

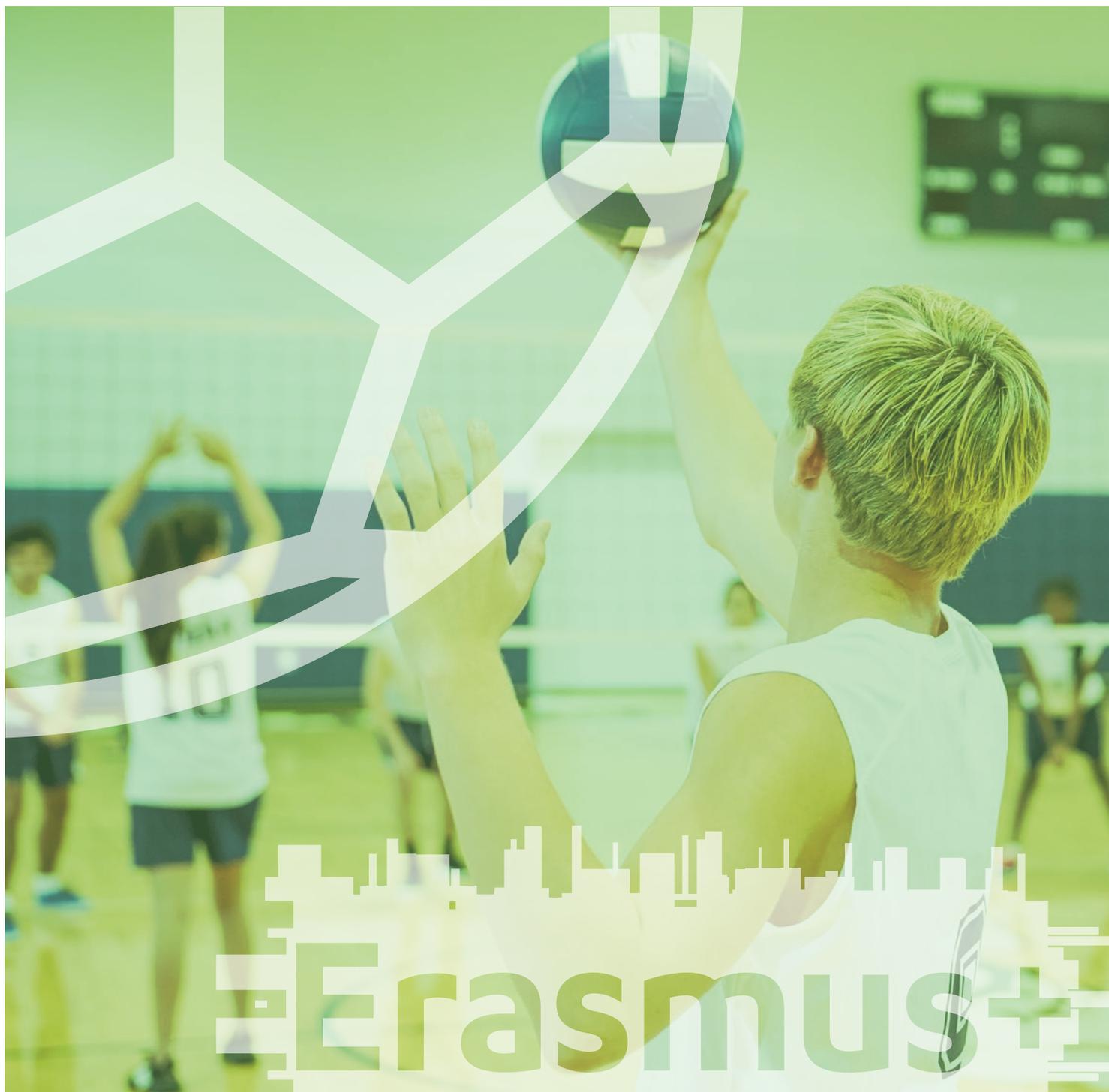


RESULT 04

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EXERCISE BOOK No. 4

VOLLEYBALL BETA COACH – TRAINING COURSE PROGRAM





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TABLE OF CONTENTS

VOLLEYBALL GAME CHARACTERISTICS	4	TEACHING METHODOLOGY IN VOLLEYBALL	20
1. Comprehensive volleyball game characteristics	4	1. Methodology of volleyball postures and the movements	21
1.1. Types of volleyball games	4	2. Methodology of passing	22
1.2. Relevant aspects of movements in volleyball	4	3. Teaching methodology of service	22
GAME RULES AND TERMINOLOGY	5	4. Teaching methodology of attack	23
2. Rules of the game	5	5. Teaching methodology of block	24
2.1. Rules of indoor volleyball	5	VOLLEYBALL DEMANDS AND TEAM MANAGEMENT	24
2.2. SERVICE ZONE	5	1. Physical demands for the players	24
2.3. Rules of beach volleyball	8	1.1. Body size and body composition	25
3. Volleyball terminology	9	1.2. Motor skills	25
3.1. Actions in the game	9	1.3. Speed	26
3.2. Technique terminology	10	1.4. Strength	26
TECHNIQUE AND TACTICS IN VOLLEYBALL	11	1.5. Endurance	27
1. Technique description in volleyball	11	1.6. Flexibility	27
1.1. Postures and movements	11	2. Team management	27
1.2. Setting	11	2.1. Team members (coach, players, staff)	27
1.3. 1.2. Serve	11	2.2. Setting the goals	28
1.4. Attack	11	2.3. Leadership	28
1.5. 1.5. Reception	11	2.4. Socialization and cohesion	29
1.6. Block	12	2.5. Motivation	30
1.7. Defence	12	2.6. Team management during the game	31
2. Tactics in volleyball	12	References	32
2.1. Single player tactical rules	12		
2.2. Team tactics in serve reception	14		
2.3. Team tactics in defense	16		
TEACHING IN SPORT	18		
1. Teaching and learning in the sport	18		
1.1. Learning	18		
1.2. Teaching Methods	19		
1.3. Types of Practice	19		
1.4. . Methods of Practice	20		

TOMASZ SEWERYNIAK

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VOLLEYBALL GAME CHARACTERISTICS

1. COMPREHENSIVE VOLLEYBALL GAME CHARACTERISTICS

Volleyball is a team sports game played on a pitch separated by a net; consisting of actions with the ball (without the possibility of holding it) and without a ball in which each rally has a direct impact on the result (Wołyniec J. and Superlak E. 2001). Traditionally, volleyball is a net sport played by 2 teams of 6 players. The fact that there is a net between the teams, along with the rules, which do not allow players to catch the ball, results in jumps and hits being the physical actions that characterize the sport (de Alcaraz A., Valadés D., and Palao J., 2017).

Volleyball is one of the world's most popular sports and because of its enormous popularity many studies have been conducted in an attempt to understand it. (Marques M., Van den Tillaar R., Gabbett T. V., Reis V. M., González-Badillo J.), 2009).

1.1. Types of volleyball games

Volleyball is a sport that can be modified in several sports modalities. You can play in recreational space (school, on the grass). The mini volleyball is one of the adaptations oriented towards children. Mini-volleyball is the game for children aged 9-10 up to 12-13 years. The rules are established by each National Federation in order to enable matches between players from different clubs or schools. Mini-Volleyball is played by girls and boys in teams of two to four players, on a court measuring 4.5 to 6 metres in width, 9 to 12 metres in length and divided by a net of 1.9 to 2 metres in height.

Another modalities of volleyball is the beach volleyball. Beach volleyball is a relatively new sport with its origins in indoor volleyball. It celebrated

its first World Championship in 1987, and it gained Olympic status in 1996 at Atlanta. The number of players per team, the court surface, the influence of the wind and sun, the dimensions of the court (16x8m), and ball handling rules are the primary differences between indoor volleyball and beach volleyball (Palao J.M, and Ortega E., 2015). The team has three hits for returning the ball (including the block touch).

1.2. Relevant aspects of movements in volleyball

Volleyball is characterized by short, frequent bouts of high-intensity exercise spaced between low-intensity activity periods and recovery time (Polgaze, T., and Dawson, B., 1992). During these high-intensity bouts of activity, and while in the front court, players are involved in defensive and offensive jumping activities.

Volleyball is a sport that requires strength in upper and lower limbs (Forthomme B., Croisier J.L., Ciccarone G., Crielaard J., Cloes M., 2005). The development of muscle strength and specific technical skills are particularly important for young players and especially to female athletes, as priority factors to achieve success (Morrow J.R., 1979).

Explosive power is needed for jumping and landing when attacking and blocking as well as in the trunk, shoulders and upper limbs when swinging the arm to spike in attack. To improve ability in these areas it is necessary to improve physical ability through resistance training.

The jumping performance are important factors for successful volleyball performance (Marques M.C., et al. 2009). Gabbett and Gerogie (2007) concluded that strength training based on explosive movements during the competitive season can improve performance in upper extremity.

In volleyball the players moves in every direction by diving, rolling, running, shuffling, side-stepping, cross-stepping and other movement combinations.

GAME RULES AND TERMINOLOGY

2. RULES OF THE GAME

2.1. Rules of indoor volleyball

Competition taps latent strengths. It exhibits the best of ability, spirit, creativity and aesthetics. The rules are structured to allow all of these qualities.

DIMENSION

The playing court is a rectangle measuring 18 x 9 m, surrounded by a free zone which is a minimum of 3 m wide on all sides. The free playing space is the space above the playing area which is free from any obstructions. The free playing space shall measure a minimum of 7 m in height from the playing surface. For FIVB, World and Official Competitions, the free zone shall measure 5 m from the side lines and 6.5 m from the end lines. The free playing space shall measure a minimum of 12.5 m in height from the playing surface.

LINES OF THE COURT

All lines are 5 cm wide. They must be of a light colour which is different from the colour of the floor and from any other lines.

- **Boundary lines** Two side lines and two end lines mark the playing court. Both side lines and end lines are drawn inside the dimensions of the playing court. 1.1 – **Centre line** The axis of the centre line divides the playing court into two equal courts measuring 9 x 9 m each; however the entire width of the line is considered to belong to both courts equally. This line extends beneath the net from side line to side line.
- **Attack line** On each court, an attack line, whose rear edge is drawn 3 m back from the axis of the centre line, marks the front zone.
- For FIVB, World and Official Competitions, the attack line is extended by the addition of broken lines from the side lines, with five 15 cm short lines 5 cm wide, drawn 20 cm from each other to a total length of 1.75 m. The “coach’s restriction line” (a broken line which extends from the attack line to the end line of the court, parallel to the side line and 1.75 m from it) is composed of 15 cm short lines drawn 20 cm.

2.2. SERVICE ZONE

The service zone is a 9 m wide area behind each end line.

SUBSTITUTION ZONE

The substitution zone is limited by the extension of both attack lines up to the scorer’s table.

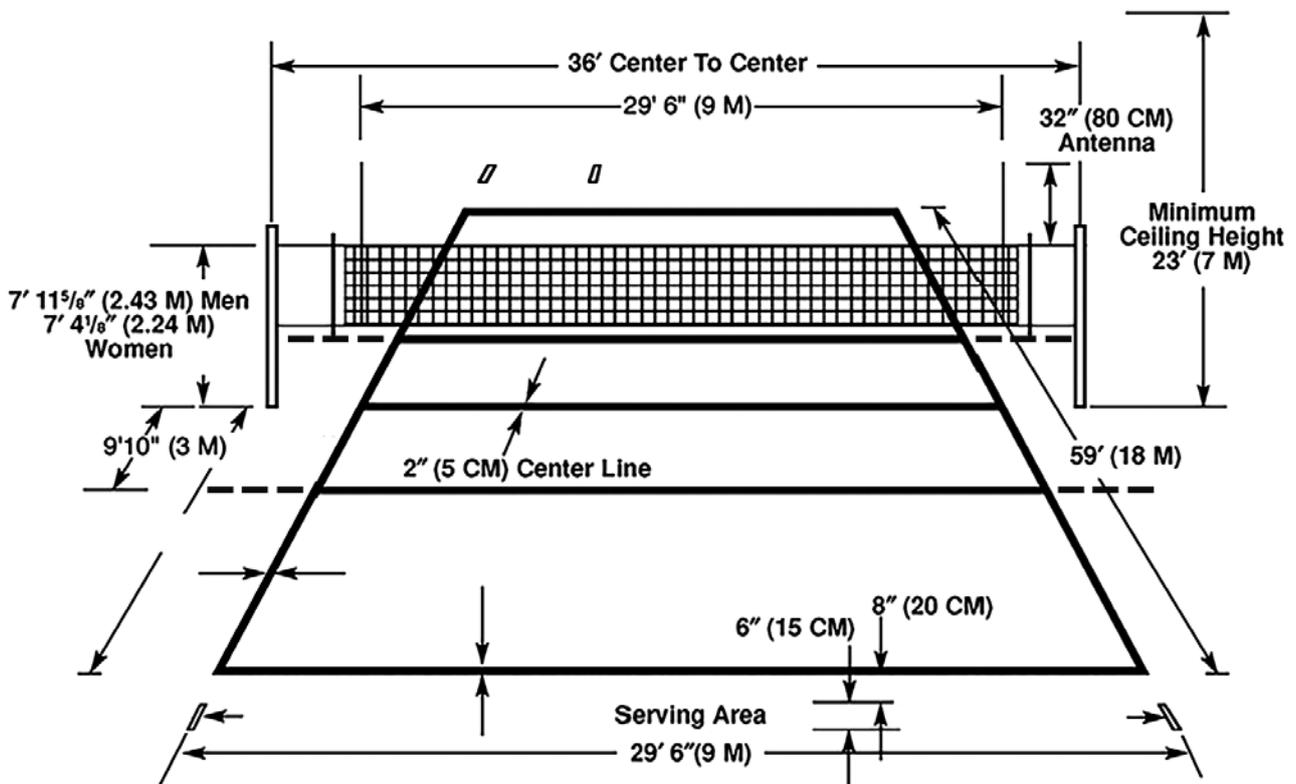


Diagram 1. Volleyball court dimensions (<http://ethelbertmeralles.blogspot.com/2016/03/the-volleyball-games.html>).

HEIGHT OF THE NET

Placed vertically over the centre line there is a net whose top is set at the height of 2.43 m for men and 2.24 m for women.

