



The Impact of Toxic Ball Warming on Children's Engagement in Volleyball at SMA Negeri 2 Semarang

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Abstract
<p>Objective. This study seeks to investigate the impact of a toxic ball warm-up on students' enthusiasm for playing volleyball at SMA Negeri 2 Semarang.</p> <p>Materials and Methods. The employed research methodology was quasi-experimental, utilizing a pretest-posttest design. The research subjects consisted of 36 students selected randomly.</p> <p>Results. The findings indicated that the introduction of the poison ball warm-up markedly enhanced students' enthusiasm for playing volleyball. Prior to the deployment, merely 40% of pupils shown great curiosity, however subsequent to the implementation, this percentage rose to 75%. Moreover, students' engagement in volleyball activities rose from 50% to 85%, while fundamental volleyball abilities, including serving, passing, and smashing, improved from 60% to 80%.</p> <p>Conclusion. This study indicates that the poison ball warm-up effectively enhances students' enthusiasm and skills in volleyball. Consequently, it is advisable to implement this strategy consistently in sports instruction to enhance students' motivation and abilities.</p>
Keywords: The Impact of Toxic Ball Warming, Children's Engagement, Volleyball

Introduction

Sports education is a concept resulting from the development of Physical Education and Health which has a more specific goal, namely leading to student sports achievements. (Akmal, 2024) This is in line with the opinion of (Hasanah & Himami, 2021) who argue that, "the sports education model is considered to have more ambitious goals than sports programs in physical education. Sports education seeks to educate students to become competent, intelligent and enthusiastic athletes. (Rahayu, 2013) It is further explained that competent sports means having adequate skills to participate in matches, understanding and being able to implement strategies according to the complexity of the game and as a knowledgeable player. (Kuswoyo, 2018)

An intelligent athlete means one who can easily understand the rules, procedures and traditions in sports and can distinguish between good and bad sports practices, both for children and professional athletes. (Kuswoyo, 2020) An enthusiastic athlete means participating and behaving in a way that maintains, protects and enhances sports culture. (Kuswoyo & Donggoran, 2019) As a member of a sports group, we help develop sports at local, national and international

levels.

(Magfiroh et al., 2020) An important thing that is closely related and that must be done before doing sports activities is to warm up. Warming up before exercising is something or an activity that is generally done by athletes, and also anyone who usually wants to do sports activities to maintain and improve physical fitness, especially students in the world of school education. (Siti Nur Hayati & Putro, 2021) Warm-up movements are usually done in the form of light physical activities such as static and dynamic warm-up stretches that are done before exercising. (Bf et al., 2020) This warm-up activity is highly recommended to reduce the risk of injury and maximize performance during exercise and increase heart rate and body temperature. One of the warm-ups that can be done in sports education to improve children's psychomotor skills is games. (Donnelly et al., 2016) Because the instinct of students is still playing, then by relying on games in warming up students will interact more and also socialize with their peers. (Ginting et al., 2014) stated that a number of characters owned by traditional games that can form positive characters in children include traditional games tend to use facilities available in the environment so that they require high imagination and creativity besides that traditional games also involve relatively many players. (Rahesti et al., 2023) Because, this game has a greater purpose in deepening the ability of interaction between players (interpersonal potential) and traditional games have noble values and moral messages such as values of togetherness, honesty, responsibility, open-mindedness, encouragement to achieve, and obey the rules. Interesting games include the poison ball game, where this game is played by 2 teams with the aim of killing the opponent using a volleyball media that is thrown at the opposing player's body. In addition, this game also utilizes the volleyball court. (Zhang et al., 2020)

(Bean et al., 2022) Talking about warming up is definitely related to athletics. There are various types of sports ranging from big balls, small balls, athletics, quatics and others. One of the sports that has a close relationship with fitness is volleyball (Uho, 2017) displaying volleyball is an official game in the FIVB room played between two teams each consisting of six people on a small court measuring 18 x 9 m and separated by a net. Female players use a net as high as 2.24 m and male players with a net of 2 ,43 m. The ball used has a circumference of 65-67 cm and weighs 260-280g.

The goal of volleyball is to score points by getting the ball into the opponent's court. adding twelve players divided into two teams playing in the game. The game is played in three sets won by the principle of tie-break up to 25 points with a difference of two points in the first

four sets and the fifth set. Tie-break is played up to 15 points with a difference of two points. therefore volleyball requires good cooperation , sportsmanship and a deep understanding of the game. So that students can be enthusiastic and follow the learning well . The purpose of this study was to determine whether warm-up in the form of games can affect students' interest in following volleyball sports learning materials at SMA NEGERI 2 Semarang .

