



ISBN 978-602-61215-0-9

The 4th ISMINA

**THE 4th INTERNATIONAL CONFERENCE
ON PHYSICAL EDUCATION, SPORT AND HEALTH (ISMINA)
AND WORKSHOP**

"Enhancing Sport, Physical Activity, and Health Promotion for a Better Quality of Life"

PROCEEDINGS

APRIL 12th, 2017

**Auditorium of Semarang State University
(UNNES), Indonesia**

APRIL 13rd, 2017

**Laboratory of "Prof. Soegijono" Sports Science Faculty,
Semarang State University (UNNES), Indonesia**

**SPORTS SCIENCE FACULTY
UNIVERSITAS NEGERI SEMARANG**

Hub of Sports and Health Science



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FOR A BETTER QUALITY OF LIFE**

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Semarang – Central Java, Indonesia

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UNIVERSITAS NEGERI SEMARANG**

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First published in April 2017

Editor : Rudatin Windraswara, Moch Fahmi Abdulaziz, Billy Castyana, Hasty Widyastari

Layout : Moch Fahmi Abdulaziz

Cover design : Thomas Sugeng Hariyoto

Library cataloguing in Publication Data:

Proceedings The 4th International Conference on Physical Education, Sport and Health (ISMINA) and Workshop: Enhancing Sport, Physical Activity, and Health Promotion for A Better Quality of Life published by Sports Science Faculty, Universitas Negeri Semarang – includes bibliographical references I. Series ISBN 978-602-61215-0-9

Distributed by:

Sports Science Faculty, Universitas Negeri Semarang

F6 Building 2nd Floor, Sekaran Campus Gunungpati Semarang City, Indonesia 50229

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The Rector's Word



It is my pleasure to welcome all the speakers and participants of the 4th International Conference on Physical Education, Sports and Health (ISMINA) at Universitas Negeri Semarang or UNNES. This remarkable conference is a part of the 52nd Anniversary of Universitas Negeri Semarang. The theme of this event is 'Enhancing sports, physical activities and health promotion for a better quality of life'. The theme itself is in line with UNNES' vision to become a conservation-minded university with international reputation.

Conservation at UNNES is not designed within a restricted sense but it widely covers three pillars: environment, characters and culture. The theme of this conference has covered all three pillars. The health promotion issues represent an effort to build a habitable environment. The enhancement of physical activities has covered the movement to promote sportsmanship. Sportsmanship is very important character for athletes and non-athletes around the world. Maintaining the culture of sports represents UNNES' effort to proliferate cultural conservation.

I believe that we meet here to discuss on crucial matters of humans wellbeing. We are living in an era where technology has been developing in an unprecedented pace. Our lifestyles have been affected heavily and now most of us sit in front of our computers in a lengthy period instead of doing meaningful physical exercise. Pollution and food enhancement chemicals are parts of our daily lives. The risk of people getting serious diseases is increasing and we have to do something about this. This conference is one of our efforts to solve world's problem.

Last but not least, I would like to extend my deepest gratitude to the invited speakers and instructors who have come to this conference to share your important ideas to the world. Your contribution is highly appreciated by UNNES and by all sports and health community members who attend this event. Do not forget to enjoy your time while you are staying in Semarang and especially your visit at Universitas Negeri Semarang.

Sincerely yours,

Prof. Dr. Fathur Rokhman, M.Hum.
Rector of Semarang State University (Unnes)

Preface from Dean of Sports Science Faculty



Beginning on almost 10 years ago, Faculty of Sports Science UNNES, conducted regularly international conference to nurture its academic atmosphere. Today, I am more than delighted to write a preface on this proceedings. The 4th International Conference on Physical Education, Sports and Health (ISMINA) also become our contribution to our beloved university anniversary, Universitas Negeri Semarang. The conference aims to serves as a platform which allows scholars, professionals, researchers and sports technocrats to share and discuss the latest knowledge and findings with the purpose of transforming a revitalization and rethinking in the effort to encourage investment in the program of Physical Education, Sports and Health as well.

Hopefully, all the presented issues can be understood and can be implemented operationally in the development of physical education, sports and health through this scientific meeting forum, involving scientists, stakeholders, and observer of sports and health.

I would like to deliver our highest respect and appreciation to Rector of Unnes, Prof Fatkhur Rokhman MHum, all the keynote speakers, Prof. Wanchai Boonrod, PhD (Dean of faculty of Sports Science, Chulalongkorn University Thailand), Ass. Prof. Koh Koon Teck, PhD (Assistant Head of Graduate Program PESS-NIE NTU Singapore), Dr. Jihane Tawilah (WHO Representative to the Republic of Indonesia) all the steering committee and scientific board member. Also allow me to express my gratitude to the participants and audiences from Indonesia and other foreign countries who are enthusiastic in attending this precious conference. I do hope that all audiences will gain important values and collaborate it into our own fields and make crucial changes in the future. Besides that, I also convey my appreciations to all of organizing committee who has given their outstanding commitment for presenting this international seminar and forum.