ANTENNAE

An antenna is a flexible rod, 1.80 m long and 10 mm in diameter, made of fibreglass or similar material. The antennae are considered as part of the net and laterally delimit the crossing space.

FORBIDDEN OBJECTS

It is forbidden to wear objects which may cause injury or give an artificial advantage to the player. Players may wear glasses or lenses at their own risk.

TEAM LEADERS

Both the team captain and the coach are responsible for the conduct and discipline of their team members. The Liberos cannot be either team or game captain.

CAPTAIN

- Prior to the match: the team captain signs the score sheet and represents his/her team in the toss
- During the match: and while on the court, the team captain is the game captain. When the team captain is not on the court, the coach or the team captain must assign another player on the court, but not the Libero, to assume the role of game captain. This game captain maintains his/her responsibilities until he/she is substituted, or the team captain returns to play, or the set ends.
- At the end of the match, the team captain: thanks the referees and signs the score sheet to ratify the result; may, when it has been notified in due time to the 1st referee, confirm and record on the score sheet an official protest regarding the referee's application or interpretation of the rules.

COACH

Throughout the match, the coach conducts the play of his/her team from outside the playing court. He/she selects the starting line-ups, the substitutes, and takes time-outs. In these functions his/her contacting official is the 2nd referee.

- Prior to the match, the coach records or checks the names and numbers of his/her players on the score sheet team roster, and then signs it.
- During the match, the coach: prior to each set, gives the 2nd referee or the scorer the line-up sheet(s) duly filled in and signed; sits on the team bench nearest to the scorer, but may leave it; requests time-outs and substitutions; may, as well as other team members, give instructions to the players on the court. The coach may give these instructions while standing or walking within the free zone in front of his/her team's bench from the extension of the attack line up

POSITION FAULT

The team commits a positional fault, if any player is not in his/her correct position at the moment the ball is hit by the server. When a player is on court through illegal substitution, and play restarts, this is counted as a positional fault with the consequences of an illegal substitution.

If the server commits a serving fault at the moment of the service hit, the server's fault is counted before a positional fault.

If the service becomes faulty after the service hit, it is the positional fault that will be counted.

A positional fault leads to the following consequences: the team is sanctioned with a point and service to the opponent; players' positions must be rectified.

FAULTS IN PLAYING THE BALL

Four hits: a team hits the ball four times before returning it.

Assisted hit: a player takes support from a team-mate or any structure/object in order to hit the ball within the playing area.

Catch: the ball is caught and/or thrown; it does not rebound from the hit.

Double Contact: a player hits the ball twice in succession or the ball contacts various parts of his/her body in succession

PLAYER AT THE NET

It is permitted to penetrate into the opponent's space under the net, provided that this does not interfere with the opponent's play.

Penetration into the opponent's court, beyond the centre line: to touch the opponent's court with a foot (feet) is permitted, provided that some part of the penetrating foot (feet) remains either in contact with or directly above the centre line; to touch the opponent's court with any part of the body above the feet is permitted provided that it does not interfere with the opponent's play. A player may enter the opponent's court after the ball goes out of play. Players may penetrate into the opponent's free zone provided that they do not interfere with the opponent's play.

SERVICE

Serving faults:

- The following faults lead to a change of service even if the opponent is out of position.
 - The server: violates the service order, does not execute the service properly.
 - Faults after the service hit. After the ball has been correctly hit, the service becomes a fault (unless a player is out of position)

if the ball: touches a player of the serving team or fails to cross the vertical plane of the net completely through the crossing space; goes "out"; passes over a screen.

ATTACK

Attack faults:

- A player hits the ball within the playing space of the opposing team.
- A player hits the ball "out".
- A back-row player completes an attack hit from the front zone, if at the moment of the hit the ball is entirely higher than the top of the net.
- A player completes an attack hit on the opponent's service, when the ball is in the front zone and entirely higher than the top of the net.
- A Libero completes an attack hit if at the moment of the hit the ball is entirely higher than the top of the net.
- A player completes an attack hit from higher than the top of the net when the ball is coming from an overhand finger pass by a Libero in his/ her front zone.

BLOCK

Blocking Faults:

- The blocker touches the ball in the OPPONENT'S space either before or simultaneously with the opponent's attack hit.
- A back-row player or a Libero completes a block or participates in a completed block.
- Blocking the opponent's service.
- The ball is sent "out" off the block.
- Blocking the ball in the opponent's space from outside the antenna.
- A Libero attempts an individual or collective block.

GAME INTERRUPTIONS

Each team may request a maximum of two time-outs and six substitutions per set.

Time-out requests must be made by showing the corresponding hand signal, when the ball is out of play and before the whistle for service. All requested time-outs last for 30 seconds. For FIVB, World and Official Competitions, in sets 1-4, two additional 60-second "Technical Time-Outs" are applied automatically when the leading team reaches the 8th and 16th point.

SUBSTITUTION

A substitution is the act by which a player, other than the Libero or his/her replacement player, after being recorded by the scorer, enters the game to occupy the position of another player, who must leave the court at that moment. When the substitution is enforced through injury to a player in play this may be accompanied by the coach (or game captain) showing the corresponding hand signal.

A player of the starting line-up may leave the game, but only once in a set, and re-enter, but only once in a set, and only to his/her previous position in the line-up. A substitute player may enter the game in place of a player of the starting line-up, but only once per set, and he/she can only be substituted by the same starting player.

SANCTION SCALE

According to the judgment of the 1st referee and depending on the seriousness of the offence, the sanctions to be applied and recorded on the score sheet are: Penalty, Expulsion or Disqualification.

Penalty: The first rude conduct in the match by any team member is penalized with a point and service to the opponent.

Expulsion: A team member who is sanctioned by expulsion shall not play for the rest of the set, must be substituted legally and immediately if on court and must remain seated in the penalty area with no other consequences.

An expelled coach loses his/her right to intervene in the set and must remain seated in the penalty area.

The first offensive conduct by a team member is sanctioned by expulsion with no other consequences. The second rude conduct in the same match by the same team member is sanctioned by expulsion with no other consequences.

Disqualification: A team member who is sanctioned by disqualification must be substituted legally and immediately if on court and must leave the Competition-Control Area for the rest of the match with no other consequences.

The first physical attack or implied or threatened aggression is sanctioned by disqualification with no other consequences.

The second offensive conduct in the same match by the same team member is sanctioned by disqualification with no other consequences.

The third rude conduct in the same match by the same team

Warning: no sanction

- Stage 1: verbal warning
- Stage 2: symbol Yellow card

Penalty: sanction

- Symbol Red card

Expulsion: sanction

-
- Symbol Red + Yellow cards jointly

Disqualification: sanction

- Symbol Red + Yellow card separately

2.3. Rules of beach volleyball

DIMENSIONS

The playing court is a rectangle measuring 16 x 8 m, surrounded by a free zone, which is a minimum of 3 m wide on all sides. The free playing space is the space above the playing area, which is free from all obstructions. The free playing space shall measure a minimum of 7 m in height from the playing surface.

LINES ON THE COURT

All lines are 5 cm wide. The lines must be of a colour which contrasts sharply with the colour of the sand.

Boundary lines: Two side lines and two end lines mark the playing court. There is no centre line. Both side and end lines are placed inside the dimensions of the playing court. Court lines should be ribbons made of a resistant material, and any exposed anchors should be of a soft, flexible material

ZONES AND AREAS

There is only the playing court, service zone and the free zone surrounding the playing court.

The service zone is an 8 m wide area behind the end line, which extends to the edge of the free zone

NET

Placed vertically over the middle of the court there is a net whose top is set at the height of 2.43 m for men and 2.24 m for women.

TEAM

A team is composed exclusively of two players.

Only the two players recorded on the score sheet have the right to participate in the match.

One of the players is the team captain who shall be indicated on the score sheet.

CAPTAIN

PRIOR THE MATCH, the team captain:

- a. Signs the score sheet.
- b. Represents his/her team in the toss.

DURING THE MATCH, only the captain is authorized to speak to the referees while the ball is out of play in the following three cases:

- a. to ask for an explanation on the application or interpretation of the Rules; if the explanation does not satisfy the captain, the captain must immediately inform the 1st referee of his/her wish to Protest;
- b. to ask authorization: to change uniforms or equipment; to verify the number of the serving player; to check the net, the ball, the surface etc.; to realign a court line;
- c. to request time-outs. Note: the players must have authorization from the referees to leave the playing area.

AT THE END OF THE MATCH, Both players thank the referees and the opponents.

The Captain signs the score sheet to ratify the result; If the captain previously requested a Protest Protocol via the 1st referee and this has not been successfully resolved at the time of the occurrence, he/she has the right to confirm it as a formal written protest, recorded on the score sheet at the end of the match.

TO WIN A SET

A set (except the deciding 3rd set) is won by the team which first scores 21 points with a minimum lead of two points. In the case of a 20-20 tie, play is continued until a two-point lead is achieved (22-20; 23-21; etc).

TO WIN A MATCH

The match is won by the team that wins two sets. D9 (9) 6.3.2 In the case of a 1-1 tie, the deciding 3rd set is played to 15 points with a minimum lead of 2 points.

DEFAULT AND INCOMPLETE TEAM

If a team refuses to play after being summoned to do so, it is declared in default and forfeits the match with the result 0-2 for the match and 0-21, 0-21 for each set.

POSITION FAULT

There are NO positional order faults.

SERVE

Serving faults

The following faults lead to a change of service:

- The server: violates the service order; Does not execute the service properly.

Faults after the service hit:

- After the ball has been correctly hit, the service becomes a fault if the ball: touches a player of the serving team or fails to cross the vertical plane of the net completely through the crossing space; goes "out"; passes over a screen.

ATTACK

A player hits the ball within the playing space of the opposing team.

A player hits the ball "out".

A player completes an attack-hit using an open-handed finger action or if using finger tips that are not rigid and together.

A player completes an attack hit on the opponent's service, when the ball is entirely higher than the top of the net.

A player completes an attack-hit using an overhand pass which has a trajectory not perpendicular to the line of the shoulders. The exception is when the player is attempting to set to his or her teammate.

BLOCK

The blocker touches the ball in the OPPONENT'S space either before or simultaneously with the opponent's attack hit.

Blocking the ball in the opponent's space from outside the antenna.

A player blocks the opponent's service.

The ball is sent "out" off the block.

TIME OUT

Each team may request a maximum of one time-out per set.

Time-out requests must be made by showing the corresponding hand signal, when the ball is out of play and before the whistle for service. All requested time-outs last for 30 seconds.

COURT SWITCHES

The teams switch after every 7 points (Set 1 and 2) and 5 points (Set 3) played. During court switches the teams must change immediately without delay. If the court switch is not made at the proper time, it will take place as soon as the error is noticed. The score at the time that the court switch is made remains the same

3. VOLLEYBALL TERMINOLOGY

3.1. Actions in the game

Actions in the game of volleyball, understood after Naglak as conscious, deliberate human behavior in a situation requiring choice (Naglak Z. 1994) are the main activities of the volleyball player. Actions of a teams based on ball track during the rally have the structure shown on Diagram 2

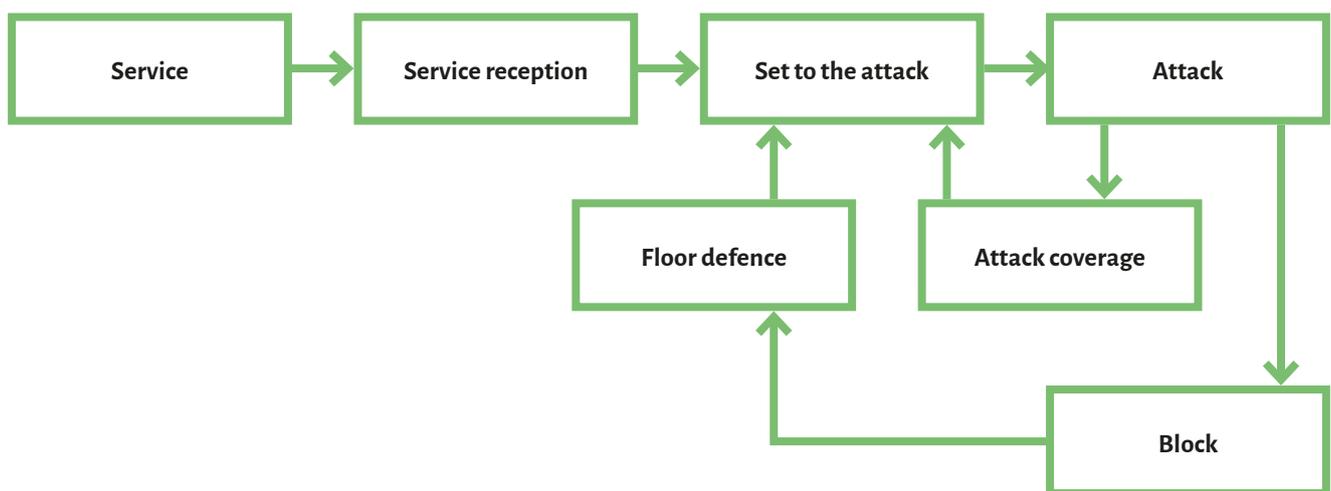


Diagram 2. Logic structure of volleyball actions

3.2. Technique terminology

Actions in the game are implemented through activities, also known as elements of the game technique.

- a.** Postures.
 - High ready posture.
 - Low ready posture.
 - High ready posture in block.
- b.** Volleyball types of movement.
 - Walk.
 - Run.
 - Jump.
 - Double feet stop over
 - Shuffle side step.
 - Cross over step.
 - Lunge.
 - Dives:
 - forward dive,
 - side dive,
 - back dive.

 - „Flying dive“.
- c.** Ball passing.
 - Overhand:
 - double hand overhead pass using the fingers,
 - one hand overhead pass using the fingers,
 - special overhand passes
 - „tomahawk“
 - screen,
 - two hands with open palms,
 - other.
- Underhand:
 - double hand,
 - one hand.

 - With other body parts.
- d.** Service.
 - Underhand:
 - basic underhand,
 - “skyball”.

 - Overhand:
 - tennis style
 - drive,
 - floater;

 - jump tennis style
 - spike serve,
 - floater;

 - roundhouse service
 - drive,
 - floater.
- e.** Attack.
 - Spike.
 - Soft spike.
 - Tip.
- f.** F. Block.
 - One hand stuff block.
 - Two hand stuff block
 - Passive block.

