

Trainer Knowledge Analysis at Volleyball Training of Trainer in Central Java Province

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Abstract—Volleyball trainer qualifications in Indonesia are obtained through training of trainers programs. The program organized by the volleyball federation which must be followed by every trainer and they must pass the test to get the license. In practice, coaching is often not supported and based on theory. Many facts also showed that the training stage does not match with the stage of the child's development. Based on this background and the desire to improve and deepen sports science, this research becomes something interesting. The results showed a significant improvement in sports knowledge from participants and the implementation of the training of trainers program had a role in efforts to increase knowledge of the supporting sciences in volleyball.

Keywords— *Volleyball, trainer, training, knowledge*

I. INTRODUCTION

Volleyball is a popular game in Central Java Province because the game played as a team is fun and easy to play in all conditions [1]. Each team consists of two to six players in a field with size 30 square feet (9 square meters) for each team, and the two teams are separated by a net. The main goal of each team is to hit the ball to the opponent's field so they cannot return the ball [2]. In addition, the team must keep the ball from touching the floor of their own field and use three touches to hit the ball over the net to the opposing team's field [3]. Each team or player in volleyball must regularly pass the ball over the net until the ball touches the floor in the opponent's field and prevents the ball being missed from touching the floor on its own field. To support this, six methods of contact with the ball must be learned and mastered.

Volleyball requires a trainer who is knowledgeable about sports science, such as physiology, knowledge about training programs, physical conditions, and understanding the behavior of Trainers with athletes [4]. They also need to be

responsive to the development of sports science and technology [5], able to evaluate technical skills [6], capable of scouting talent, selecting players with scientific methods [7], and able to form a team.

During the training process, trainers and athletes jointly develop basic technical, tactic, and mental skills to develop to be able to play volleyball effectively. Individual success in playing is achieved through harmonious collaboration together with the efforts of other players [9]. The environment and factors that support the quality of training also need to be created so that someone can learn and practice to master playing skills. One of the factors that influence it is the trainer [10], and the interaction of the components of knowledge and personality of the athlete, facilities and equipment, supporting research, and competition. Knowledge that supports the trainer to know is the theory of anatomy, physiology, biomechanics, measurement tests, health sciences, psychology, motor learning, education, nutrition, history and social science. However, Trainers in their training practice are often not supported or based on theory, while training in accordance with the stages of child development is new to many Trainers [11]. Forms of training that resemble for elite players and complex technical movement skills are often found in training for children under 14 years.

Training of trainer is carried out to improve trainers' knowledge and competencies, contribute to integrated development systems, and activate sports federations in implementing development programs [12]. Training of trainer is also carried out to increase trainer motivation which is manifested in core values [13], in increasing the ability to analyze talent scouting skills and develop a scientifically comprehensive evaluation system [7,8]. General regulations mentioned that only federations and development centers can organize a training program for Trainers. Training of trainer who do not comply

with FIVB regulations is not officially recognized. It is needed to support understanding and knowledge in the development, improvement and deepening of knowledge, and qualifications. In addition, this was also carried out to show that the need for theoretical support in training. Each country has a training of trainers program, although the level of sports development varies, but some of the structure of the training program shows uniformity between countries.

Trainers' qualifications in Indonesia are known as the regional and national training of trainers. This program is organized by PBVSI as a volleyball organization in Indonesia, and every trainer must follow it until they are graduated to get a license. Volleyball training of trainer provides sports theory and practice training material [12]. Implementation has an important role, in addition to being a program to obtain volleyball training qualifications, this program also has a role in efforts to increase knowledge of the sciences that support volleyball. The implementation of volleyball training of trainers in Central Java Province was held in a number of regions because of its vast area. PBVSI Central Java collaborates with PBVSI in the regions and related stakeholders in charge of sports and youth to organize the program in several regions. The significance of volleyball training of trainers is reflected in the ability of participants and increased knowledge after following it. Is there a significant effect on increasing participant's knowledge after attending the training? This study is important in relation to volleyball training of trainers and the impact of developing science from volleyball Trainers in Central Java. The problems studied are: 1) How effective is the program for volleyball trainers at the regional level in increasing their knowledge? 2) How big is the success of the training program at the regional level in increasing the knowledge of volleyball trainers?

II. METHODS

Quantitative research with action research methods and design was conducted to determine the level of knowledge of volleyball coaches in Central Java. Broadly speaking, the treatment was given for four days with a series of pre-test, material delivery, and post-test. The data collection instrument used in this study was a questionnaire in the form of a test used by PBVSI in competency testing and in accordance with PBVSI / FIVB guidelines. The written test contains 50 questions related to the theory of history and the rules of volleyball, philosophy, and sports coaching with a value of 2 for each correct answer. The study was conducted in 7 regions throughout Central Java province with 379 people involved as research subjects.

