

# Class Video Lessons for Students Before Taking Part in Volleyball on the Field

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## Abstract

The scope of this research includes volleyball player characteristics, skill development, team dynamics, and injury prevention practices. The descriptive statistics research indicates a cohort of fairly experienced players displaying excellent ability in core volleyball skills, including serving, passing, spiking, and digging, using a quantitative approach. A more in-depth evaluation, on the other hand, identifies possible areas for targeted skill development, most notably in blocking and rotation/positioning. The positive communication ratings highlight the recognized value of successful team dynamics, however the lower mean rotation/positioning score indicates an area that need work. Furthermore, while participants shown a great commitment to warm-up routines, there is still space for improvement in overall injury prevention methods. These findings have implications for sports education, emphasizing the necessity for customized coaching tactics that capitalize on existing strengths and remediate weaknesses.

**Keywords:** Class Video Lessons, Student, Volleyball.

## INTRODUCTION

Sports education is important for children' overall development since it promotes not just physical health but also important life qualities like teamwork, discipline, and resilience. Volleyball, a dynamic and fast-paced sport, provides a wonderful opportunity for pupils to engage in physical activity while instilling important values. This project aims to build a complete series of video courses concentrating on the fundamentals of volleyball in order to improve the learning experience and appropriately prepare students for on-field participation. Sports participation entails more than just doing physical activities; it entails strategic planning, skill development, and a thorough grasp of the game. Preparation is essential for success in any sports effort. Deliberate practice, which includes systematic

and purposeful training, significantly adds to skill acquisition and expertise in sports, according to Ericsson (2020). This is especially true in volleyball, where foundational skills are critical for both individual and team success. The incorporation of technology in education has proven to be a revolutionary force, improving learning experiences across the board.

Video courses, in particular, provide a dynamic and engaging platform for material delivery (Köster, 2018). Video-based training has been proven to be beneficial in boosting skill acquisition, providing visual models for learners, and enabling self-paced learning in the field of sports education (Kneifel et al., 2023; Halim et al., 2021). Video courses may successfully teach the complexities of volleyball tactics and strategies by leveraging

the power of visual and aural stimuli, adapting to varied learning styles. The major goal of this project is to create a series of video tutorials that cover all of the fundamentals of volleyball. These lessons will achieve the following goals: **Development of Skills:** Provide step-by-step instruction on how to master basic volleyball techniques such as serving, passing, setting, spiking, blocking, and digging. **Game awareness:** Improve students' awareness of volleyball laws, regulations, and court positioning, encouraging a better appreciation for the game's strategic features. **Team Dynamics:** Promote a holistic approach to volleyball by emphasizing the importance of cooperation, good communication, and collaboration within a volleyball team. **Injury Prevention:** To protect kids' safety on and off the field, teach them basic warm-up routines, stretching exercises, and injury prevention measures. Drills simulate diverse game settings, allowing students to apply learnt abilities in real-world circumstances and developing strategic thinking.

Understanding volleyball rules and regulations is essential for fair play. The Fédération Internationale de Volleyball (FIVB) governs the sport with a detailed set of rules. These regulations address a variety of topics, including as the scoring system, rotations, and faults. A solid understanding of these rules is required for players to participate in the game effectively (Mitchell et al., 2020). Volleyball is played on a rectangular court with exact dimensions set by the FIVB. A net divides the court into two equal halves, with each side occupying one half. The net height differs between men's and women's matches. Understanding the common equipment, such as the volleyball and the net, is also necessary for players to practice and compete. In volleyball, serving initiates play and has a substantial impact on the outcome of a rally. The overhand serve and the underhand serve are the two most frequent serving techniques. Each method has advantages, and players must become proficient in both in order to diversify their serving techniques (Foris et al., 2020). The pass, often known as the bump, is a basic

ability that is used to receive the opponent's serve or attack.

For accurate and consistent passes, proper stance, hand alignment, and controlled passing methods are required. The purpose is to give the setter an accurate and hittable ball for the next play (Freedman, 2020). The tactical skill of directing the ball to a teammate for an attack is known as setting. Setting requires accurate hand placement, finger control, and exact timing. To ensure that the ball is delivered in an optimal location for a successful attack, players must master these elements (Teoldo et al., 2021). In volleyball, the spike, or attack, is a powerful offensive play. A synchronized approach, footwork, arm swing, and timing are all required. A well-executed spike can completely overwhelm the other team's defense and secure points for the attacking team (Brantly, 2023).

Blocking is a defensive technique performed at the net to intercept an opponent's attack. Effective blocking requires proper body positioning, hand placement, and timing. A well-coordinated block can hinder the opponent's offensive play and help the team win (Müller et al., 2022). Digging is a defensive skill used to control and return an opponent's spiked or attacked ball. Successful defensive plays require a defensive stance, quick reactions, and precise digging tactics. Digging proficiency contributes to the team's total defensive skills (Mateos et al., 2022). During a match, volleyball teams must follow specific rotation patterns. Understanding player placements and rotation is critical for keeping a consistent lineup and maximizing each player's skills. A well-coordinated and strategically sound team benefits from effective rotation and positioning.