Photo 1. „Flying“ dives performed in defensive actions (Source: fivb.com).



Photo 2. High and low ready posture (Source: fivb.com).



High posture in front row



Low posture in front row

TECHNIQUE AND TACTICS IN VOLLEYBALL

1. TECHNIQUE DESCRIPTION IN VOLLEYBALL

Volleyball strategy implies a special consideration on game skills efficiency aspects. All Romanian authors theoretically agree that the future volleyball players must acquire all specific motions – serve, receive, set, attack, block, dig (Croitoru G., Grigore D., Badea C., Hantau, 2013).

1.1. Postures and movements

There are two types of postures:

- a. Front Row players' posture for quick blocking (high ready posture).
- b. Back Row players' posture for reception of quick attacks from opponents' court (low ready posture).

1.2. Setting

The main objective is to leave the attacker in the best conditions to carry out the attack (Palao & Martínez, 2013). The placement is done by a player specialized, the setter, and is the second contact that the team carries out. The ball should be set 50 to 100 cm away from the net and at an adequate height above the net. Short setting, back setting and advanced techniques in setting should be used so that the opposing team will not be ready for these attacks.

Types of setting	Overhand set
	Jump set
	Underhand set

1.3. 1.2. Serve

It is the technical action through which the ball is put into play from the service zone. A player must hit the ball with his or her hand over the net to land inside the lines of the court. Players may serve underarm or overarm. There are four types of serve: standing serve, spike jump serve, floater jump serve and others.

1.4. Attack

The "spike" is when the ball is hit or smashed over the net. It is the most powerful shot in Volleyball – and the most effective way to win a rally.

It is the most complicated technique at the coordination level and its objective is to direct the ball to the ground of the opposite field. There are two types of action: powerfull and fake. Powerfull one is the spike and fakes are soft spike (also called roll shot) and the tip.

1.5. 1.5. Reception

Reception is the technique that is responsible for neutralizing the opposite service and making it easier to build the attack itself. In serve reception double hand underhand pass and double hand overhead pass are mostly used.

1.6. Block

This is the first line of defence in volleyball. The objective of the “block” is to stop the spiked ball from crossing the net or to channel the spike to defenders. The three frontcourt players share blocking. Teams usually opt for a “read and react” block (whereby they try to react to the ball leaving the setter’s hands) or for a “commit” block (whereby they decide before the point whether to jump on the quick middle balls).

1.7. Defence

The “dig” is a forearm pass that is used to control the ball and pass it to the setter at the net. It is usually the first contact by the team and an effective shot to use in defence, such as when receiving a spike. The “libero” handles much of the team’s serve reception and is pivotal in backcourt defence.

2. TACTICS IN VOLLEYBALL

Tactics is about making choices of activities used in terms of their effectiveness. This choice applies to the actions of a single player, group of players (e.g. in serve reception, block or group attack) or team (team defence tactics, attack tactics after serve reception). Tactical rules can make it easier to make tactical decisions. They are based on the knowledge and experience of trainers and contain tips on what to do in typical situations in the game.

2.1. Single player tactical rules

- a. General tactical rules in actions without the ball
 - Aim for optimal psychophysical (motor) readiness to take action at every stage of the game.
 - Anticipate and perceive the competitor and partner in the ball-competitor-partner order.
 - Be always in posture ready to play:
 - perceive the field of play;
 - feet shoulder-width apart; one foot extended half a foot in front;
 - hands in front of the knees,
 - knees in front of the toes,
 - hands between the chest and hips,
- b. General tactical rules of actions with the ball
 - Keep your body balance during ball contact (balance position when you are in the jump).
 - In order to give the ball the highest speed possible, make sure that you engage the muscles so that they work as soon as possible (speed of contraction and depth of relaxation of the antagonists).
 - If you want to direct the ball to a specific place after the optimal flight path, make sure that the contact area with the ball is as large as possible (restrictions by game rules).
 - Focus only on activities that ensure efficiency.

- Keep your opponent uncertain as to where the ball will be at every contact with the ball.

c. Tactical rules in single players’ actions in volleyball

Tactical rules in service.

- Keep your opponent to the end in the uncertainty as to where you will direct the service.
- Always play effectively, i.e. don’t lose the ball through a bad service
- in particularly important moments of the game (ends of sets, after a series of lost points, after a break in the game, at the beginning of the set).
- Play so that the first touch of the opposing team is executed by their setter.
- Try to force the receiver to move before the ball touch.
- Direct the ball to the player worst receiving service.
- Take a place in the service area before you serve, so that you have the shortest way to the zone where you play in defence.
- Direct the ball between receiving players.
- Direct the ball so that the opponent’s setter has difficulty observing the ball and attackers from his team
- Direct the ball to open areas of the opponent’s court.
- If you want to prevent an opponent from playing a combination attack, play on the first tempo spikers.
- If your opponent has a very well-organized attack after serving, play as hard as you can.
- Change the serve type or the place where from you serve, or ball placement when the opponent receives the ball well.
- If your service brings good results do not change service.
- Direct the ball to player that just entered the court, except the libero player.
- Direct the ball to player who previously made a mistake in service reception.

Tactical rules in serve reception

- Before the opponent’ service receiving player should:
 - know what type of service can be used by serving player,
 - anticipate ball placement of the opponent,
 - know own team line up in serve reception.
- When receiving the service:
 - when the place where you want to direct the ball is to the right of you, stand with your left foot slightly in front,
 - when the place where you want to direct the ball is to the left of you, stand with your right foot slightly in front.
 - keep your body and arms in the path of the ball,
 - take such a place on the pitch to move a little more forward than backward,
 - when touching the ball, make sure that the weight of the body is evenly distributed on both feet,

- try to predict the place where the opponent will direct the ball,
- by taking the right place on the field try to force direction of service.

Tactical rules in setting

- Before the action setter's perception should be focused on:
 - the composition of blockers playing in the attack line,
 - composition of partners playing in the attack line,
 - attack combinations possible to perform in a given rotation.
- When setting the ball to attack:
 - when you are in the first line and you have the ball try to score a point,
 - watch the blockers carefully to the last possible moment
 - always try to play the action so that the attacker is in an easy-to-score situation,
 - when you are in the first line, set the ball to the attack as often as possible in the jump,
 - don't show in any way to whom you will pass the ball,
 - when the opponent has a high point or psychological advantage, after a series of lost actions and in the ends of sets direct the ball to the most reliable attackers,
 - after a series of unsuccessful attacks by one of the partners, set him the ball so that he will be in an easy situation,
 - force blockers to move along the net,
 - if you set the ball out of the side line, play along the longest diagonal
 - put the ball to the zones where weak blockers are operating.

Tactical rules in attack

- Before the action attacker' perception should be focused on:
 - composition of blockers in opponents' team,
 - rotation of opponents' team according to setter position,
 - opponents' defensive system including system of block and floor defence.
- When attacking:
 - keep the blockers as long as possible in uncertainty about the direction of your attack,
 - attack between blockers,
 - attack using the zone of the weakest blocker,
 - when the middle block did not make it to the block at antenna, attack diagonally,
 - if the ball is put too close to the net, wipe it out of the block,
 - at a high block delay the moment of hitting the ball and attack into the back zone of the pitch,
 - if you attack without a block, direct the ball to the center of the opponent's court,
 - if you attack from the center of the net direct the ball towards the side lines,

- when the ball set to the side line is far from the antenna (more than 1,5 m), attack diagonally,
- attack diagonally or into the field bounded by the net, the side line and the diagonal of the pitch, when the set is fast,
- use tip play, when the set is good or the block or the defence is late
- attack the place where the weakest defender plays,
- attack the place where setter or outside hitter plays defence (zone 1 or zone 2)
- prepare yourself for self coverage after performing the attack.

Tactical rules in blocking

- Before the action blocker' perception should be focused on:
 - opponents' team attacker line up,
 - actual rotation of opponents' team,
 - the most often attacking players in given rotation,
 - attack techniques and directions preferred by opponents,
 - attack combinations utilised by opponents in given rotation,
 - where is the hitter which attacks in difficult situations,
 - place of the where is "yours" player,
 - type of block – defence system of your own team
- Rules that help to anticipate the setter:
 - every playmaker has their favorite plays and combinations – try to know them,
 - when setter sets the ball from back zones from low posture, he usually uses a high bow set to the antenna,
 - when a player touches the ball in front of his body, he will usually sets it forward,
 - when the ball after the service is very close to the net, above its top edge, the setter will usually set it in first tempo with one hand,
 - when the player defends the ball bouncing off the net, he usually sets the ball high in the direction in which he is facing,
 - when the player is tilted back and the ball is behind his head, he will probably set to the back,
 - often setters use first tempo attack only when they are in the jump,
 - the playmaker, located near the net in a low stance, will probably put the ball to the attacker in the second tempo
 - the setter running towards the ball along the net is more likely to give it at the first tempo forward rather than to the back,
 - the setter sometimes looks at the player to which he will direct the ball.
- When blocking:
 - keep the opponent in the uncertainty as long as possible about the part of the pitch you will cover with the block,
 - the higher and further from the net the ball is set, the later jump to the block,

- set the plane of the block (by placing your hands and fore-arms) so, that after the bounce the ball falls on the oppo- nent's pitch,
- try to maximally reduce the distance between your hands and the ball to reduce the angle of attack,
- when you can't score a point with block, try to reduce the ball's speed, or cover tactically particular part of the pitch to make it easier for the defenders.

Tactical rules in floor defence

- Before the action defender' perception should be focused on:
 - own team defensive system,
 - own block tactics,
 - opponents' possible attack combinations in given rotation,
 - attackers' favourite plays.
- When defending the attack:
 - try to predict the attacker's actions,
 - choosing the starting position for defense depends on the area of the pitch covered by the block,
 - take the position that allows you to face the ball a see it well,
 - observe the shoulder and arm position of the attacker,
 - when the place where you want to direct the ball is to the right of you, stand with your left foot slightly in front,
 - when the place where you want to direct the ball is to the left of you, stand with your right foot slightly in front,
 - take a position on the pitch so that you move forward or side- ways more often than backwards as often as possible,
 - when you have contact with the ground, strive for each reflec- tion to be made in a balanced posture,
 - when the opponent attacks, position yourself so that you cov- er the ball with your body,
 - the more varied and the more difficult the opponent's attack is, the more often take a low stance in defence
 - the harder the ball you expect, the lower stance you have to adopt,
 - select such a position to defend, so that you do not stand on the field covered by the block (exception-player covering the block),
 - if you are defending a very difficult ball and you cannot aim it accurately to the chosen place, bounce the ball as high as possible, leaving it on your side of the pitch.

2.2.Team tactics in serve reception

The composition of the volleyball team can be determined by the num- ber of setters to non setters (attackers or universal players). There are two numbers here: the first for the number of attackers and the second for the number of setters. So 4: 2 means there are four attackers and two setters in the team. The increase in game level obviously increases

the specialization of players. Therefore, in 3: 3 and 4: 2 systems setters are also involved in the attack (Jetchev), 2011).

Team serve reception is the key to high-level volleyball, because the efectiveness of the first attack depends on its quality. The high ef- fectiveness of the first attack is the goal of every team that wants to win. And in lower level volleyball, the proper effectiveness of the first attack prevents the opponent from gaining a high point advantage. Tactics in team serve reception play will take into account team set up and player tasks. Attack systems can be divided into two solu- tions: with a setter from the back row and a setter from the front row. Both, the high level and the beginners' game will use the set- ting with the setter from the attack line. In this solution, the player setting the ball will always be one of the three players on the attack line (position 2, 3 or 4). This corresponds to the team composition of the 3: 3 or 4: 2

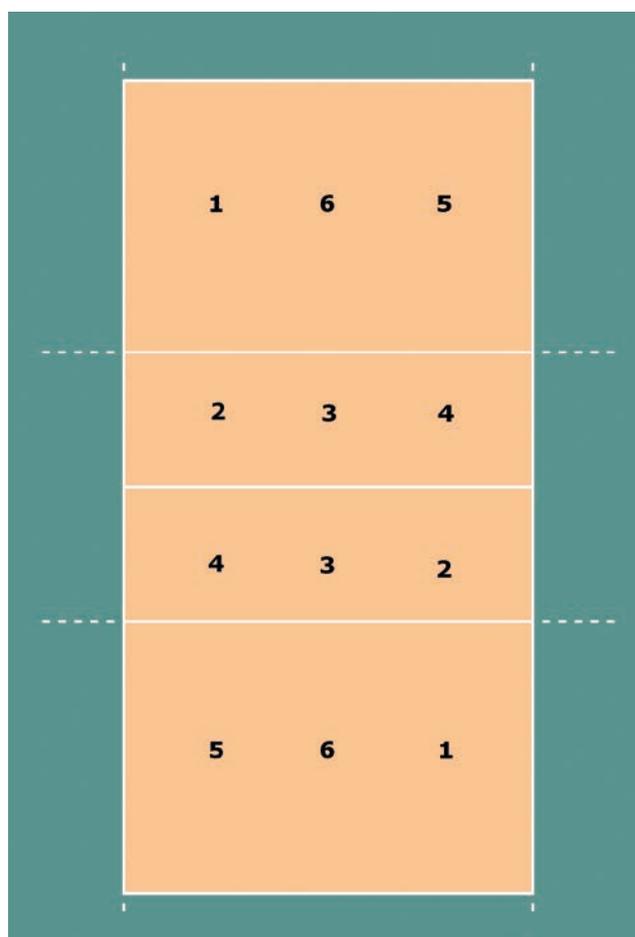


Diagram 3. Zones of volleyball court
(Source: <http://opensourcevolleyball.blogspot.com/2015/01/volleyball-basics-zones-of-court.html>).