Sincerely yours,

Prof. Dr. Tandiyo Rahayu, M.Pd.
Dean of Sports Science Faculty, Semarang State University (Unnes)

Preface from Ismina 4 Chairperson



Welcome to the 4th International Conference on Physical Education, Sport, and Health (ISMINA) and Workshop. It is projected to be an international event in physical education, sport, and public health field and aimed to become one of the benchmarks on sport, physical activities, as well as health promotion and education events, especially in Asia or even in international scale. This conference is the 4th series of previous conferences held in 2009, 2011, and 2013 hosted by Universitas Negeri Semarang

This conference is a great opportunity to gather all knowledge and practices on sports, physical activities, as well as health promotion to achieve healthy lives and promote well-being for all people at all ages.

We wish to express our sincere appreciation to all of the honorable Keynote Speakers, Prof. Wanchai Boonrod, PhD (Dean of faculty of Sports Science, Chulalongkorn University Thailand), Ass. Prof. Koh Koon Teck, PhD (Assistant Head of Graduate Program PESS-NIE NTU Singapore), Dr. Jihane Tawilah (WHO Representative to the Republic of Indonesia), Prof. Dr. Tandiyo Rahayu, M.Pd (Dean of Faculty of Sports Science, Universitas Negeri Semarang Indonesia), and all participants for their valuable contributions, and also to the ISMINA 2017 committee for their excellent works in organizing this event.

Thank you for joining us in Semarang on 12th – 13th April 2017. Your presents give contribution to make the ISMINA 2017 an outstanding scientific meeting and an opportunity to prepare experts for present and future. Welcome to ISMINA 2017, welcome to Semarang.

Your faithfully,

Dr. Henny Setyawati, M.Si.
Chair Person of International Conference of ISMINA 2017

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ASSESSMENT OF SERVE AND SMASH OF VOLLEYBALL OF JUNIOR ATHLETES OF YOGYAKARTA SPECIAL REGION

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Abstract

The research intends to 1) describe the implementation of current serve and smash assessment of volleyball in clubs, 2) develop the serve and smash assessment of volleyball encompassing the development plan, procedure of implementation, validity, reliability and effectiveness in clubs, 3) describe the characteristics of serve and smash assessment of volleyball in clubs. The research was development research modifying Borg and Gall research. The development of the serve and smash assessment of volleyball used three step procedures; the development step, the validity step, and the dissemination step. The development step covered the initial study, literature review, indicator and indicator description, FGD of the coaches, FGD of the volleyball experts, and the measurement of the composed prototype serve and smash assessment of volleyball. The competency determination as the junior athletes was based on the minimum criteria that had been determined and agreed by the club coaches with ≥ 76 value. smash assessment in the clubs based on the judgments of the coaches does not use the assessment for performance assessment process yet, 2) the instrument of volleyball serve and smash assessment in the clubs based on volleyball expert validity can be considered as good, the instrument of volleyball serve and smash assessment with content validity Aiken's V serve value is 0.93 categorized as very good, Aiken's V smash is 0.95, both are categorized as very good, the instrument reliability of volleyball serve and smash assessment with 6 raters of Genova coefficient interrater value is 0.84, coefficient of Genova smash is 0.83, and the coefficient of Kappa serve is 0.85, coefficient of Kappa smash is 0.86, where the technique and serve and smash is qualified for Linn reliability that is 0.70, and the effectiveness of volleyball serve and smash assessment based on experts' judgment can be used as the assessment of junior athletes in the training process. 3) The characteristics of volleyball serve and smash assessment in the clubs can be used to determine the profile of junior athletes, the research results show that 30 athletes or 41.6 % are considered as very competent, 27 athletes or 37.5% are considered as competent, 13 athletes or 18.1% are considered as less competent, and 2 athletes or 2.8% are considered as incompetent. For the smash, there are 17 athletes or 23.6% are considered as competent, 39 athletes or 51.2% are considered as competent, 11 athletes or 15.3% are considered as less competent, and 5 athletes or 6.9% are considered as incompetent.