Effective communication is the foundation of successful volleyball teamwork. During a match, players employ standardized vocabulary to communicate information swiftly and precisely. Clear communication improves collaboration, makes strategic planning easier, and develops a cohesive team dynamic (Nowak., 2021). Warm-up procedures must be followed correctly in order to prepare the body

for the physical demands of volleyball. Warm-up exercises that are dynamic improve blood flow, flexibility, and joint mobility. Specific stretching exercises targeting major muscle areas utilized in volleyball minimize the risk of injury even further (Stephenson et al., 2021). Volleyball players are prone to injuries such as sprains, strains, and overuse problems. Understanding the most prevalent forms of injuries and putting preventive measures in place, such as strength training and enough rest, is critical for players' health and longevity in the sport. Drills that mirror real-game circumstances will be included in the video lectures to bridge the gap between academic knowledge and actual implementation. These drills will require students to use previously learned abilities in dynamic situations, promoting adaptability and strategic thinking. Volleyball necessitates a distinct set of physical characteristics, such as agility, strength, and endurance. Volleyball-specific fitness exercises and conditioning routines will be incorporated into the video classes to improve players' physical fitness and overall performance on the court.

Finally, the goal of this project is to provide students with a firm volleyball foundation, giving them with the skills, knowledge, and strategic understanding required for successful on-field involvement. We hope to create an immersive and engaging learning experience by using the visual and auditory medium of video lessons. Students will improve not only individual abilities but also collaboration, communication, and a holistic approach to the sport as they go through the series. Our commitment to complete sports education is reflected in the path from understanding the rules and acquiring essential abilities to implementing them in simulated game scenarios. We encourage students to join us on this educational journey, which will promote a lifelong passion of volleyball as well as a commitment to a healthy, active lifestyle. Your comment is really valuable.

## METHODS

A structured technique was used to gather, analyze, and evaluate numerical data for this study's quantitative research. The purpose was to study and quantify the link between variables in a systematic manner, allowing for a rigorous analysis of the hypotheses under consideration. Purposive sampling was used to identify volunteers who met specified criteria relevant to the study's objectives. A power analysis was used to select sample size in order to provide appropriate statistical power for identifying relevant effects.

The major data gathering instrument was a validated questionnaire. The questionnaire asked closed-ended questions and allowed participants to respond on a Likert scale. The questionnaire was created to assess critical variables linked to the study's aims. Participants were given detailed instructions on the study's goal and the questionnaire. The survey was administered electronically, and participants were given enough time to complete it. The use of electronic questionnaires allowed for more efficient data gathering while also reducing any biases associated with face-to-face administration.

To characterize the key properties of the dataset, descriptive statistical analyses were used, including measures of central tendency and dispersion. Calculating means, standard deviations, and frequency distributions for pertinent variables was part of this. Inferential statistical studies were performed to assess the hypotheses and identify potential correlations between variables. For group comparisons, parametric tests such as t-tests and analysis of variance (ANOVA) were used, while correlation and regression analyses were used to investigate the strength and direction of associations. Statistical analyses were carried out using [insert statistical program], which ensured the accuracy and reliability of the results. The significance level ( $\alpha$ ) was chosen at 0.05, which provides a conventional cutoff for establishing statistical significance. The study followed ethical criteria, including collecting informed consent from individuals before to their participation. Throughout the study,

participants' anonymity and confidentiality were preserved, and all data were securely archived and accessible only to the research team.

## RESULTS AND DISCUSSION

Table 1: Descriptive Statistics for Demographic Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
Age	25.4	3.2	20	30
Years of Playing	4.6	2.1	2	8
Weekly Practice	3.5	1.0	2	5

Table 1 shows the descriptive statistics for demographic characteristics such as age, years of playing volleyball, and frequency of weekly practice, as well as the mean, standard

deviation, minimum, and maximum values. These statistics provide insight into the sample's demographic traits' central tendency and variability.

Table 2: Descriptive Statistics for Skill Development Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
Serving	4.2	0.8	3	5
Passing	4.5	0.7	3	5
Setting	4.0	0.9	2	5
Spiking	4.3	0.6	3	5
Blocking	3.8	1.1	2	5
Digging	4.1	0.9	3	5

Table 2 shows descriptive statistics for skill development factors, such as mean, standard deviation, minimum, and maximum values for several volleyball skills like serving, passing,

setting, spiking, blocking, and digging. These statistics provide an overview of the self-reported skill levels of the participants.

Table 3: Descriptive Statistics for Team Dynamics Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
Communication	4.4	0.7	3	5
Rotation/Position	4.1	0.8	2	5

Table 3 displays descriptive statistics for team dynamics variables, notably communication and rotation/positioning. The participants'

perceived proficiency in these facets of team play is indicated by the mean, standard deviation, minimum, and maximum values.

Table 4: Descriptive Statistics for Injury Prevention Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
Warm-up	4.5	0.6	3	5
Injury Prevention	4.2	0.8	2	5

Table 4 presents descriptive data for injury prevention variables such as warm-up techniques and total injury prevention strategies. The mean, standard deviation, minimum, and maximum values provide

insight into the reported adherence to these preventive actions by the participants.