Diagrams show the possible players position in team reception in composition 3:3 (Diagram 4, Diagram 5)

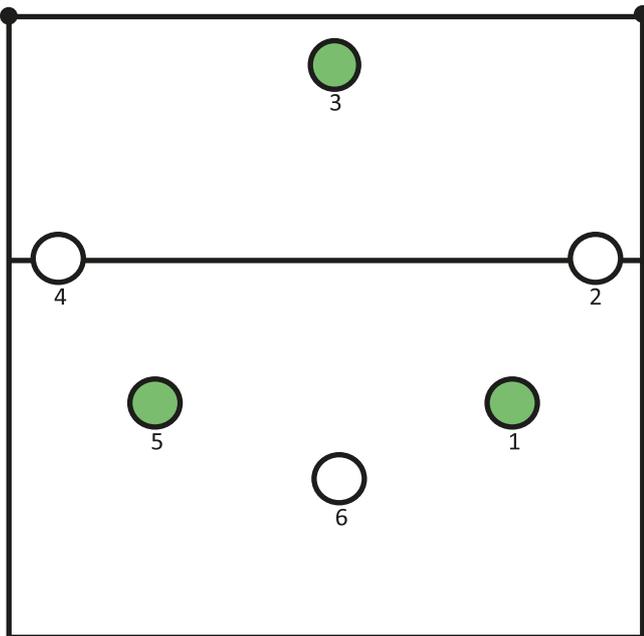


Diagram 4. Positions in team reception with setter in zone 3.

In that situation setter from zone 3 can set to attackers from zones 2, 4 or 6.

- setter,
- non setter.

Situation like this allows the setter in zone 2 set the ball easily to players from zones 3 and 4 and attacker from zone 1.

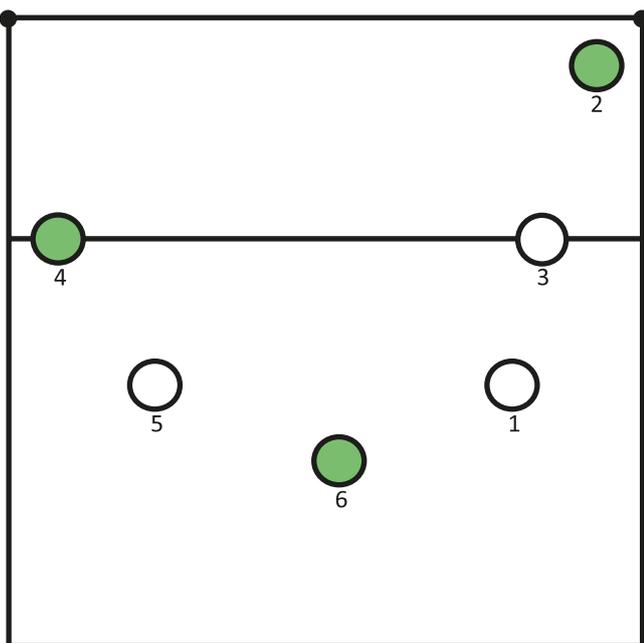


Diagram 5. Positions in team reception with setter in zone 2.

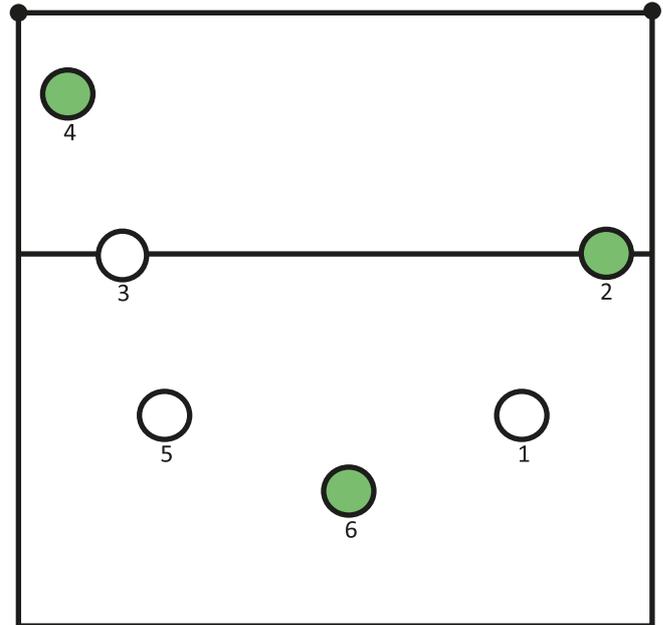


Diagram 6. Positions in team reception with setter in zone 4.

Solutions displayed above allow to use very simple tactics of attack with set in third tempo to players from front row and also sophisticated tactics of attack with set in 1st and 2nd tempo including players from back row.

In addition, when we use the 4:2 system, the presented settings will also apply. This can bring even better results because in each rotation there are two attackers by the net.

The game system with setter from back row is used for 4:2 and 5:1 team composition. The 4:2 lineup in this system allows three players to play an attack in each rotation. A necessary condition here is that setters present good performance in the attack. Main setter takes the position in zone 6.

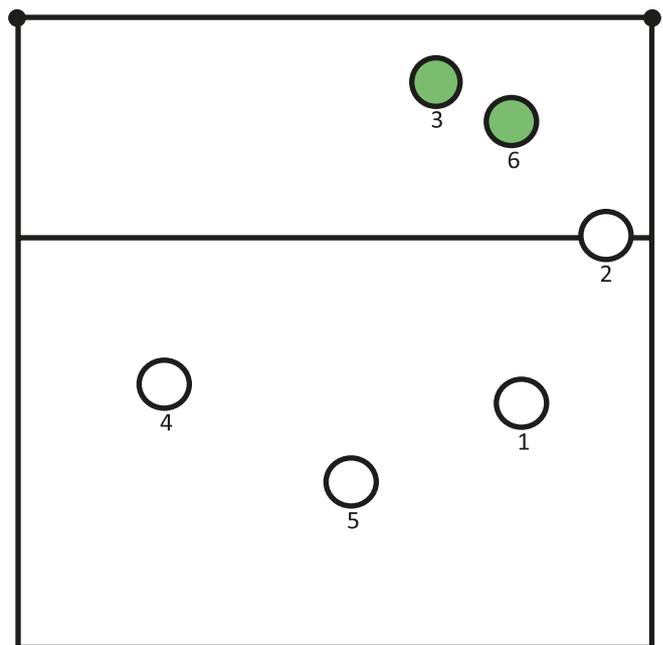
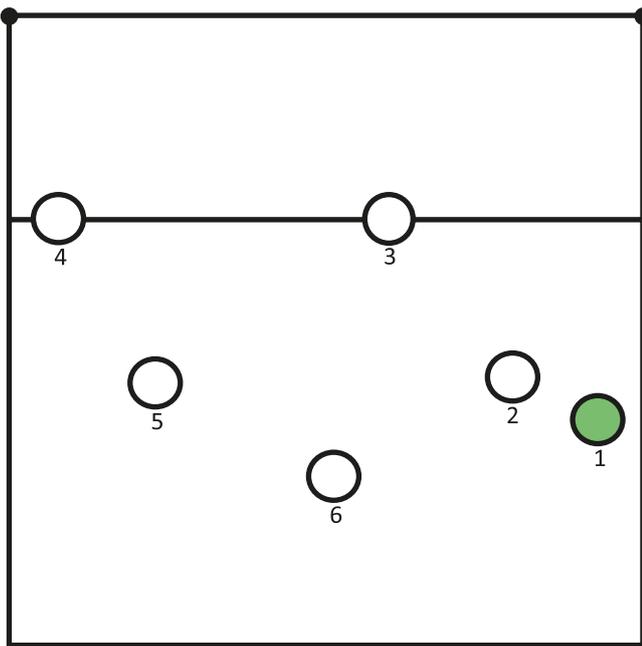
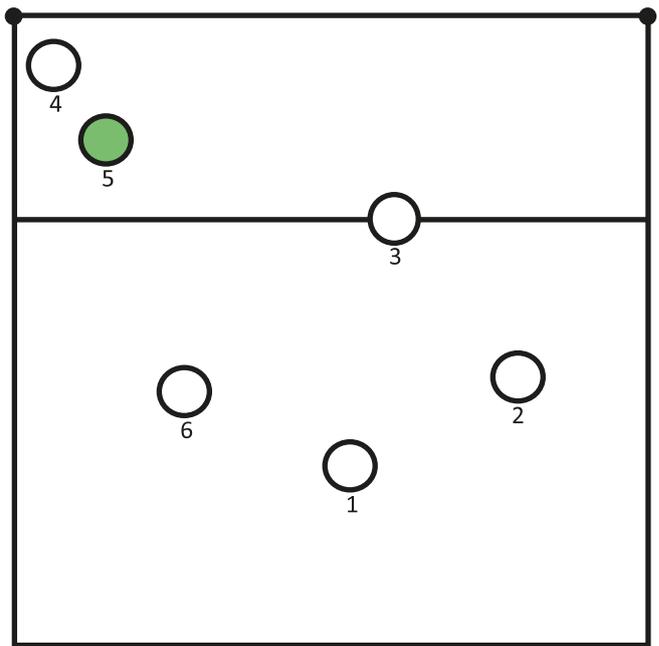


Diagram 7. Team reception lineup for 4:2 system with setter from back row.

Main setter takes the position in zone 1.



Main setter takes the position in zone 5.



Choosing a 5: 1 game system requires the team to combine lineup for serve reception with setter from front row and setter from back row, depending on the position of the playmaker. When the setter occupies positions 2, 3 and 4, the team uses the system with setter from front row, and when the setter occupies positions 1, 5 and 6, the team uses system with setter from back row.

2.3. Team tactics in defense

Team defense has the goal of keeping the ball in play. It consists of two actions: block and floor defense, which form a defense system. The first

issue is to decide on the tasks of the block, because it depends on them to choose the solution in floor defense. The goal of the players in the block can be to score a point, reduce the ball's speed after an attack, and cover a specific area of the pitch against an opponent's attack. These goals will determine the position of players in floor defense. To describe the defense system, therefore, assumptions should be made about the tasks of the block. In the presented description, it is assumed that the team aims at a double block in zones 2 and 4 and a single block in zone 3. This is a very commonly used solution.

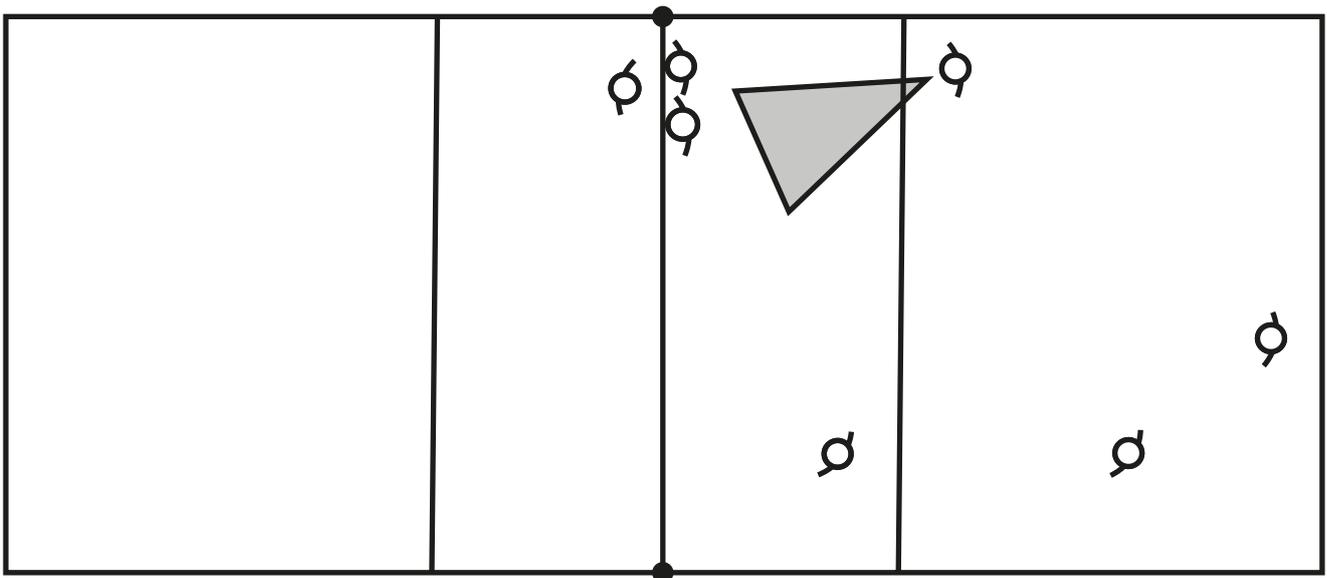


Diagram 8. Team lineup in defence in typical situation with attack from zone 4 and double block covering the line (Source: Blain P., 2011).

The area marked with a triangle indicates the zone of block coverage by the defending player (Blain P., 2011). This is the area in which tips can be directed. An important assumption in this situation is that block covers the area along the side line. When an attack is made from zone 2, the defensive team setup will mirror the setup when attacking from zone 4.

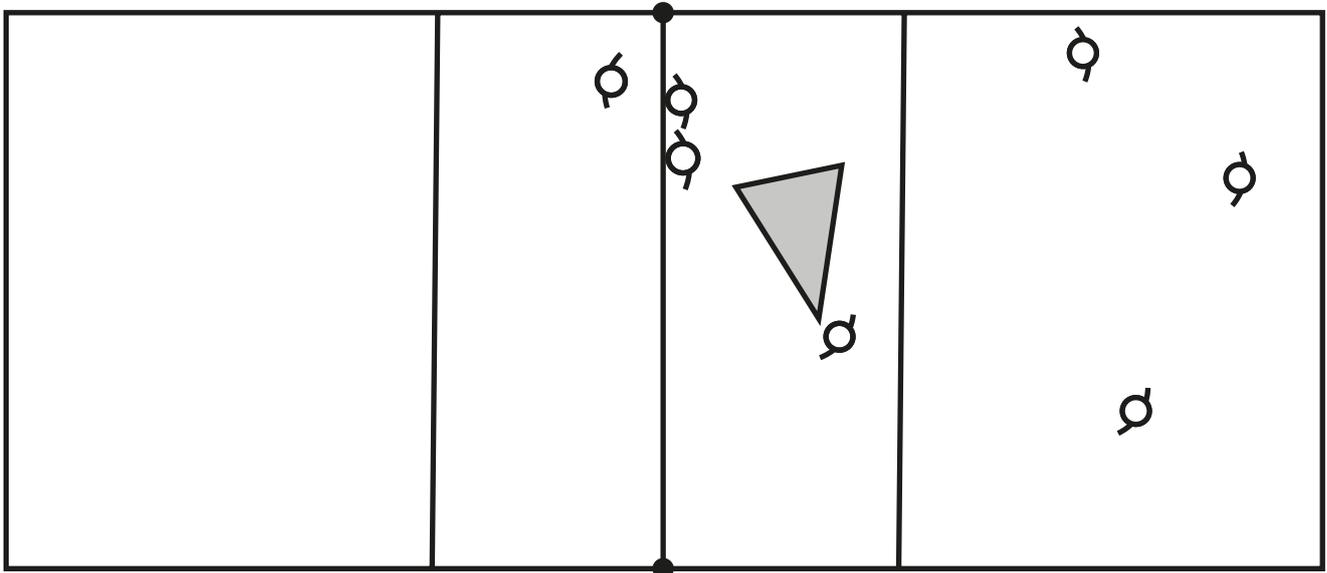


Diagram 9. Team lineup in defence in typical situation with attack from zone 4 and double block covering the cross court (Source: Blain P., 2).