Activities in the data analysis stage include: (1) checking the data that has been collected, (2) scoring the answers. The data obtained are then analyzed to determine the percentage and describe the level of trainer knowledge of sports according to the categories that have been prepared through pre-test and post-test. The data is then processed using the t-test formula and analyzed descriptively, which is a technique to reveal and describe the description of the respondents based on the results of the written tests that have been carried out.

III. RESULT AND DISCUSSION

The volleyball training of trainer program in Central Java during 2018 was held 7 times with 379 participants. The results of the pre-test and post-test can be presented in the following table:

TABLE 1. RESULTS OF THE TRAINER KNOWLEDGE TEST RESULTS

No.	Place	Pre-test	Post-test	Effectiveness (%)
1.	Purworejo	64.88	75.51	10.63
2.	Batang	64.8	72.46	7.66
3.	Blora	65.89	75.26	9.37
4.	Cilacap	63.7	68.8	5.1
5.	Pemalang	64.19	71.16	6.97
6.	Kebumen	63.20	72.80	9.61
7.	Pekalongan	65.31	72.41	7.1
Average		64.57	72.63	8.06

The results of tests conducted before the training showed an average value of 64.57 for all participants. The highest average initial ability is 65.89 in Blora and the lowest average grade is 63.20 in Kebumen. While the overall average scores of participants after the training showed an average value of 72.63. The highest average knowledge score was 75.51 in Purworejo and the lowest was 68.8 in Cilacap.

The effectiveness of the training program on developing the sport knowledge of volleyball coaches increased by an average of 8.06%. While the success of the educational program for volleyball coaches at the regional level is presented in the following table:

TABLE 2. THE SUCCESS OF THE VOLLEYBALL TRAINING OF TRAINER PROGRAM

No.	Place	Participants	<70	>70	Success (%)
1.	Purworejo	41	8	33	80.4
2.	Batang	50	17	33	66
3.	Blora	54	11	43	80
4.	Cilacap	40	22	18	45
5.	Pemalang	62	18	44	71
6.	Kebumen	78	15	63	81
7.	Pekalongan	54	18	36	66
Total		379	109	270	69.91

Research shows that from the results of the post-test followed by 379 participants, there were 109 people who scored below 70 and 270 people scored above 70. The volleyball training of trainer program showed a success of 69.91%.

In Indonesia, organizing training of trainer can only be carried out under the organization of PBVSI as a volleyball organization. The level of training of trainer, in general, is the training of regional trainers and national trainers. Training of trainers with national qualifications is carried out by National Federation of PBVSI and regional qualifications are held by Provincial Federation of PBVSI. The duration of training for regional level qualifications is 40 hours. The requirements for participating are that participants must be fluent in communication, have good health and physical condition, be able to carry out activities in the field of movement skills guidance, and actively participate in the entire course program both theory and practice. In addition, PBVSI recommendation letters from District Federation or physical education study program diplomas from universities must be held as special requirements.

A series of volleyball training of trainer programs in Central Java shows that there was a significant increase in sports knowledge. The average post-test results, overall, showed an increase, the lowest was at an average of 5.1% and the highest was an increase in knowledge of an average of 10.63%. This shows that the program which aims to increase the knowledge of volleyball coaches has been implemented well. The materials delivered during the training can be received and become new knowledge for the participants. The increase in volleyball coach knowledge is an average of 8.06%, which means that the participants in the training are not limited to the formality of getting a license, but as an effort to improve sports skills and knowledge. Training tutors with national qualifications become a supporting factor for the success of increasing trainers' knowledge. However, it can still be seen that the success of the trainees in breaking the required minimum threshold is still relatively moderate. 30% of trainers participating still scored below 70, of course this is a work that must be completed to continue to improve the knowledge of the trainer. Participant evaluations related to knowledge level were carried out by written tests (Edouard-sandoz, n.d.). As many as 35 out of 50 written test questions must be answered correctly by participants, so the minimum limit is the value of 70 of the written test. The focus of the participants is attention during the training process, besides that the very tight training

schedule is another thing that affects the focus of the participants in absorbing the material.

IV. CONCLUSION

The training program is effective in increasing significant sports knowledge from participants, and the implementation of this program has a role in efforts to increase knowledge of the supporting sciences in volleyball.

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