This study offers novelty in several aspects. 1) Innovative Warm-up Method: The application of poison ball warm-up as a warm-up method in volleyball has not been widely studied, especially in the context of secondary school education. This method combines fun game elements with physical exercise, which can increase student interest and participation. 2) Focus on Student Interest: Many sports studies emphasize more on improving technical or physical skills. This study is unique because its main focus is on increasing student interest, which is an important factor in long-term success in sports. 3) Local Context: This study was conducted in SMA Negeri 2 Semarang, providing specific insights into how this method can be applied and accepted in the educational context in Indonesia, which may differ from the context in other countries. Urgency This study has high urgency for several reasons: 1) Increasing Interest in Sports Among Adolescents: Interest in sports among adolescents often declines due to various factors, including the lack of interesting teaching methods. This study can provide practical solutions to increase student interest in sports, especially volleyball. 2) Health and Fitness: With increased interest and participation in sports, students will be more physically active, which contributes to their health and fitness. This is especially important considering the increasing health problems related to sedentary lifestyles among adolescents. 3) Physical Education Curriculum Development: The results of this study can be used as a basis for developing a more interesting and effective physical education curriculum, which can be implemented not only in SMA Negeri 2 Semarang but also in other schools in Indonesia. 3) Motivation and Academic Achievement: High interest in extracurricular activities such as sports can improve students' overall motivation and academic achievement, as they learn to manage their time and energy better.

Materials and Methods

Participants.

In this study, the population used was class XII students of SMA N 2 Semarang. (Sugiyono, 2017) Where in this population has one similar characteristic and in this study the population has had more than the minimum of the specified number. The sampling technique in this study used total sampling where all students of class XII 11 of SMA

NEGERI 2 SEMARANG participated in all of them, so this study is also called population research, namely the researcher took the entire population of class XII students of SMA Negeri 2 Semarang, which amounted to 36 students.

Study organization.

The research was conducted at Sma Negeri 2 Semarang using quantitative descriptive research methods. (Arikunto, 2010) The qualitative descriptive method is a research method that utilizes qualitative data and is described in a descriptive manner. Qualitative descriptive research is often used to analyze events, phenomena, or conditions socially. Qualitative descriptive research is a combination of descriptive and qualitative research. Qualitative descriptive research displays data results as they are without any manipulation or other treatment.

Statistical analysis.

Meanwhile, to obtain research data, several types of instruments are used. The instruments used were interviews and observations. Observation instruments use observation methods on the behavior of each individual. While for interviews by collecting information from respondents through verbal interaction.

Results

Table 1. Research Results Table

Research Aspects	Before the Application of Toxic Ball Heating	After Application of Toxic Ball Heating
High Interest in Volleyball	40%	75%
Active Participation	50%	85%
Basic Skills (Serve, Pass, Smash)	60%	80%

Table Explanation

1)**High Interest in Volleyball** : The percentage of students who showed high interest in the game of volleyball increased from 40% to 75% after the implementation of the poison ball warm-up.

- 2)**Active Participation** : Students' active participation in warm-up sessions and volleyball games increased from 50% to 85%.
- 3)**Basic Skills** : Basic volleyball skills such as serving, passing, and smashing increased from 60% to 80%.

Discussion

Effectiveness of Poison Ball Warm-up: Poison ball warm-up has been proven to be effective in increasing student interest due to the fun and challenging nature of the game. This activity not only prepares students physically for playing volleyball, but also makes them more interested and motivated to participate.

Psychological Impact: Warm-up activities involving game elements can reduce anxiety and boredom, so that students enjoy the learning process more. This supports the theory that fun learning can increase student motivation and interest.

Skill Improvement: With increased interest and engagement, students practiced more often and improved their skills. This suggests that innovative warm-up methods can contribute to improving technical skills in sports.

Recommendation: It is recommended that the poison ball warm-up method be routinely applied in physical education lessons, not only for volleyball but also for other sports. Further research is also needed to explore the long-term impact of this method on students' interests and skills.

Conclusions

The implementation of poison ball warm-up has demonstrated efficacy in enhancing students' engagement in the sport of volleyball. The study's results indicated a substantial enhancement in interest, active engagement, and fundamental volleyball skills following the implementation of this warm-up technique. Heightened Interest: Students' interest in volleyball rose from 40% prior to the implementation to 75% subsequent to the introduction of the poison ball warm-up. Active Participation: The percentage of students actively participating in volleyball activities rose from 50% to 85%. Fundamental abilities: Proficiency in fundamental volleyball abilities, including serving, passing, and spiking, has risen from 60% to 80%.

The poison ball warm-up technique enhances the enjoyment of warm-up sessions

while simultaneously advancing students' technical abilities. Consequently, it is advisable to implement this strategy consistently in sports classes to enhance students' engagement and proficiency in diverse athletic activities.

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Conflict of interest

The researcher has no conflict of interest

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