Assumption for the block in this kind of situation is to cover area crosscourt.

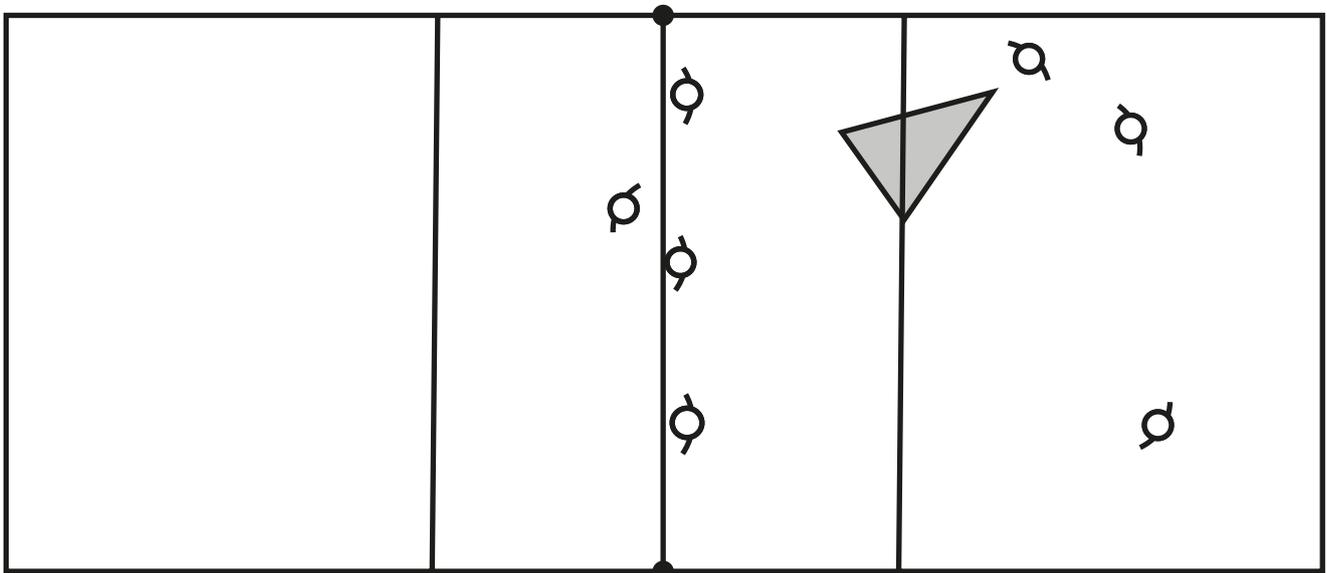


Diagram 10. Team lineup in defence in typical situation with quick attack from the middle (Source: Blain P., 2011)

In the case of a quick attack from zone 3 middle blocker covers zone 5 with block. That zone is the easiest for spiker, when he approaches from zone 4 or 4/5. Tip ball is covered with player operating in zone 1 assisted by blockers from 2 and 4 zone.

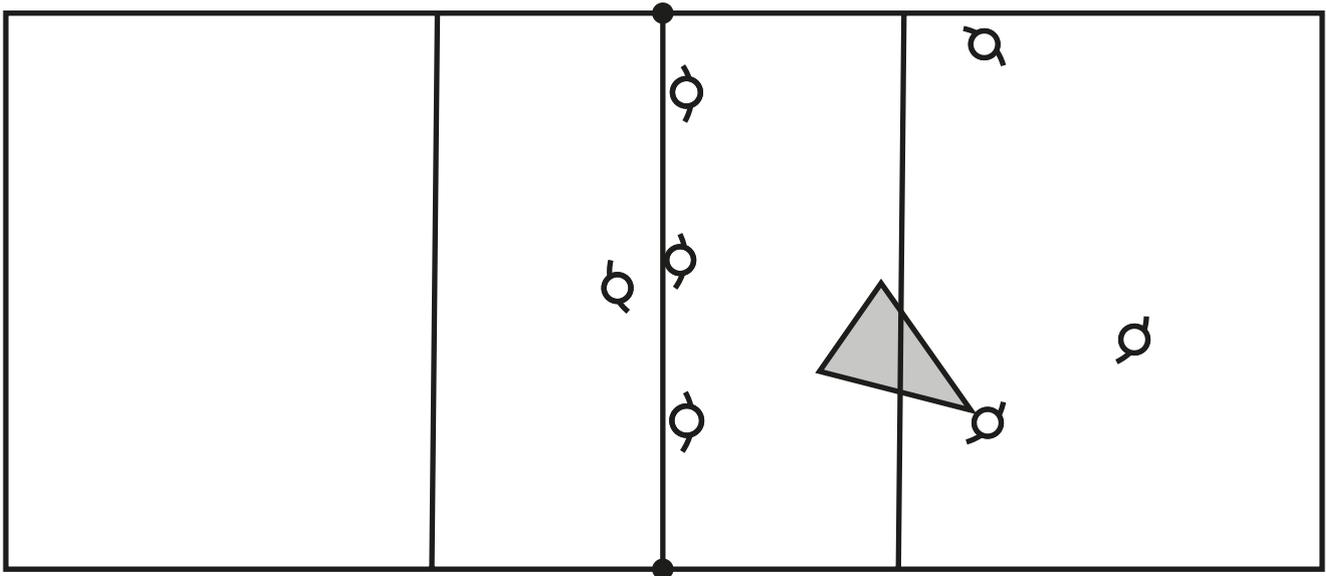


Diagram 11. Team lineup in defence in typical situation with quick attack from the middle; approach from zone 2 (Source Blain P., 2011).

Attacker approaches from zone 2 or 2/3. Block covers zone 1.

TEACHING IN SPORT

1. TEACHING AND LEARNING IN THE SPORT

Being a coach imposes many duties on us and requires to enter different roles. One of the most important roles is the role of a sport teacher. The coach's tasks in this role include the preparation and implementation of teaching and learning processes. The subject of teaching are activities specific to a given discipline. In training practice, we often talk about teaching the game technique, but the volleyball player tries to achieve a goal in every contact with the ball. This means that when teaching volleyball, we must create conditions for flexible use of the technique in achieving goals – i.e. the player's actions. Therefore, the subject of teaching are technical and tactical activities based on open sensomotor habits.

1.1. Learning

Learning is a relatively permanent improvement in performance capability arising from the practice (Martens R., 2012). Today scientists say that athletes learn new motor skills on the basis of rules of performing abstracted from specific exercises and created in their mind. Each time athletes perform complex skills (which are typical in volleyball and team sport games as well), their brains will seek to abstract four types of information about the movement:

- the condition of environment and the position from which performance is initiated;

- the demands of the movement being performed such as speed, direction and force
- the consequences as perceived by the senses during and after the movement
- a comparison of the actual outcome with the intended outcome based on available feedback

When practice goes on rules of performing change to the motor program. Motor program is a complex set of rules that, when called into action, permits athletes to produce movement. Once the movement is initiated basic pattern of action is carried out. Minor adjustments can be made in the basic movement pattern, but the pattern itself cannot be changed. Remember that a motor program is only generalized program of movement and to produce effective action players should add to it details of specific situation.

Learning is the process, so it has the stages. Martens points out three stages of learning: mental stage, practice stage and automatic stage.

Mental stage

When you learn some sport skill, your first objective is to understand what is required to perform the skill correctly. It needs great mental activity as you search for mental plan of the correct technique and strategy. In this moment coach has to find the way to help you to understand the skill sequence and components through explanation and demonstra-

tion. Time needed for good understanding is very different, so coach should show a lot of patience. In the mental stage also practical exercise are involved.

Practice stage

In this stage the emphasis is on quality practice to refine the skill. Mental energy is put then on timing and coordination of each phase. Number of errors often decreases and the performance becomes more consistent. Do not forget about the feedback (sensory and oral) and let the athlete to detect the errors and make adjustments. Coach has to make decisions on how often and how long you practice, the drills selection and when to move to more advanced exercises.

Automatic stage

As the practice continues, the skill becomes more and more automated. Consequently you free up more mental capacity—which you can use to focus on the more critical skill aspect and handle with more difficult situations and opponent to reach superior performance.

1.2. Teaching Methods

During lessons and training sessions, the teacher or coach must provide guidance to the athletes to ensure they learn effectively. To do this the demonstration and practice of the new skill will be manipulated by the coach to best suit the individual, skill and situation.

There are four parts to teaching a new skill:

Instructing—instructions must be given for them to complete the task or skill. These may be written or verbal. The teacher must ensure the student knows what is required of them. Introduce the skill with enthusiasm expressed in actions and words. Speak clearly and use language athletes can understand; the younger players the simpler words. Be brief too. Say what you have to say in less than 3 minutes. Avoid sarcasm, annoying mannerism and abusive language—they create negative learning environment (Martens R., 2012).

You can follow these three tips

1. Get the team's attention
2. Arrange the team so all can see and hear.
3. Name the skill and give the reason for learning it.

Demonstrating—The teacher may provide a demonstration of the skill or may get a peer to perform it. It is key that this is a good demonstration to allow the student to form a model in their memory and mentally rehearse the skill to be performed

An effective demonstration and explanation consists of a sequence of four steps.

- Get athletes' attention
- Demonstrate and explain
- Relate to previously learned skills
- Check for understanding

Applying—The student then practises the skill in a planned situation to help them transfer the learning from practice to a competitive situation. In this particular moment coach should decide on method of learning that will be applied (see: methods of practice)

To enhance results it is recommended to use "principles for better practice" given by Martens (2012).

- Practice the right skill.
- Practice the skill in contestlike conditions as soon as the athletes can do so.
- Keep practices short and frequent.
- Use practice time efficiently.
- Make optimal use of facilities and equipment.
- Make sure athletes experience reasonable amount of success at each practice.
- Make practice fun.

Confirming—This is all about feedback and providing information for the student about how successful they have been. Testing or assessing the skill allows the teacher and the student to evaluate performance. After the confirmation stage it is sometimes necessary to correct errors. When correcting errors try to do it in positive way. Mistakes are part of learning and players should know that. Remember that it is better to make the correction individually or in the smallest possible group instead in front of whole team.

1.3. Types of Practice

There are four types of practice which can all be used in different situations and dependant on the skill being learned (Simms S., 2019).

Fixed practice—These are sometimes also known as drills and involves repeatedly practising a whole skill in order to strengthen the motor programme. This type of practice is best with discrete, closed skills

Massed practice—This is a continuous form of practice which is best for simple skills. An example would be a rally in badminton where the learner must repeatedly perform drop shots. This causes fatigue and therefore simulates the late stages of a game

Variable practice—This is used best for open skills and involves repeating a skill in varying situations. For example practice of serve in volleyball, where the coach may set up drills and alter the starting position and involvement of receivers. This helps to build up schema to use in game situations

Distributed practice—Attempts at the skill are divided up with intervals inbetween to allow for rest and mental rehearsal. This is best used in difficult, dangerous or fatiguing skills and with young or lowly motivated individuals

1.4.. Methods of Practice

Certain skills are best taught in different ways depending on the learner and the skill.

Whole method

The skill is first demonstrated and then practised as a whole, from start to finish. It helps the learner to get a feel for the skill, timings and end product. It is best used for fast skills which cannot easily be separated into sub-parts, such as a javelin throw. It is unsuitable for people with low attention spans, complex or dangerous skills.

Part method

The parts of the skill are practised in isolation which is useful for complicated and serial skills and is good for maintaining motivation and focusing on specific elements of the skill. It is possible, however, that the transfer of the skills from parts, to a whole may not be effective and it may also reduce the kinaesthetic awareness (feel) for the full skill.

Whole-part-whole method

The whole skill is first demonstrated and practised, before being broken down into the constituent parts to practice the individual elements and improve on these, before putting the whole skill back together. This can be very effective in skills which have easily distinguished parts, where the whole skill together is complex. A good example comes in swimming, where the learner would practice the whole stroke, then isolate a weak component, such as the kick and use a float in the hands to ensure using only the legs, before putting the whole stroke back together. This gives the performer a sense of the whole skill before they break it down and improve on the weak aspects of the performance. As with the part method this may affect the transfer of the skill from parts to the whole.

Progressive part method

This is sometimes also known as the chaining method, as the parts of a skill are practised individually, in order, before being linked together and expanded. For example in the triple jump, the hop will be practised and learnt, before the skip is then practised and learnt. The two are then linked together. Finally the jump will be learnt individually and then tagged on the end of the skip. This is slow process but allows weaknesses to be targeted and for the performer to understand the relationship of the sub-routines.

TEACHING METHODOLOGY IN VOLLEYBALL

In the past, teaching volleyball was based on a simple scheme resulting from the belief that in order to play volleyball one must first master the correct technique of the most important activities (American Sport Education Program 2007). For this reason, a lot of time was devoted to teaching technique and only then the game was introduced. As a result, learning did not include the use of skills in the game. The trainees did not always understand the context of the use of given techniques in the game well and were not able to effectively apply them to implement actions. The second reason, which leads to giving up this way of teaching, is the rapid boredom of young people caused by many repetitions of exercises without a strong connection with the game. Organizing learning by depriving children of their natural desire to play is a step in the wrong direction.

