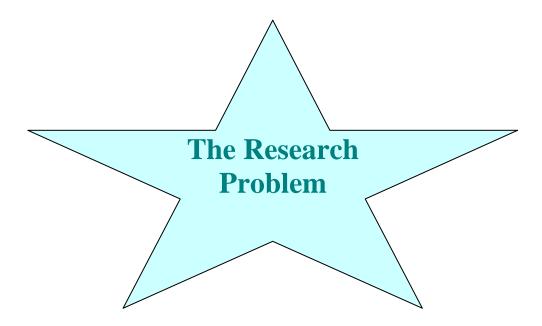
ABSTRACT

Athlete physical condition holds a vital role in technique, tactics, and strategy training program. For this reason, athlete physical condition training program must be matched well and systematically based on the needs and characteristics of the sport affiliate, so that it will be possible for athlete to achieve maximum achievement.

The sport affiliate of hockey demands its athletes to have good physical condition. As a general, if they have good physical condition, they will get some benefits, such as (1) improving circulation and heart work system ability, (2) economic and better movement during technique, tactics, and strategy training, and (3) training duration can be carried out longer and faster recovery after training period.

According to the characteristics and needs of hockey sport, physical component that must be possessed by athletes are (1) power (arm and shoulder muscle power), (2) speed, (3) leg muscle power, (4) agility, (5) flexibility, (6) muscle endurance (arm and shoulder muscle, leg muscle, abdominal muscle endurance, and (7) VO2 Max.

Based on test result and analysis, it can be concluded as follow: (1) the power component which consists of arm muscle, back muscle, and leg muscle powers get adequate point, (2) speed component's point is adequate, (3) arm muscle power component's point is good, (4) agility component's point is good, (5) flexibility component's point is very good, (6) muscle endurance which consists of arm muscle, leg muscle, and abdominal muscle endurance get special conclusion, and (7) VO2 Max's point is adequate. Generally, West Java Pelatda's hockey athletes of PON XVI 2004 have good physical condition.



Good achievement should be supported by several factors, and one of them is physical factor. Every single athlete must possess this physical factor. For this reason, West Java's hockey team has conducted its training program on physical improvement.

The sport affiliate of hockey demands its athletes to have good physical condition. As a general, if they have good physical condition, they will get some benefits, such as (1) improving circulation and heart work system ability, (2) economic and better movement during technique, tactics, and strategy training, and (3) training duration can be carried out longer and faster recovery after training period.

The problems on this research are (1) whether physical condition training program of pelatda hockey athlete of PON XVI 2004 has been conducted well and successfully, (2) which physical component that has achieved good physical condition and which one that needs to be improved.



The aims of this research area to find out (1) physical condition of pelatda hockey athlete of PON XVI 2004, (2) which physical component that has achieved good physical condition, and (3) which physical condition component that needs to be improved.



The method used in this research is experiment method. The research subject (respondent) is female athlete of PON XVI 2004. Sample amount is 12 athletes in age between 20-23 years old. This research was conducted on January until February 2004. Training frequency is 3 times in a week during 2 months. The location of research is Hockey Field Complex in Cikutra Street, Bandung.

Physical condition ability is divided into five categories; those are (1) less, (2) adequate, (3) good, (4) very good, and (5) extraordinary.

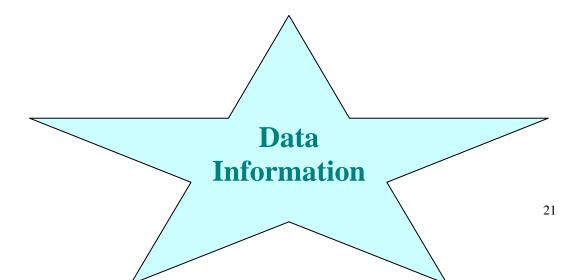


Table 1.1Result Data Test

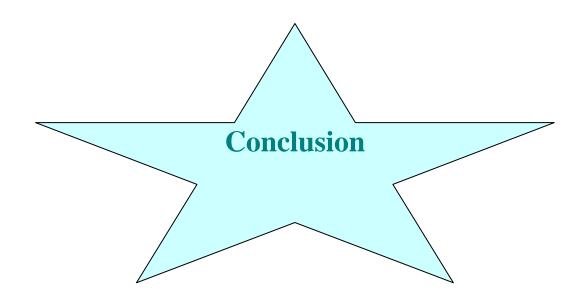
No.	Name	1	2	3	4	5	6	7	8	9	10	11	12
1.	Sharifa	26	17	28	165	8.10	2.70	18.07	10	31	80	68	6.4
2.	Elisda	23	16	20	93	8.34	2.40	17.01	17	35	85	70	9.6
3.	Rita	30	25	42	105	8.53	2.60	17.54	23	40	81	60	8.1
4.	Weni	19	15	13	150	8.56	2.20	18.51	15	20	40	51	5.4
5.	Ruryanti	24	22	40	171	8.75	2.40	17.77	20	45	112	82	10.8
6.	Siti	30	32	20	85	8.28	3.20	17.07	26	40	100	65	8.4
7.	Windi	25	15	20	105	8.79	2.50	16.62	15	34	50	54	9.6
8.	Endah	28	15	25	140	8.20	2.60	16.72	13	20	55	120	7.9
9.	Retno	30	17	20	127	7.94	2.90	17.68	22	45	70	56	9.6
10.	Galuh	32	22	24	192	8.56	2.60	17.07	3	32	110	70	7.6
11.	Anisah	31	22	45	115	8.4	2.30	19.65	18	22	214	70	7.3
12.	Susilowati	30	25	30	173	8.08	2.80	17.58	13	32	105	101	7.1
13.	Teti	29	19	30	140	8.50	2.50	19.27	27	40	140	70	7.2
14.	Yopi	23	18	30	170	7.20	2.30	17.54	20	16	46	30	10.1
15.	Chrisna	30	16	43	170	8.76	2.30	17.44	22	30	157	62	9.3
16.	Lela	22	19	22	165	8.76	2.20	19.02	23	30	70	58	8.8
17.	Andi R.	20	22	32	140	8.5	2.20	18.57	20	30	120	66	8.8