Keywords: Assessment, serve, smash, volleyball

INTRODUCTION

The sport that takes priority and also can be developed in Indonesia according to the achievements in Asia is volleyball (Astama in Cholik Mutohir, 2002: 55). Volleyball is a sport that is very popular. Reeser & Bahr (2003: 1) states that more than 500 million people worldwide play volleyball. The Indonesia Constitution No. 3 in 2005 about National Sport System, (2005: 9), on Chapter 20 paragraph 3 states that sport performance is carried out through the process of coaching and development in a planned manner, in stages, and sustained with the support of sports science and technology. The coaching management is targeted to be developed in the body of PBVSI (Indonesian Volleyball Association) with the explanations at the national, regional, its branches and associations or clubs levels (PBVSI 1b, 1995: 60).

Volleyball includes in the category of game sport and team sport which the techniques are not easy to master, it is because the athletes were separated in a different field in the game. Volleyball as a net game certainly cannot be separated from the concept of attack and defence. The concept of attack and defence in volleyball needs mastery of technique or skill techniques to be applied in game situations or matches. The concept of attack uses the serve technique, smash technique, and defence technique using forearm pass, block technique.

Assessment of volleyball in the volleyball sport port skills tests do not reflect or is not based on performance assessment or performance on the process / observations when athletes perform technique simulation in the training process. Subjective assessment will eliminate the reliability and fairness in the assessment (Zainul, 2005: 5). To avoid this, it is necessary to develop alternative assessment methods one of which is the assessment of performance.

Performance assessment is a performance that is shown as a result of a comprehensive training process. Performance assessment is designed to engage athletes in important tasks that represent all experiences in the pre-match (pre-game). Performance assessment allows trainers to see skills being measured which are oriented on aspects of process performance in performing good and right movement techniques. Based on the above background, it is essential to compose serve assessment and smash assessment of volleyball (ASSOB) based on performance assessment. The formulation of the problem proposed in this study is how the implementation of serve and smash assessment of volleyball (ASSOB) in clubs nowadays, and the validity and reliability of serve and smash assessment techniques on volleyball (ASSOB) in clubs of Yogyakarta Special Region.

Performance sports with long-term development patterns follow the model of the "pyramid" where the model is still very relevant to the condition of Indonesia. Bumpa (1999: 12) says "a potential national sports system, Recreation, Basics of performance athletics, athletics Good performance, high performance athletics". Achievement of athletes that are the results of long-term development can make proud of their nation and country in international level. Volleyball classification by its type of the game is categorized on net game (Hopper, 1998: 15). Yuyun & Totok (2010: 34) basic skills of playing volleyball consist of bouncing the ball, hitting the ball skills, and blocking the ball skills.

The concept of a volleyball game is basically bouncing, passing, hitting and blocking the ball, sometimes known volly-ing the ball rally. Rally point system requires athletes and coaches to focus on attention, to avoid mistakes that will give points to the opponent easily (Yiannis Laios, 2004: 4). In PBVSI (2002: 7) it is stated that the game of volleyball is passing the ball over the net in order to fall touching the opposite field floor and to prevent the same effort from the opponent.

Volleyball sport is oriented on performance that involves motor skills (skills movement) (Kenny & Gregory, 2006: 2). The position of the player's body can be divided into three positions, namely high body position, medium body position, low body position (Viera & Fergusson, 2004: 11). High body position is used when the player serves, passes (setting), blocking, and spike (jumping in the air), with standing stretch both legs at mid distance and divide weight balanced on both feet (Sally, 2004: 84). The low body position (low posture) is used when reaching the ball, when defensive position on individuals such as rolling, stretching his/ her legs and when guarding behind the spiker.

Performance sport skills can be analysed into three stages, namely: the preparation phase, execution phase, and the final stage (follow-through phase) (Kenny & Gregory, 2006: 3). The goal of

each stage can be used as an evaluation of the overall effectiveness of the performance shown. Technical performance that will be assessed is on serve technique and smash technique of volleyball.

METHOD

Model of Development

This research is the development and the modification of Borg and Gall. Assessment development of serve and smash of volleyball used two-stage procedure, namely, the stage of development and validation phase. Assessment phase of development serves and smash of volleyball is to conduct a preliminary study with a survey or observation, library research or literature, and Focus Group Discussion with experts. Based on the results of preliminary studies and analysis, the needs of the coaches in volleyball clubs would serve as an initial prototype draft model. Assessment of serve and smash of volleyball (ASSOB).

The validation phase was by conducting three trials, the initial field trial phase, main field trials and operational field testing. Three trials aimed at obtaining final prototype that is qualified good prototype ASSOB, then ASSOB (Assessment of Serve and Smash of Volleyball) can be used for operational field trials.