Game-oriented learning should be implemented in four steps

- Step 1: Use a teaching game
- Step 2: Help players discover what to do to play effectively
- Step 3: Teach specific game skills
- Step 4: Train your skills through the next game

STEP 1

Didactic games help players learn about the mechanisms governing the volleyball game and make attempts to solve typical tasks in the game on their own. These are games that retain the nature of volleyball, but contain simplifications that allow to play with limited or even zero technical skills. The simplifications that occur in them may relate to the size and shape of the pitch, type and characteristics of the ball, the number of players, the way of scoring, ways of using the ball, but at the same time retain the character of competition typical for volleyball. This character is determined by:

- short contact with the ball,
- teamwork,
- no direct contact with the opponent,
- physical barrier between teams (net),
- result change after each action.

STEP 2

During the didactic game, the trainer must closely watch the players to help them understand the game when necessary. He sometimes can pause the game, enter the field and ask questions about the mistakes he noticed. The questions should relate to effective modes of action, decisions taken or techniques used. This stage requires time and conscious action of the athletes. Its duration can vary. Through teaching games and skillful questions, players should independently

figure out what techniques are best in a given situation and what determines the success of the action.

STEP 3

When the players understand what skills they need to play effectively, they are ready to start teaching exercises. These exercises can be performed according to traditional volleyball teaching methodology. It is important to include gamelike exercises in teaching. This will remind practitioners of the importance of taught activities for effectiveness in the game.

STEP 4

Once the skills are mastered, players can return to the game. It may be a game from step 1, but it will be more interesting for players to apply skills in the specific game or in a game with fewer simplifications than in step 1. Another solution to increase the number of situations in which players perform particularly important actions in the game and the level of difficulty increases at this stage is to bring one team advantage. An example would be a 3x3 game in which team A has an extra player in the serve reception. So, when team A receives the service, the game is played 4x3. This facilitates offensive actions of this team and makes it difficult for team B. In this step, it is recommended to use the proper game first and then with the advantage of one of the teams.

In order for trainings and exercises to be effective, it is worth answering several questions when using new means using the training checklist.

- Do trainings entertain?
- Are the trainings well organized?
- Do all players take active part in exercises?
- Do trainings allow players to be creative and independent?
- Is the trainer's feedback relevant?
- Are the classes trainings in line with the image of contemporary volleyball?

1. METHODOLOGY OF VOLLEYBALL POSTURES AND THE MOVEMENTS

In teaching ready posture and other techniques, it is worth to use key points describing briefly the most important elements affecting the effective performance of a given activity proposed by Superlak 1995. Using key points in teaching facilitates communication with the player, especially when you need to correct the mistakes he makes and directs his attention to the most important elements without providing too much detail. Ready posture (both high and low) has the following key points:

- feet shoulder-width apart; one foot extended half a foot in front,
- hands in front of the knees,
- knees in front of the toes,
- hands between the chest and hips,
- mental readiness to act,
- anticipation and perception of: the opponent, partners, net, balls.

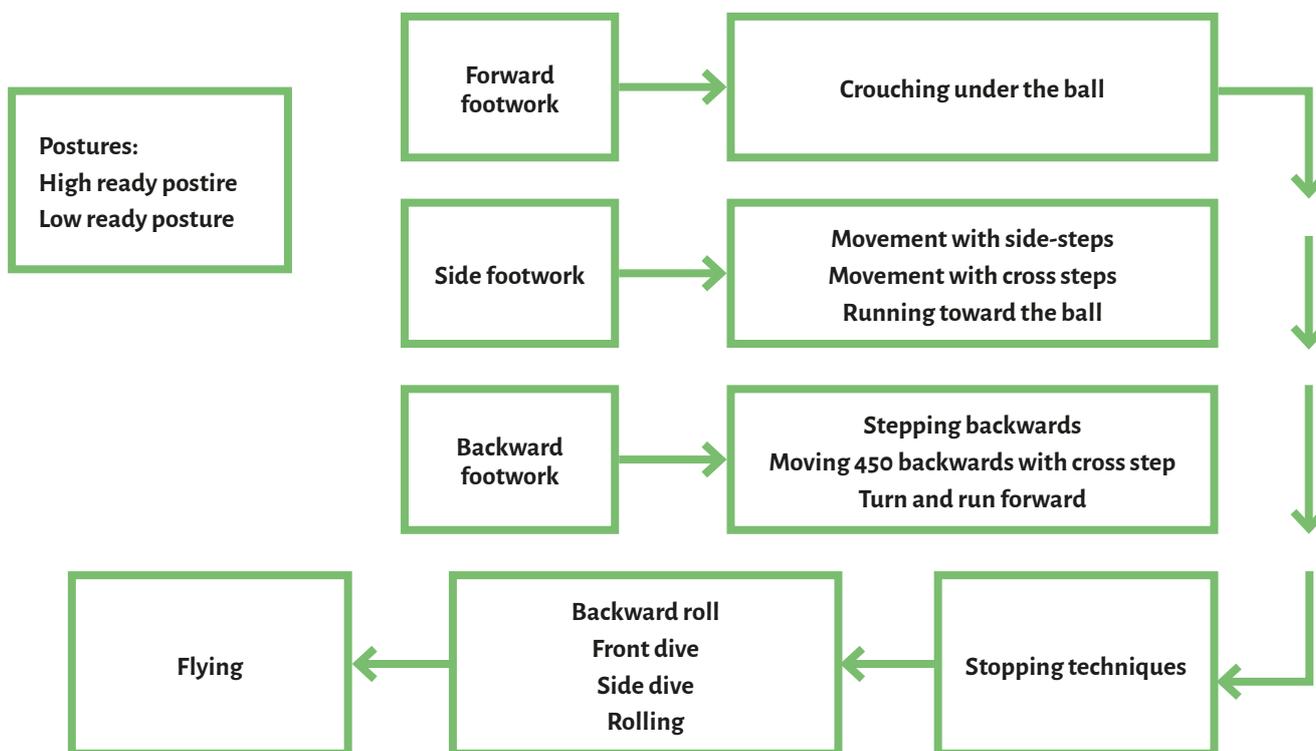


Diagram 12. Teaching methodology of postures and movement in volleyball (Source: Toyoda H., 2011).

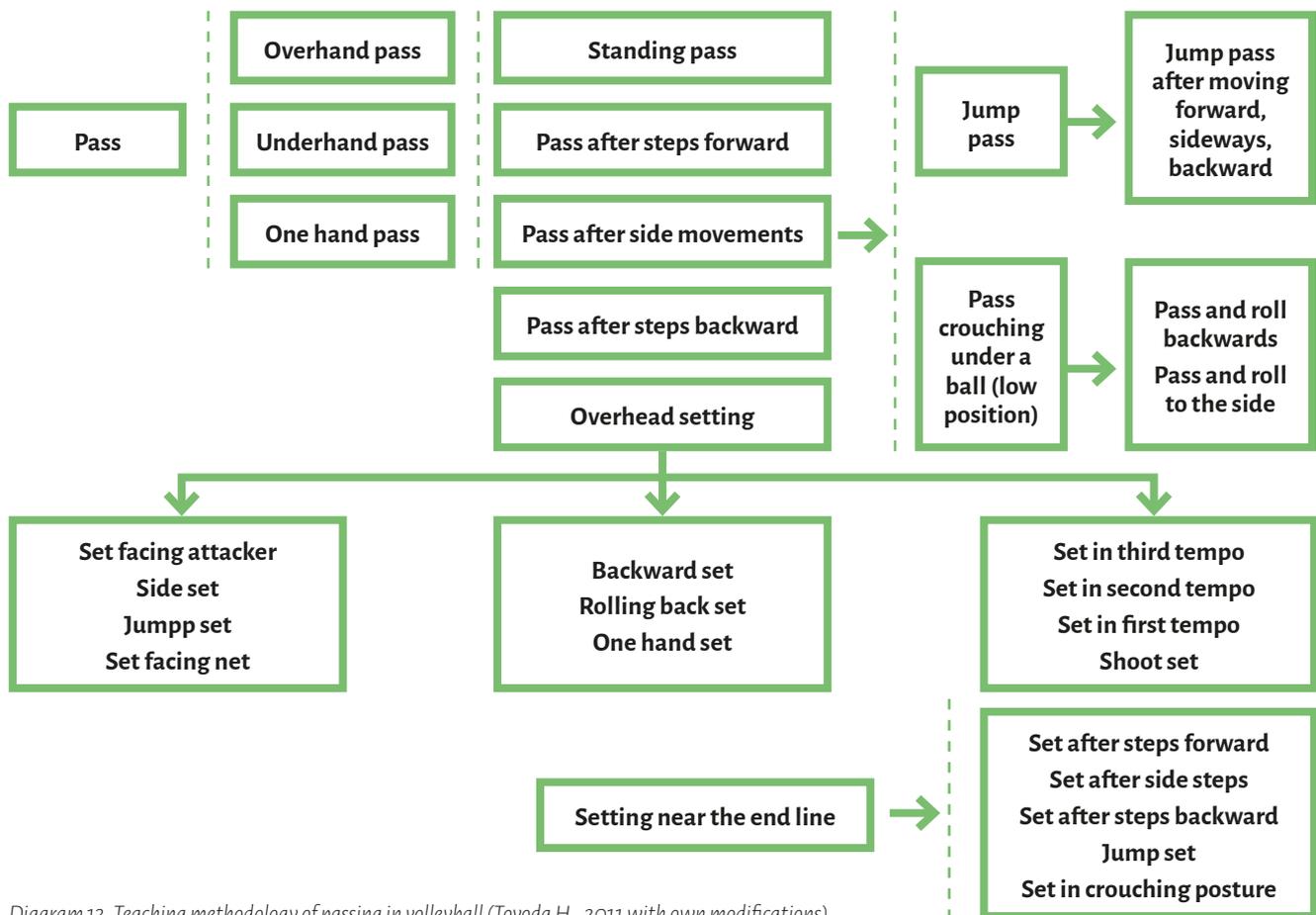


Diagram 13. Teaching methodology of passing in volleyball (Toyoda H., 2011 with own modifications)

2. METHODOLOGY OF PASSING

The ball passing will split into overhand and underhand. In the overhand pass, the most important technique is two-hand overhead pass using the fingers, mainly used in setting the ball to attack and defending easy balls and in receiving the service. In the underhand pass, the most important technique is the two-hand underhand pass, which is the basis for service reception and defence and is also used in setting the ball to attack.

Key points of overhead pass are (Superlak E., 2006):

- high ready posture,
- placing hands in the shape of a basket in front of the face,
- hand contact with the ball in the second phase of leg extension,
- correct position relative to the ball and direction of pass.

Key points of underhand pass are (Superlak E., 2006):

- low ready posture,
- creating the largest ball contact plane by proper arranging the forearms,
- hand contact with the ball in the second phase of leg extension,
- contact with the ball in the space between the knees,
- correct position relative to the ball and direction of pass.

3. TEACHING METHODOLOGY OF SERVICE

The service is a skill which, together with the team's first contact (reception and defence), is of great importance for the game flow at the stage of its teaching. Errors in these activities contribute to a decrease in the attractiveness of the game, frustration and boredom of the exercisers, and in consequence a decrease in motivation to exercise. In turn, when we talk about high-level volleyball, the effectiveness of the serve is crucial for the possibility of winning the match.

There are many service techniques in volleyball (Diagram //), but tennis style service has gained the greatest popularity in European countries (including Russia), Asia, North and South America, Africa and Australia. The hook (also called roundhouse) service is still used mainly in Southeast Asia and underhand service is a popular technique in recreational volleyball and in children's play. The methodology presented in this study will therefore concern tennis style service. This technique can be performed in jump or in contact with the ground. Both, in the jump and in contact with the ground, the hit method can be divided into a rotational hit or a non-rotational impact.

Key points of the service are (Superlak):

- assessment of opponent team positioning,
- choosing the place and type of service,

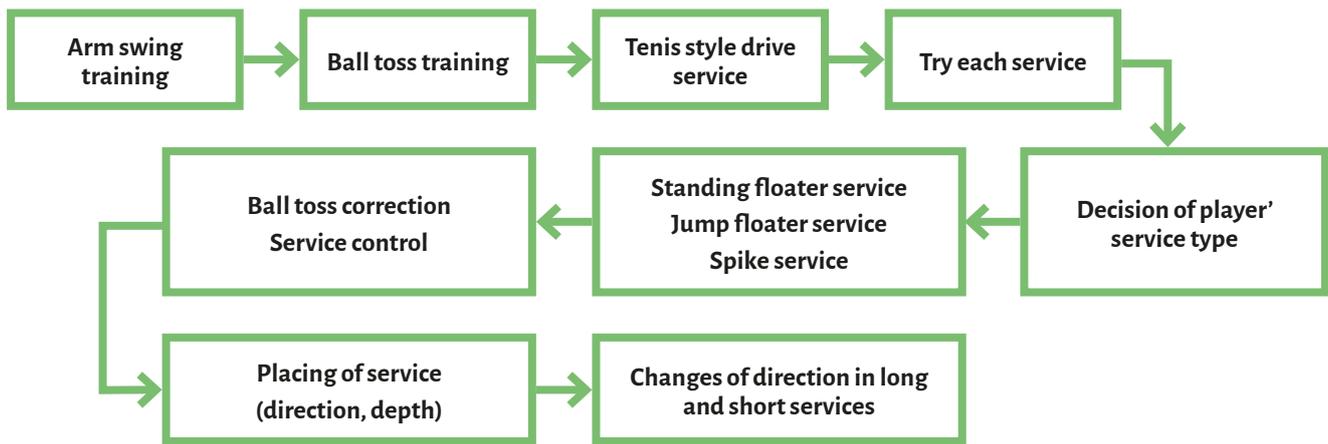


Diagram 14. Teaching methodology of service (Toyoda H., 2011 with own modification)

- the correct ball toss and arm swing for the selected service type,
- stable posture (balanced body position at the jump service) at the time of the ball hit

team's third touch. The most common attack methods are spike, soft spike (drive) and tip.

Key points of attack according Superlak (2006):

4. TEACHING METHODOLOGY OF ATTACK

According to the rules of the game, each play of the ball towards the opponent's court with the intention of scoring a point is an attack except for the service and the block. Unless the situation on the pitch allows otherwise, players often attempt to score a point, for example with standing underhand pass, and of course sometimes they are successful. A wise, brave and well-trained player should make such attempts (at a reasonable level of risk), but when we talk about teaching an attack, we mean jump offensive moves, most often in the

- the correct course of the preparation phase by selecting the position before the start of the approach
- in the take off phase the leg opposite to the attacking hand extended forward
- during the jump phase optimal body position in relation to the net and ball
- deciding on the direction and method of the attack based on the assessment of the situation,
- being ready to self attack coverage after the attack.