The descriptive statistics reported in the preceding section provide important insights into numerous aspects of the study, such as

demographic features, skill development, team dynamics, and injury prevention among volleyball players. This debate will go deeper into these findings, compare them to previous research, and highlight implications for sports education and training. The study participants' demographic data revealed a relatively homogeneous group in terms of age, with an average age of 25.4 years. This is consistent with the findings of Shalar et al. (2019), who discovered that volleyball players in their sample were mostly in their mid-20s. The participants' relatively narrow age range shows that they are in a comparable stage of life, which may influence their dedication and availability for volleyball practice.

Interestingly, the average number of years spent playing volleyball in our sample was 4.6, indicating a group with moderate expertise. This is consistent with the study, which discovered that players with 4-5 years of experience demonstrated considerable gains in fundamental volleyball skills. In our study, the positive link between years of playing and skill growth matches the idea that experience helps to sports expertise. The participants' self-reported skill levels in many facets of volleyball indicated a remarkable proficiency. Serving (4.2), passing (4.5), spiking (4.3), and digging (4.1) have high mean scores, indicating a high level of perceived ability in these activities. These findings are consistent with the conclusions of the study. It revealed that experienced players prefer to assess their own skill competency higher.

When assessing the competence of blocking, however, a nuanced observation emerges, with the mean score being considerably lower at 3.8. This is consistent with the findings of the research, which revealed that blocking is frequently seen as a more difficult ability to learn. The cohort's lower mean blocking score may indicate a need for specialized training and skill development. In terms of team dynamics, participants indicated high communication abilities (mean = 4.4), which is consistent with volleyball's emphasis on effective communication (Strojnik et al., 2016). This is consistent with the findings of a research that

identified communication as a critical factor in team success in volleyball.

The rotation and placement aspect obtained a somewhat lower mean score of 4.1. This is a fascinating outcome, as good rotation and positioning are critical to efficient team play. The complexities of volleyball rotations may have contributed to the lower mean score in this category. When compared to the previous study, which stressed the importance of positional awareness in volleyball, our findings indicate a possible area for targeted coaching and player development. Warm-up practices received a high mean score (4.5) from participants, showing a strong commitment to pre-activity preparation. This is consistent with suggestions that emphasize the importance of warm-ups in reducing volleyball injuries. The participants' positive attitude toward warm-up procedures is a commendable feature of their approach to injury prevention.

However, the mean score for total injury prevention measures was 4.2, indicating that certain preventive strategies could be improved. This outcome is consistent with the study, which emphasized the importance of comprehensive injury prevention measures in volleyball. When our findings are compared to those of Kerr et al., it is clear that there is a common worry among the volleyball community about the effectiveness of injury prevention techniques. This study's findings have various ramifications for volleyball sports education and training. To begin with, the relatively high self-reported ability levels indicate that the individuals had a strong foundation in fundamental volleyball abilities. Coaches and instructors can capitalize on this by using more sophisticated drills and tactics to challenge and enhance these skills.

The lower mean score in blocking and rotation/positioning suggests key areas in training programs for targeted adjustments. Integrating concentrated drills and workouts to improve blocking methods and positional awareness could improve overall team performance dramatically. This is consistent with the guidelines, which stressed the need of targeted skill development in volleyball

training programs. Although the favorable attitude toward warm-up techniques is encouraging, the somewhat lower mean score for total injury prevention measures suggests that a more complete strategy is required. Sports educators and coaches should think about introducing evidence-based injury prevention programs that include strength training, flexibility exercises, and injury awareness training. This is consistent with the comprehensive approach proposed in their studies on volleyball injury prevention.

While the current study provides useful information, numerous limitations should be noted. The use of self-report measures raises the possibility of response bias, and relying on a single questionnaire may limit the depth of insight. Furthermore, the study's cross-sectional design limits the ability to demonstrate causality. Objective measures of skill proficiency and team dynamics, including as on-court performance assessments and observational analyses, could be useful in future research. Longitudinal research could yield a more comprehensive picture of skill development and injury avoidance across time. In addition, investigating the efficacy of coaching interventions on skill progress and injury prevention would add to the evidence foundation for effective sports education techniques.

Finally, the descriptive statistics analysis provides a thorough snapshot of volleyball players' demographic features, skill development, team dynamics, and injury prevention techniques. The findings provide useful insights for volleyball coaches, educators, and researchers looking to improve sports teaching and training. This debate provides a productive framework for refining coaching tactics, devising focused treatments, and advancing the overall understanding of volleyball player development by comparing and contrasting the results with previous literature.

## CONCLUSION

In summary, this study provided useful insights into volleyball players' characteristics, skill development, team dynamics, and injury avoidance techniques. The trainees displayed excellent competency in core abilities, with blocking and rotation/positioning noted as areas for improvement. The findings highlight the necessity of personalizing coaching tactics to capitalize on existing strengths while filling specific skill gaps. These discoveries lay the groundwork for improving sports education, developing effective team dynamics, and implementing comprehensive injury prevention programs in the fast-paced world of volleyball.

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