Product Trial

Research development of serve and smash assessment of volleyball (ASSOB) was conducted in three field trials, namely; 1) The initial field trials, 2) main field trials, and 3) operational field trials. The trial subject population used in the test instrument was serve and smash assessment of volleyball (ASSOB) is the entire male junior athletes. The trial subject population was athletes who were members of volleyball clubs or associations/ Pengda PBVSI Yogyakarta. The trial sample subjects were consisted of two elements, namely: (1) the athletes, (2) raters of volleyball coaches and sampling subjects of DIY volleyball clubs by random sampling.

Data Analysis Technique

Assessment of Serves and Smash of volleyball (ASSOB) consists of two (2) indicators: 1) serve technique, and 2) smash technique. Indicators on ASSOB has six (6) instrument points, namely: 1) introduction point or opening, 2) warm up point, 3) movement preparation point, 4) execution movement point, 5) final movement point, and 6) closing point. ASSOB as guidelines for the observation of pre-match performance process is as a good instrument, it is necessary to validate the experts or specialists of volleyball.

Saifuddin Azwar (2014: 42) states that the content validity that is the validity estimated through examination of the appropriateness or relevance of the test content through rational analysis by competent panel or through expert judgment. The proof of the validity of the test based on the contents or instrument made by a panel of experts in the areas measured and expert in the fields of measurement (Djemari Mardapi, 2008: 19). Validation of the model contents item instrument based on expert judgment ASSOB experts and specialists of volleyball. The validity of the contents was analyzed by Aiken's V, to obtain the amount of validity. The results of the analysis of Aiken's V are compared with the minimum criteria that allowed ie, 0.80 by the number of 6 (six) raters or appraisers.

Analysis to determine the reliability coefficient ASSOB was by using analysis of inter-rater reliability. The coefficient of reliability assessment instrument of serve and smash in volleyball (ASSOB) was by using SPSS Genova (generalizability of Variance) program and Cohen Kappa Program. The Genova Program and Cohen Kappa Program aim to determine the stability and assessors' understanding. Results of Genova and Cohen Kappa were compared with the minimum criteria that allowed for 0.70 (Grolund and Linn, 1990: 130).

RESULTS AND DISCUSSION

1. RESULT

Analysis Results of the Needs

In analyzing the needs on the field, the researcher conducted interviews to 11 coaches. The coaches were interviewed consisted of four volleyball board (PBVSI) districts and 1 Board PBVSI of city of Yogyakarta. The results of interviews with coaches can be concluded that the coaches never assessed the of the performance process on serve and smash assessment of volleyball from the introductory phase, the warming up, preparation movement, execution movement, the final movement, and the closing in training.

Result of Development through FGD Phase 1

The development results of ASSOB conducted on the FGD 1 activities, it was obtained information about the sport volleyball club which trained training process aims to achieve. Information obtained consisting of (1) the definition and construct sport volleyball at the club, (2) indicators of volleyball at the clubs, (3) description of the indicators in volleyball at the clubs. The first focus group results discussion (FGD 1) as the basis for product design of assessment instrument of serve and smash in volleyball at the clubs. The design products included the preparation of the assessment instrument of serve and smash of volleyball, grilles, task performance athletes, observation guidelines, rubrics, assessment implementation procedures, and reporting). Prototype of ASSOB (assessment of serve and smash in volleyball) at the clubs arranged.

Result of Validity through FGD Phase II

FGD 2 aims to provide feedback, input and validation of the assessment serve and smash of volleyball clubs which includes: (1) Definitions and constructs, (2) Grating, (3) the task performance of the athletes, (4) the guidelines observations, (5) Rubric, and (6) the execution procedures. The results of the Focus Group Discussion two (FGD 2) in the form of assessment instrument product of serve and smash of volleyball at the clubs who are able and ready further trial at this stage of research in the field. Readability of ASSOB (assessment of serve and and smash of volleyball) at the clubs done with the coaches being raters of 6 coaches before initial field trials.

Result of Validity and Reliability

ASSOB content validity of instruments (assessment of serve and smash of volleyball) developed judged by experts / specialists (expert judgment) and analyzed by Aiken's V. Aiken's V analysis results in Table 1.

Table 1. A'iken Test Result on Volleyball Skill Point

Serve		Smash	
Point	Result	Point	Result
1	0.925	7	0.925
2	0.916	8	0.916
3	0.927	9	0.937
4	0.895	10	0.968
5	0.968	11	0.979
6	0.966	12	0.966
Mean	0.932		0.948

Table 1 shows that the results of the analysis of the content validity by using the Aiken's content validation earned average on serve technical skills by 0932, amounting to 0948 smash technique. Based on the test results Aiken's validity, then validity of assessment instrument of serve and smash of volleyball can be said good yet it is more than 0.80.