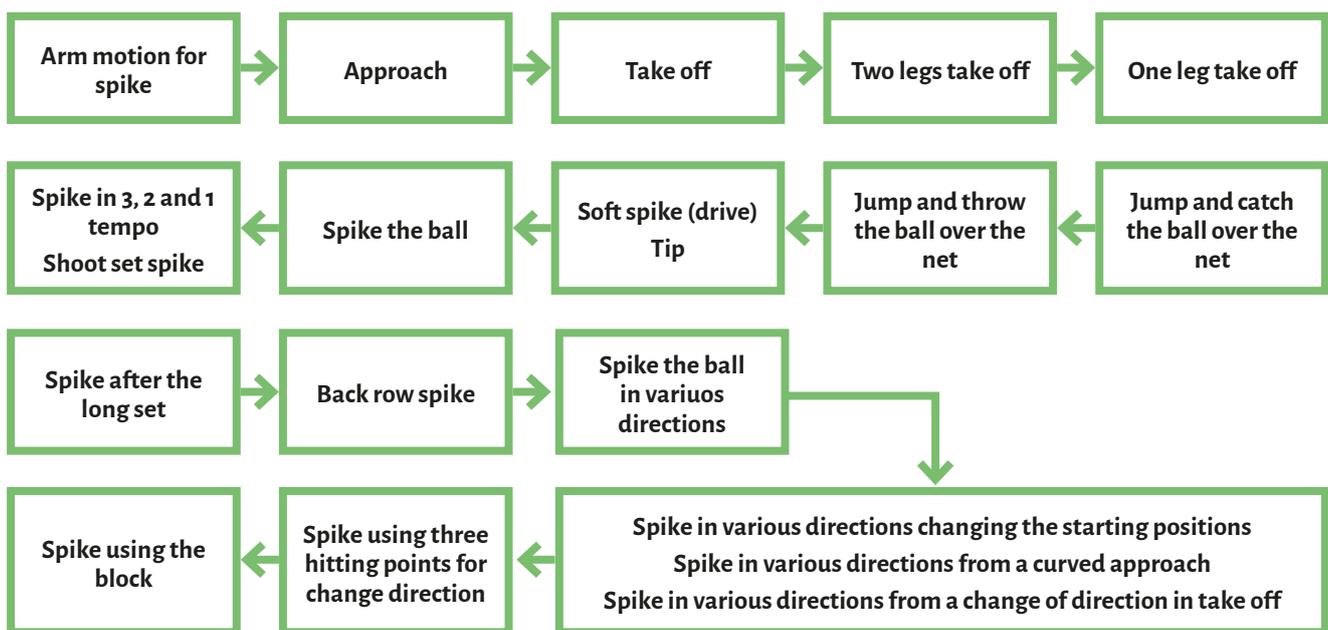


Diagram 15. Teaching methodology of attack (Source: Toyoda H., 2011 with own modifications).

5. TEACHING METHODOLOGY OF BLOCK

In volleyball you can score points with attack, service, block and opponent's errors. So, block is one of three scoring actions of the team that depend mainly of team itself. Effective block performance depends on many technical details, good prediction of opponent actions, and good blocking cooperation with non-blocking players.

Key points in blocking (Superlak 2006):

- proper posture (high ready posture with hands on arms height or higher) and choice of starting place,
- anticipation of the actions of partners and opponents,
- selection of an optimal way of moving, time and place of jump,
- choice of block execution method due to the situation (type of attack, distance between the ball and the net).

VOLLEYBALL DEMANDS AND TEAM MANAGEMENT

1. PHYSICAL DEMANDS FOR THE PLAYERS

Volleyball, like other team games, is a sport for people of different age and fitness level. However, this is the assumption regarding the recreational volleyball. If you are healthy and want to play volleyball to relax and keep fit, volleyball is certainly an interesting proposition.

The situation is slightly different when your goal is to strive for a high level of championship through sports training and achieving good results in competitions. Then you need to take into account the characteristics of players at the master level as a reference. However, remember

that in both cases the basis is good health without contraindications for sports.

The data below applies to adult players at the master level, so when you make a decision that you want to start sports training and your goal is to reach a high level, check that you are close to this model. If so, it will be much easier for you. If you think that you are far from this model, then think carefully. For children and adolescents, the task of trainers is to assess as early as possible what the development potential is and what parameters in adulthood the player can achieve.

R. Martens (2012) in his best selling book on sport training "Successful coaching", highlights approximately demands for fitness in volleyball sport and identified importance of these abilities as low or moderate or high. He divided fitness to energy fitness and muscular fitness. Energy fitness involves storing and using fuel to power muscle contractions and muscle fitness encompasses flexibility, strength, muscle endurance, power and speed.

Table 1. Ability type and their importance for volleyball (Source: Martens R., 2012)

	Ability type	Importance
Energy fitness	Aerobic fitness	Moderate
	Anaerobic fitness	Moderate to high
	Flexibility	Moderate to high
Muscle fitness	Strength	Moderate
	Endurance	Moderate
	Speed	Moderate to high
	Power	High

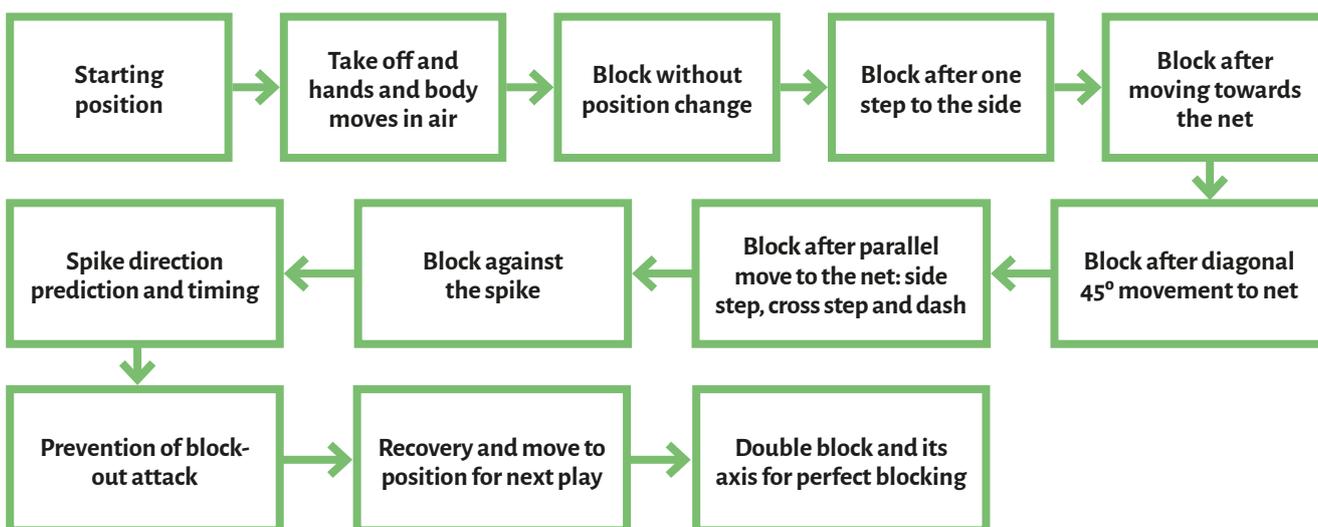


Diagram 16. Teaching methodology of block (Toyoda H., 2011 with own modification)

Table 2. Body height of womens teams at 2014 FIVB World Championships (Source: <http://www.fivb.org/TechnicalEvaluation/Competitions/wch2014women/personaldata>).

Place	Team	Team with libero	Team without libero	Team min	Team max
1	USA	185	187,08	167	193
2	CHN	186,71	188,83	168	199
3	BRA	184,58	185,43	169	196
4	ITA	181,86	184,42	159	202
5	DOM	185,75	187,45	167	200
5	RUS	187,5	189,67	174	202
7	JPN	173,57	175,75	157	185
7	SRB	186,64	189	167	196

1.1. Body size and body composition

Body height of women participants of the World Championships and Olympic Games, according to long-term observations (1984–2014) indicates a tendency for a small increase, and the average body height is in the range of 180–190 cm

Among men, the average height tended to increase from 1968 to the mid-1980s and then stabilized at around 197 cm (Grządziel G. 2012)

Examples of data on top level players' body composition may be information provided by Bankovic V., Dopai M., Terzic Z. and Nestic G (2018). The research was based on the women's team of Serbia—olympic champions from Rio de Janeiro.

Table 3. Body height of mens teams at 2014 FIVB World Championships (Source: <http://www.fivb.org/TechnicalEvaluation/Competitions/wch2014men/personaldata>).

Place	Team	Team with libero	Team without libero	Team min	Team max
1	POL	198,1	200,1	184	211
2	BRA	193,43	199,83	188	212
3	GER	199,71	202,42	182	210
4	FRA	195,6	197,25	183	209
5	RUS	200,07	201,9	188	218
5	IRA	194,42	197,83	165	205
7	CAN	197,21	198,5	182	208
7	USA	196,78	199,41	178	205

The results showed that average height of the women players was 188.93±6.49 cm, the overall mean body mass (BM) value for the Serbian team was 75.56±6.97 kg, the overall mean body mass index (BMI) value for the team was 21.08±1.30 kg/m², while the mean values for percent skeletal muscles and body mass were 48.95±1.78% and 13.43±2.70%, respectively. Upon a thorough analysis of the results of the study, it can be argued that in all measured anthropomorphological characteristics the top elite women volleyball players from the tested sample had a body type of remarkable basic longitudinality, i.e., body height (BH), and a body composition mainly characterized by very high muscle mass but such a low amount of body fat that it bordered on the biological minimum for women

To find out about the characteristics of men, it is worth to read the research presented by Campa F. and Toselli S. (2018). They studied men appearing in volleyball leagues in Italy (Serie A Superlega, Serie A2 and Serie B)

The study included 201 athletes (age 26.1 [±5.4] y, height 191.9 [±9.7] cm, weight 86.8 [±10.8] kg in average values) registered in the Italian volleyball divisions. The athletes were divided into 3 groups: The elite group comprised 75 players participating in the 1st (Super Lega) division, the subelite group included 65 athletes performing in the 2nd (Serie A2) division, and the low-level group included 61 players participating in the 3rd (Serie B) division. Selected indexes of the athletes were measured in the second half of the competitive season. Results showed that the elite group had a greater amount of fat-free mass (FFM) and total body water (TBW) and a lower fat mass (FM) than the subelite group. In addition, the elite players were taller and heavier and had a higher FFM, FM, TBW, and body cellular mass than the low-level athletes. Motor co-ordination

1.2. Motor skills

Among types of skills employed in sport we can mention: motor skills, cognitive skills and perceptual skills. When talking about motor skills, we can divide them to coordinative and conditional skills (Simonek, 2014). Simonek points, that coordinative skills are:

- a. reaction,
- b. rhythm,
- c. spatial orientation,
- d. balance,
- e. kinaesthesia.

According to Raczek (Raczek J., Mynarski W., Ljach W., 2001) complex of coordinative skills is formed by: reaction time, motor adjustment, sense of rhythm, kinesthetic movement differentiation, movement frequency, space orientation, sense of balance and movement combining. Raczek (2001) writes that the meaning of coordinative skills varies widely among sports, which of course has to do with the nature of the competition. He indicates that in team sport games they ensure effective

tive implementation of activities in diverse conditions with constantly changing situations and tasks.

The researches (Raczek J., Mynarski W., Ljach W., 2001) show that in volleyball some of coordinative skills are especially important and it can be showed as hierarchy:

- a. motor adjustment,
- b. kinesthetic movement differentiation,
- c. space orientation,
- d. movement combining,
- e. reaction time,
- f. sense of rhythm,
- g. sense of balance.

The high level of coordinative skills development can be stimulated by properly prepared and implemented training. Training directed at the development of these skills is one of the most important tasks faced by trainers of children and adolescents, and in adult athletes it significantly complements and harmonizes the process.

1.3. Speed

Due to the specificity of volleyball, where it is important to be at a given point in the field of play before the ball, speed will be important for volleyballers. The speed of a flying ball can reach in service and attack up to 120 km/h and the opponent takes offensive actions of short duration and surprising character, and this raises the requirements of volleyballers' speed.

These conditions create requirements for various manifestations of speed in the volleyball. The following aspects of speed will be important for a volleyball player:

- a. reaction time (mainly complex reaction time),
- b. speed of locomotion,
- c. speed of single movement.

You should also remember the importance of speed for one of the most important components of the volleyball player's game, which is power.

Power is crucial for the height of the jump (in attack, block, service or in jump set) and the speed of the ball hit (in attack and service) and depends directly on the speed and strength developed in a given move.

According to Dintiman and Ward (2003) there are five aspects that affect player speed:

- a. starting ability, which includes quick start from different postures and types of movement;
- b. stride length;
- c. stride rate (number of steps taken per second);
- d. speed endurance;
- e. sprinting form and technique.

These aspects can be subject to training and therefore the speed of players can be improved. Dintiman (2003) determined the importance of these aspects in four popular team games (baseball, basketball, american football, soccer). For example, in basketball and football, their proposal is as follows.

Similar hierarchy in volleyball may have look like this:

1. Starting, accelerating, stopping and cutting;
2. Stride rate;
3. Stride length;
4. Speed endurance;
5. Sprinting form.

1.4. Strength

Strength is a motor ability defined as the ability to overcome external resistance, or the ability to resist external force. Undoubtedly, this is one of the most important abilities for all athletes, regardless of the type of sport. This is due to the strong relationship of strength with other motor skills and its importance for injury protection. Motor skills that are important in volleyball strongly related to strength are power and speed. A player with a good level of muscle strength and a proper balance of strength of individual muscle groups is also less susceptible to injury (Gadula 2019). Strength is one of the bases of great importance

Table 4. Relevant aspects of speed in selected team sport games (source: Dintiman G. B., 2003)

Basketball	Soccer
1.Starting, accelerating, stopping and cutting	1.Starting, accelerating, stopping and cutting
2. Stride rate	2.Stride rate
3.Speed endurance	3.Stride lenght
4.Stride length	4.Speed endurance
5.Sprinting form	5.Sprinting form

for volleyball activities, such as service and, above all, attack and block. Better player strength parameters will affect the effectiveness of action in service, attack and block.