Explanation:

- 1. Arm muscle power/force
- 2. Shoulder muscle power
- 3. Back muscle power
- 4. Leg muscle Power
- 5. Speed
- 6. Arm muscle power
- 7. Agility
- 8. Flexibility
- 9. Arm and shoulder muscle endurance
- 10.Leg muscle endurance
- 11. Abdominal muscle endurance
- 12.VO2 Max

Table 1.2Result Data: Mean Result, Level, and Conversion Value

NO.	COMPONENT	Measurement Tecnique	Mean Result	Level	Conver
					Value
1.	Power:				
	e. Arm muscle	Grip	29,53	Less good	2
	f. Shoulder	Hand	20,35	Adequate	4
	muscle	dynamometer			
	g. Back	Back	28,47	Less good	2
	muscle	dynamometer			
	h. Leg muscle	Leg dynamometer	141,53	Good	6
2.	Speed	Run 50 meter	7,79	Good	6
3.	Arm muscle	Medicine ball put	2,51	Adequate	4
	Power				
4.	Agility	Shuttle run	17,83	Good	6
5.	Flexibility	Flexometer	18,06	Good	6
6.	Endurance:				
	d. Arm and	Push Ups	31,88	Very satisfying	10
	shoulder	_			10
	e. Leg muscle	Squat jumps	96,18	Very satisfying	
	f. Abdominal	Back lifts	59,71	Very satisfying	10
	muscle				
7.	VO2 max		8,35	Adequate	4
	Conclusion			Good	70



Based on test result and analysis, it can be concluded as follow: (1) the power component which consists of arm muscle, back muscle, and leg muscle powers get adequate point, (2) speed component's point is adequate, (3) arm muscle power component's point is good, (4) agility component's point is good, (5) flexibility component's point is very good, (6) muscle endurance which consists of arm muscle, leg muscle, and abdominal muscle endurance get special conclusion, and (7) VO2 Max's point is adequate. Generally, West Java Pelatda's hockey athletes of PON XVI 2004 have good physical condition.

Based on the twelve physical condition components of male hockey athlete of PON XVI 2004, it can be concluded that physical condition that needs to be improved further are back muscle power, and arm muscle power components. Generally, physical condition of West Java's male hockey athlete of PON XVI 2004 is on good level.

PHYSICAL CONDITION OF WEST JAVA PELATDA'S MALE HOCKEY ATHLETE OF PON XVI 2004

July 22 – 24, 2004 Panghegar Hotel, Bandung West Java, Indonesia

By SUCIPTO CARSIWAN

The School of Physical Education and Health Education, Indonesia University of Education

THE 3rd INTERNATIONAL CONFERENCE OF ASIAN SOCIETY FOR PHYSICAL EDUCATION AND SPORT (ASPES)

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Reference

- Dep. P dan K. 1985. *Tuntunan Pengajaran Pencak Silat Untuk Sekolah Lanjutan Tingkat Pertama*. Jakarta.
- Griffin. Linda, L. dkk. 1997. *Teaching Sport Concepts and Skill, A Tactical Games Approach*, Human Kinetics, USA.
- Iskandar. Atok, dkk. 1986. *Pencak Silat. Dirjen Pendidikan Tinggi*. P dan K. Jakarta.
- PB.IPSI. 1999. Penjelasan Peraturan Pertandingan Pencak Silat Antar Bangsa. Hasil Keputusan Munas X 1999. Jakarta.

- PERSILAT. 1996. Bahan Penataran Pencak Silat Untuk Wasit dan Juri Internasional. PB. IPSI. Jakarta.
- PLSO. 1982. Tuntunan Pengajaran Pencak Silat Untuk SD, SLTP, dan SLTA. Depdikbud. Jakarta.
- Saleh. Mochamad. 1986. *Beladiri dan Metodik. Universitas Terbuka*. Jakarta.
- Smit. Dreager. 1974. *Asean Figthing Arts. Kodonaha International LTD*. New York.
- Tamat. Trisnowati. 1982. Pengajaran Pencak Silat. Miswar. Jakarta.

Reference

- Connors, Martin. (1992). *The Olympics Fact Book. A Spectators Guide To The Winter and Summer Games*. Detroit: Visible Ink

 Press
- Harsono. (1988). Coaching dan Aspek-aspek Psikologis Dalam Coaching. Jakarta: CV. Tambak Kusuma.
- Hyllegard, Randy, et.all. (1996). *Interpreting Research In Sport and Exercise Science*. Mosby Year Book Inc. St. Louis, Missouri

- Johnson, Barry L. & Nelson, Jack K. (1979). *Practical Measurements for Evaluating In Physical Education*. Minneapolis, Minnesota: Burgess Publishing Company.
- Lutan, Rusli, dkk. (1991). *Manusia dan Olahraga. Bandung*: ITB dan FPOK. IKIP. Bandung.
- Nurhasan. (2004). *Tes Kemampuan Fisik Dasar Cabang Olahraga KONI Jawa Barat*. Bandung: KONI Jawa Barat.
- Tabrani, Primadi. (1985). *Hockey dan Kreativita Dalam Olahraga*. Bandung. ITB.
- Thomas, Jerry R. & Ne,son, Jack K. (1985). *Introducing to Research in Health Physical Education, Recreation, and Dance*. Champaign, Illinois: Human Kinetics Publishers, Inc.

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