Reliability in this study using 6 raters, then value of reliability coefficient will be tested with two analyses that are genova test and cohen's kappa test. The results of the analysis of D study for the assessment of the athlete in the sport volleyball demonstrating serve techniques can be presented in Table 2.

Table. 2. Estimate of Generalizability Coefficient and Shift Level of Skill Assessment on Volleyball Serve Technique

Design of D Study	Sample Size			Generalizability	
	P	T	I	Coef.	Phi.
01 – 01	72	6	1	0.82087	0.81611
01 – 02	72	6	2	0.83478	0.82987
01 – 03	72	6	3	0.83952	0.83455
01 – 04	72	6	4	0.84191	0.83692
01 – 05	72	6	5	0.84335	0.83834
01 – 06	72	6	6	0.84431	0.83929
Mean				0.83746	0.83251

Table 2 gives an overview of the generalizability coefficient changes for P (person / athlete), various sample size compositions, T (rater / assessor), and I (items). Component assessment serve sports volleyball at the club's male athlete, if the composition is used all indicators, where D study design mean with P = 72, T = 6, and I = 1, then the coefficient of understanding and agreement reliability the coefficient G of 0837 (0.84). The results of the analysis of D study to assess the skills of athletes in smash of volleyball demonstrating the techniques can be presented in Table 3.

Table 3. Estimate of Generalizability Coefficient and Shift Level of Skill Assessment on Volleyball Smash Technique

Design of D Study	Sample Size			Generalizability	
	P	T	I	Coef.	Phi.
01 – 01	72	6	1	0.81191	0.80453
01 – 02	72	6	2	0.82872	0.82103
01 – 03	72	6	3	0.83448	0.82668
01 – 04	72	6	4	0.83739	0.82954
01 – 05	72	6	5	0.83914	0.83126
01 – 06	72	6	6	0.84032	0.83242
Mean				0.83199	0.82424

Table 3 provides an overview of the generalizability coefficient changes for different size composition of samples P (person / athlete), T (rater / assessor), and I (items). Component assessment of smash in volleyball at the male athlete clubs, if the composition is used all indicators, where D study design with P = 72, T = 6, and I = 1, then the coefficient of understanding and agreement reliability the coefficient G of 0.832 (0.83).

Analysis Result of Inter-rater Coefficient reliability on Volleyball Serve Assessment. Summary of Consistency Counting Result and Agreement of six raters on volleyball serve technique shown in Table 4.

Table 4. Result of Kappa Coefficient among Raters on Serve Technique Skill Assessment of Volleyball in Clubs

Poi nts	Raters															Min
	1. 2	1. 3	1. 4	1. 5	1. 6	2. 3	2. 4	2. 5	2. 6	3. 4	3. 5	3. 6	4. 5	4. 6	5. 6	
1	.8	.9	.7	.8	.8	.8	.7	.8	.8	.8	.8	.7	.9	.8	.9	0.84
2	.9	.8	.8	.7	.7	.8	.8	.7	.8	.9	.9	.8	.9	.9	.9	0.85
3	.8	.8	.7	.7	.8	.8	.7	.7	.8	.8	.9	.8	.8	.8	.8	0.82
4	.8	.9	.8	.8	.9	.8	.8	.8	.8	.8	.8	.8	.9	.9	.9	0.87
5	.9	.8	.7	.8	.8	.8	.8	.8	.8	.7	.8	.7	.8	.9	.9	0.83
6	.8	.9	.7	.8	.8	.8	.8	.7	.8	.8	.8	.8	.8	.9	.8	0.83
Min	.8	.8	.7	.8	.8	.8	.8	.7	.8	.8	.8	.8	.8	.9	.8	0.84
	9	8	9	2	2	6	3	8	3	4	8	2	7	0	9	7
Overall Mean: <i>Kappa Coefficient</i>																
															0.85	

The level of consistency and overall rater agreement in assessing the serve technique at the volleyball clubs can be determined by taking the average of six rater of kappa coefficient of 0.85. The value 0.85 suggests that all six assessors (raters) have the perception and understanding of the construct by 85% votes. The value of coefficient K (Kappa) is greater than the minimum criteria that is used by 0.80, so the instrument is eligible coefficient of reliability.

Coefficient Analysis Results of Inter-rater reliability assessments of Smash in volleyball. Summary of results of the consistency calculation and six rater agreement on volleyball smash technique is as presented in Table 5.

Table 5. Coefficient of K (Kappa) Result among Raters on Volleyball Smash Assessment in Clubs

Point	Rater															Min
	1.2	1.3	1.4	1.5	1.6	2.3	2.4	2.5	2.6	3.4	3.5	3.6	4.5	4.6	5.6	
1	.89	.92	.79	.82	.81	.87	.79	.80	.80	.82	.84	.79	.92	.87	.95	0.84
2	.92	.87	.82	.77	.77	.85	.85	.77	.80	.90	.90	.80	.90	.90	.90	0.85
3	.86	.87	.87	.86	.94	.85	.90	.80	.87	.80	.90	.80	.80	.80	.80	0.87
4	.88	.85	.84	.87	.91	.85	.85	.80	.90	.80	.80	.80	.80	.80	.90	0.87
5	.88	.88	.91	.82	.91	.88	.88	.80	.90	.80	.80	.80	.80	.80	.80	0.86
6	.88	.95	.76	.84	.81	.84	.80	.77	.80	.80	.80	.80	.80	.90	.80	0.83
Min	.89	.89	.83	.83	.86	.84	.84	.82	.86	.86	.87	.84	.86	.89	.88	0.85
Overall Result of Kappa Coefficient																0.86

The level of consistency and overall rater agreement in assessing the smash skill technique in volleyball at the clubs can be determined by taking the average of the six rater kappa coefficient of 0.86. The value of 0.86 suggests that all six assessors (raters) have the perception and understanding of the construct ratings of 86%. The value of K (Kappa) coefficient is greater than the minimum criteria that are used by 0.80, so the instrument is eligible coefficient of reliability.

Genova reliability analysis result of data D Study and Cohen Kappa reliability to determine the level of significance and of understanding / consistency of the use of instruments in serve assessment and smash volleyball of trials in the field using 72 sample athletes can be summarized in Table 6. The G study coefficient and Kappa coefficient of performance components in demonstrating the assessment of serve and smash of volleyball indicates where the overall development of the assessment instrument of serve and smash in volleyball is acceptable.

Table 6. Result Summary of Genova Coefficient and Kappa Coefficient for Assessment Performance of Serve and Smash of Volleyball

No	Components	Facet Test Target	Total Item	Genova Coef	Kappa Coef	(Linn \geq 70)
1	Serve Technique Process	Male	6	0.840	0.850	> requirement
2	Smash Technique Process	Male	6	0.830	0.860	> requirement
3	Serve and Smash Technique	Male	12	0.835	0.855	> requirement

*) qualified according to the criteria of minimum standard 0.70 (Linn, 1995:106)

The assessment instrument of serve and smash of volleyball can be used for the assessment of broader or larger facets, in other words, it has met for facets of measurement associated with the object measuring the performance of athletes in the process of training or practices shown by

Genova coefficient index by 0835. The result of the analysis of rater agreement and understanding between the indicators and instruments in the assessment component point of serve and smash of volleyball of junior athletes was taken coefficient 0855. Coefficient of assessment of serve and smash of volleyball was taken coefficient values obtained of Genova and Kappa is greater than the criteria which had been set at 0.70. Inter-rater reliability obtained above can be said already qualified for high reliability.

Result of Data Interpretation of Serve Assessment Performance of Volleyball

Test result data of athlete performance in demonstrating volleyball serve on six (6) instrument point. The frequency distribution of sports volleyball assessment serve is shown in Table 7.

Table 7. Distribution of Assessment Score of Bolavoli Serve

Criteria for Assessment of Score of Serve Technique	Frequency	Percentage	Meaning/Category
86.0	30	41.60 %	Very Good
76.0 ≥ 85.9	27	37.50 %	Good
66.0 ≥ 75,9	13	18.10 %	Less Good
≤ 65,9	2	2.80 %	Not good
Total	72	100 %	

Table 7 shows that juniors athletes were 72 who took the performance test of serve in volleyball for 30 athletes or amounted to 41.60% categorized as very good, 27 athletes or 37.50% categorized as good, 13 athletes 18.10% are less good, and 2 athletes or 2.80% are in not good category. The frequency distribution of the assessment can be concluded that the juniors volleyball athletes in Yogyakarta Special Region can be said they do not meet very good category of more than 85%, hence it needs for sustainable development in the coaching techniques on serve training in their respective clubs.

Result of Data Interpretation of Smash Assessment Performance of Volleyball

Data of test performance of athletes in conducting the assessment demonstrating smash on volleyball on six (6) instrument points. The frequency distribution of assessment of smash in volleyball is shown in Table 8.

Table 8. Distribution of Assessment Score of Smash on Volleyball

Criteria for Assessment of Score of Smash Technique	Frequency	Percentage	Meaning/Category
86.0	17	23.60 %	Very Good
76.0 ≥ 85.9	39	51.20 %	Good
66.0 ≥ 75,9	11	15.30 %	Less Good
≤ 65,9	5	6.90 %	Not good
Total	72	100 %	

Table 8 shows that juniors athletes were 72 who took the test the performance assessment of smash on volleyball of 17 athletes, amounted to 23.60% are categorized as very good, 39 athletes or amounted to 51.20%, are in good category, 11 athletes or 15.30% are categorized as less good, and 5 athletes or 6.90% are in not good category. The frequency distribution of smash assessment on

volleyball can be concluded that the junior athletes in Yogyakarta Special Region can be said they do not meet the category of very good by 85%, hence the needs for the sustainable development in smash technique training in every club.

2. DISCUSSION

Assessment of serve and smash of volleyball done by coaches based on the interview results has never conducted performance assessment in the training process. Coaches in athlete assessors on technical skills, performed with their own observations in the absence of certain guidelines. Observations made between coaches do not have the same concept, so the need for volleyball assessment is necessary with the same concept.

Assessment of serve and smash of volleyball (ASSOB) in the clubs is a set of assessment tools that aims to obtain information about the competence, and the athlete's performance in the training process. Devices assessment volleyball serve and smash sport developed in the form of guidelines for observation consisting of indicators, description, section, task performance athletes, and implementation procedures. The validity of the assessment instrument of serve and smash of volleyball used content validity. Validation of the contents by experts or expert (expert judgment) volleyball sports in item assessment instrument servicing performance and smash sport volleyball. Results of the assessment by experts or experts analyzed using Aiken's V. Results of the analysis of Aiken's V at 6 grains instrument servicing techniques by 0932, and 6 eggs smash engineering instruments for 0948, both meet the validity criteria.

Assessment of serve and smash of volleyball (ASSOB) in the clubs in determining reliability used Genova and Cohen's Kappa test programs. Genova reliability test results with the coefficient D Study, the coefficient on engineering serves amounted to 0.84, the coefficient on the smash technique amounted to 0.83. The reliability of test results with Cohen's Kappa coefficient on engineering serves amounted to 0.85, the coefficient on the smash technique amounted to 0.86. The coefficient of Genova (D study) and Cohen's Kappa of both serve and smash technique on volleyball has qualified excellent (very good) reliability. This is when seen from the level of inter-rater consistency or regularity in a rating on the performance of athletes in assessing serve and smash sport volleyball.

The procedure of serve and smash of volleyball (ASSOB) in the clubs consists of 1) the criteria of raters or appraisers, 2) assessment of instruments used; a) guidelines observations include indicators and a description of the performance, b) assignment of performance demonstrates two techniques of sports volleyball of the opening, heating, techniques (movement preparation, movement execution, final movement), and the closing at the end of the demonstration, c) the rubric as a scoring tool that there is a set of criteria and their weights judgment and 1-5 scoring scale used to observe the results of the performance of the athletes on observation or observation guidelines, and 3) interpretation of data results of the performance of the athletes on the validity and reliability of the assessment of serve and smash volleyball (ASSOB) at the clubs.

Profile of Serve Assessment of Volleyball

The performance assessment of serve in volleyball can be analyzed by looking at the level of achievement of athletes. Achievements in the assessment of serve of volleyball, demonstrated by athletes to prepare since the opening or introduction, warming up, preparation movement,

execution movement, the final movement, and final movement. Profile of assessment results serve of volleyball in Figure 1.

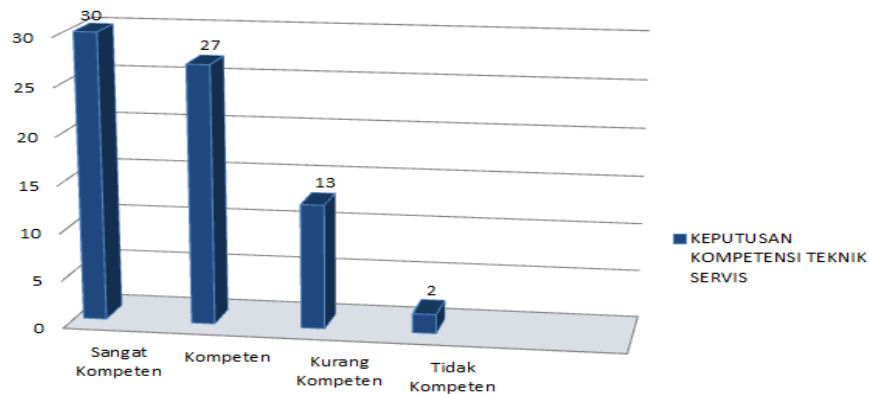


Figure 1. Profile of Serve Assessment of Volleyball

Figure 1 shows that the achievement of the 72 athletes in the assessment serve on volleyball, where 30 athletes earn a score of > 86.0 included in the decision of very competent, 27 athletes obtained score of 76.0 - 85.9 included in the decision of competent, 13 athletes obtained a score of 66.0 - 75.9 included in decisions of less competent, and 2 athletes earn score < 65.9 included in the decision of incompetent. Based on the achievement, it can be analyzed that the athletes do not achieve the maximum, it is necessary to train seriously on every athlete, so as to achieve the feat in the assessment serve sports volleyball at the decision of very competent with percentage 85% - 95% (61-70 athletes), then there are 30-40 athletes who need to improve their performance.

Profile of Smash Assessment of Volleyball

The performance assessment of smash in volleyball can be analyzed by looking at the level of achievement of athletes. In the achievement smash performance of volleyball, shown by the athletes to prepare since the opening or introduction, warming up, preparation movement, execution movement, the final movement, and closing. Data profile is the result of the assessment of smash in volleyball in Figure 2.

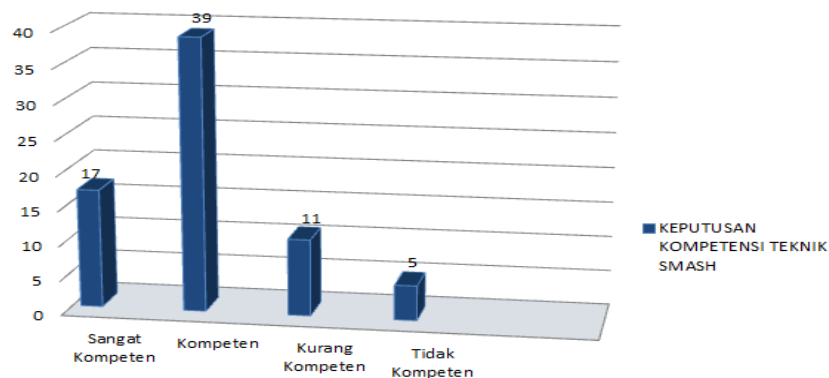


Figure 2. Profile of Smash Assessment of Volleyball Skill

Figure 2 shows that the achievement of the 72 athletes in the assessment smash sport volleyball, where 17 athletes earn a score of > 86.0 included in the decision of very competent, and 39 athletes earn score 76.0 - 85.9 included in the decision of competent, 11 athletes obtained score 66.0 - 75.9 categorized in the decision of less competent, and 5 athletes obtain score <65.9 included in the decision of incompetent. Based on the achievement, it can be analyzed that the athletes do not achieve a maximum in smash technique, it is necessary to train seriously serious on every athlete, so as to achieve the performance in the smash assessment of volleyball in the decision of very competent with percentage 85% - 95% (61-70 athletes), then there are 44-53 athletes who need to improve their performance.

CONCLUSION AND SUGGESTION

1. CONCLUSION

Based on the data result analysis, the assessment of serve and smash of volleyball at clubs may be proposed some conclusions as follows:

1. The implementation of volleyball skill assessment volleyball in clubs is based on opinions of the coaches who have not used the process performance on the training.
2. The results of the content validity of serve technique with Aiken's value are 0.93, the smash technique with Aiken'sV value is 0.95, both techniques have a very good validity.
3. The results of the 6 rater reliability (6 coaches), on the serve technique with Genova interrater coefficient value is 0.84, the serve technique with Kappa K interrater coefficient value is 0.85, and the smash technique with Genova interrater coefficient value is 0.83, with the serve technique with Kappa K interrater coefficient value is 0.86, where both are qualified for Lin reliability 0.70.
4. Characteristics of serve assessment of volleyball (ASSOB) for 30 Yogyakarta Special Region junior athlete profile is found highly competent, 27 athletes are competent, 13 athletes are less competent, and 2 athletes are incompetent. Profile of smash assessment of volleyball of Yogyakarta Special Region junior athletes; 17 athletes are very competent, 39 athletes are competent, 11 athletes are less competent, and 5 athletes are incompetent.

2. SUGGESTION

Based on the results of the result, it can be suggested as follows:

1. The implementation of serve and smash assessment of volleyball at the clubs can be used as process performance on practice or before competing (pre-game).
2. The development of serve and smash assessment of volleyball at the clubs can be developed on the product performance on when competing (Game play).
3. The development of volleyball instruments can be developed in the aspect of knowledge, affective aspect (behaviour), and aspects of physical conditions in every age level of athletes.
4. The development of the serve and smash assessment instrument of volleyball on forearm pass technique, overhead pass and block (bock) will make it easier for coaches to get competent athlete profiles.

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