From the point of view of the requirements set for volleyball players, the power generated during jumps (jump service, attack and block) seems to be the most important ability with a direct relationship with strength.

$$\text{POWER} = \text{STRENGTH} \times \text{SPEED}$$

This means that one of the most important will be those muscle groups that work during jumps and movements related to hitting the ball in attack and service. Of course, according to the formula, these movements should be carried out in the shortest possible time to achieve high power.

The next task for the players is to maintain high power throughout the match, i.e. for about 60 to 120 minutes. This, in turn, will require the development of strength endurance, which will allow you to make movements with a force not falling below a certain level.

In addition to power aspects, in strength preparation of players it is important to build strength of the torso muscles and maintain a proper balance between muscle groups. The strength of the torso muscles is important for the stability of the torso in all movements and especially during movements performed with great power. This enables better use of the strength potential in terms of power. Furthermore, the player with well-developed muscles stabilizing the torso has more control over his body, which prevents injuries. The last issue related to strength preparation is achieving and maintaining proper muscle balance between individual groups. His absence reduces the effectiveness of movements and can be the beginning of a chain of events leading to injury.

1.5. Endurance

Volleyball players' endurance will be related to their ability to maintain power in their movements (jumps, strikes, starts) throughout the match. Therefore, the volleyball player's effort should be classified as mixed effort. An important aspect of the endurance of volleyballers is jumping endurance and high overall physical fitness as the basis of motor training.

1.6. Flexibility

When we want to understand the importance of flexibility for athletes, including volleyballers, it should be taken into account that high flexibility, which is the range of movements in the joints should not be the goal of training in itself. For the athlete to work effectively and avoid overloading the locomotor system, the right balance between flexibility and stability of different body parts in specific movements is important. Therefore, the goal of the training process will be to achieve optimum flexibility and stability.

Jetchev J. (2012) presents the requirements that particular activities in the game place in this area.

Table 5. Requirements for flexibility of volleyball players in particular actions (Source: Jetchev J., 2012).

Attack, serve	Range of movement and stability of the shoulder joints and chest
	Range of movement of the thoracic vertebrae
	Stability and strength of the trunk
Reception, digging	Flexibility of the ankle and hip flexor joints
	Stability of the shoulder and the elbow joints
	Stability of the trunk
Block	Stability and the strength of the trunk
	Stability of the shoulder and the elbow joints
Pass	Range of movement and stability of the shoulder joints and the chest
	Range of movement of the wrist joint
Jump	Muscular strength (power) of the buttocks and the legs
	Strength of the trunk

2. TEAM MANAGEMENT

Managing a team of players is an issue that is as important in a coach's job as teaching, training and upbringing. The basic issue is the awareness that except a single player, the entity to be affected may be a group of players or a team. Especially when working in a team of adult, professional players, the trainer becomes also a manager of a team of professionals with very diverse functions. The team management process is implemented in an environment that affects the functioning of the team with varying degrees of strength. The most important elements of the team's environment include: the organization within which the team operates (club, sports association, company), school or college, organization employing players, social environment (local community, family environment), legal environment (game regulations and discipline regulations, sport law), competition (rival teams and other sports organizations or clubs), physical environment (sport infrastructure and facilities, physical environment) or media (traditional and electronic media).

2.1. Team members (coach, players, staff)

When we talk about team members, the most obvious is that they are players. Despite this, they are absolutely not a homogeneous group. They will be different due to: age, experience, sport level, functions on the field, physical parameters as well as social and material position in the team. These differences mean that in order to effectively manage a team, the trainer must apply a slightly different approach and methods

of interaction with different players. The effect that should be sought here is the players presenting behavior translating into high efficiency on and off the pitch and in line with the expectations of the coach.

The trainer himself is another fundamental entity in team management. To effectively influence a team, he must build a stable and clear work philosophy and have a well developed self-awareness that will allow him to be credible in their activities. One of the most important tasks of a trainer is to help players achieve results adequate to the level of talents and current capabilities.

In the work of many trainers, the entities he influences are basically the players and himself. It's great when the trainer makes successful attempts to influence the elements of the social environment of the players (parents or life partners, educational institutions), but in most cases the impact ends with the players and the trainer (self-management). It should be noted, however, that there are also trainers who must also manage a team of specialists supporting his work, i.e. a training staff.

2.2. Setting the goals

The trainer is the team management entity, so it is mainly for him to set goals. Goals are a tool with great power for people. People act much more effectively when they have a goal. The goals that the trainer sets are very diverse. They relate to different time perspectives. Therefore, we have long-term strategic goals (i.e. career or sport education goals or goals in the olympic cycle), medium-term goals (annual, semi-annual, monthly) and short-term goals (bi-weekly, weekly, training unit goals, single exercise goals). Another axis of the division of goals is their diversity due to what they relate to. The tasks of the trainer in setting goals in this case relate to: sports results (ranks in the competition or a detailed time, distance or weight), mastering skills and presenting specific behaviors. The last level of goal differentiation will be the breakdown by entity to which they were set. Here, of course, we will talk about a single player, a group of players, a team of players or a sports team (by team is meant here players, coach and staff).

Matsudaira (2011) presents interesting remarks about the targets of the trainer at work with young players.

- A coach must not place impossible skill targets on players but rather set many targets that can be relatively and easily achieved by anyone if they work hard. This will lead to beginners being surprised by their significant progress, which occurred without their notice.
- No matter how small the target is, when it is achieved. The coach should be unstinting in encouraging the player with praise and enjoy the moment with player. This attitude will shorten the distance between the beginner and coach at once and build a sense of unity and relationship of trust between them.
- Don't be afraid to ask about players' dreams. Each of them has some. When you show how your work and goals set, can approach athlete to the dreams, you will reach great layers of intrinsic motivation.

When the long term goals are set, it is recommended to break down them to goals for a year, half year, month heading to the goals for single exercise. It will keep the player on the proper direction, but coach should be ready for an adjustment when it's necessary.

Mike Herbert gives some hints on goals setting (2002).

- The goals should be adequate to team level of play and realistic.
- Coach should deeply believe that the goals could be reached and keep that belief all the way.
- Coach has to buy into the goals the team leaders.
- The goals were set without taking into account what would motivate the players.
- Coach should empower his players to pursue the team goals.
- Proper environment in which goals could grow has to be cultivated.
- The goals need to be clarified at the beginning of the season and reinforced regularly.
- The goals should be structured with language understandable for team members.
- In goals setting use the knowledge on what motivates team – not you.

2.3. Leadership

Leadership in team sports is one of the tasks assigned to the trainer. However, regardless of the strength and nature of the leadership presented by the trainer, there are also other team leaders in each team. They are informal leaders who can belong to a group of players or be members of staff. Identification of informal leaders and effective cooperation with them is one of the important tasks. The entity that can combine informal and formal leadership is the team captain, but this is only one option that, despite its advantages, is not always used. In this regard, the specificity of the team determined by the personality of its members is the basis for the solutions developed. In other words, the way leadership is realized in a team depends on what people create it.

Despite the complexity of leadership of the sports team depicted, the trainer performs the main tasks in the field of team leadership (Martens R., 2012). Therefore, leadership is first and foremost the knowledge of what course to take to give others tips on what they should do, while having a vision of the final effect of their action. Leadership includes shaping the psychosocial environment – that is, team culture. Team culture is an environment in which each player has the maximum chance of success, which can be synonymous with team success. Leadership is about influencing others to achieve goals and outlining the future and organizing resources to move in that direction.

What leaders do:

- Leaders set the direction – set goals based on their vision of the future.
- They shape the environment and psychological and social con-

ditions that are conducive to achieving the team's goals, which is called the team's culture.

- They instill values, sharing in part their life philosophy.
- Motivate members of their organizations for group purposes.
- They react when problems arise in interpersonal relations and solve conflicts.
- They maintain constant contact with members of their organization, which allows them to engage in leadership activities.

2.4. Socialization and cohesion

The principle of socialization originates from the phenomenon of sport interactions, especially the social contradictions that can be part of competition and practice (Murphy P., 2012). The term "sport fight" symbolizes and characterizes this interaction and its different levels (naturesociety), poles (individual-group), aims (education-performance), etc.

Social effectiveness in a sport group is based on a balance of mutual competition and cooperation inside the group. If competition prevails, then hostile relationships increase and mutual tolerance, cohesion, identification, etc. decrease. If cooperation prevails, then it helps to create friendly relations between players, but it also decreases their mutual demands, criticisms, etc.

Friendly and unfriendly relationships may be of other origin. In terms of group effectiveness, it is necessary to take into account primary competition and cooperation, which directly influence the group atmosphere in training and contests. Cooperation without competition and competition with cooperation are only undesirable extremes which do not directly threaten the efficiency of a group, but which may gradually influence it unfavourably.

The control of balance between competition and cooperation is in the hands of the coach and depends on his style of guiding the group. A relatively objective attitude toward all group members in evaluations, observations, support, etc." helps to create this balance; any one-sided and subjective factor impairs this balance.

It is also important in keeping an atmosphere of competition to maintain and consider the aspirations of young players seeking group membership. Every member of the team has to fight for his membership by daily effort for performance improvement and by respecting valid group standards. To maintain good cooperation, it is helpful to delegate, equitably, various duties in the group. Do not allow such roles as "stars" or "newcomers" to influence mutual help, self-sacrifice, etc.

Volleyball is a type of sport characterized by maximal effort and close interaction by teamwork and deep cohesion. The term "teamwork" universally connotes cooperation on the part of a number of individuals working toward a common goal. Cooperation exists in all walks of life and is an integral part of every success.

Perhaps the greatest reward to be derived from membership in a team is the development of lasting friendships. These friendships are the natural result of the interaction taking place within a team composed of individuals unselfishly helping each other to accomplish personal goals designed to enhance the total team picture

The development of team cohesion is one of the most difficult tasks facing a coach. He must first have players available who are willing to sacrifice, cooperate, and work hard. To have a truly cohesive group, each individual must be willing to lose themselves within the group, not to the degree of being satisfied with being a second-stringer, but to the degree of placing the welfare of the team higher than their own personal goals. They can continue to work diligently toward their goal of becoming a first stringer but not at the expense of the team, and they should not have the feeling of animosity if they fail to achieve their personal goal.

According to Tutko (Murphy P., 2012), before true team cohesion can exist, these conditions should prevail:

1. Mutual respect
The players and the coach must appreciate the value of each individual to the team. This can be accomplished only after each player understands the difficulties of the other.
2. Effective communication
Each team member must be willing to communicate and work toward understanding others, as well as helping others to understand him. Since communication is a two way street, it must begin with the efforts of each player.
3. A feeling of importance
The genuine feeling that the player is a member of the team and that his feelings are recognized must be present. He should know that he will be recognized for whatever sacrifice he makes and that he will be supported by the other players and the coach.
4. Common goals
There should be a common belief in or an acceptance of the team philosophy and the plans they must follow to achieve their goals.
5. Fair treatment
Every player needs to feel that he is being treated as fairly as possible and that he is being given an opportunity to display and develop his talents to the maximum. Every athlete needs to feel that he is being given an equal opportunity in the first team or to play an important and particular role as substitute or reserve player on the bench or in training, and that he is being provided with a fair opportunity to star when the situation presents itself

The members of a cohesive team do not have to wonder what they might do, they know what they will do. This saves time, effort, and costly errors particularly during crucial periods.

In attempting to develop team cohesion, it is recommended to:

1. Have the players become acquainted with the responsibilities of others, e.g. change roles, change positions. This will develop more respect for the jobs of other athletes.
2. Have the players observe and record the efforts of other players at their positions, e.g. keeping statistics, observing the effort, analysing the competition.
3. Know something personal about each player, e.g. player's background, the birth dates.
4. Have the team members feel that they are a part of the team. Let them know that their voice will be heard, e.g. any player may speak to the coach privately.
5. Set goals and take pride in their accomplishment, e.g. individual and team goals must be successfully reached. Every small success counts.
6. Allow players to know their status on the team and provide justification for the status, e.g. objective evidence and objective decisions. The players must know their weaknesses and strengths, and then they can understand their position.
7. Emphasize the value of discipline, e.g. everybody has to fulfil the team duties. The more disciplined the team, the better they will be able to handle the situation.

2.5. Motivation

When talking about motivation Martens (2012) says: "People are motivated to fulfil their needs", so if you know what your athletes needs are and you are able to help them to fulfil, you possess the key to motivation.

Sport psychologists have learned that the two most important needs of young athletes are:

- to have fun, which includes the need for stimulation and excitement,
- to feel worthy, which includes the need to feel competent and successful.

By helping athletes meet their needs through participation in sports, coaches can influence players motivation. We got two kinds of reward: extrinsic (trophies, medals, money, praise and trips) and intrinsic (having fun and feel competent in something important, which generally are internally satisfying players participating sports).

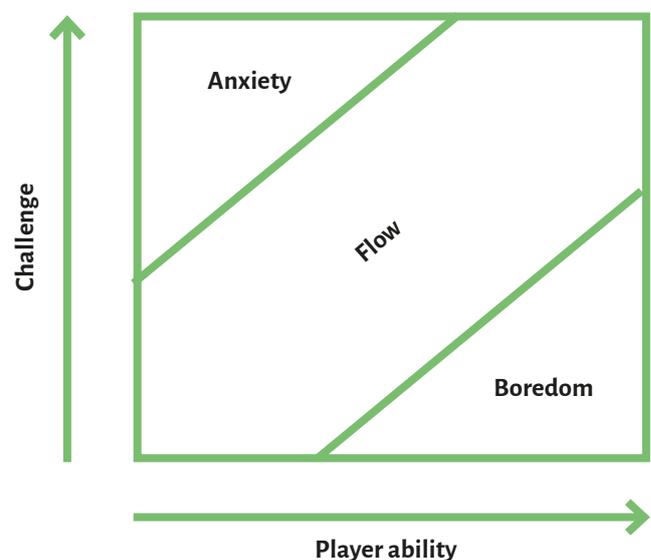
Extrinsic rewards can be motivating, but over time, these rewards become less and less valued while intrinsic rewards become more valued and self-fueled. Coaches can't provide them to players. They must create the conditions in practice and games that provide each player the opportunity

to attain their own intrinsic rewards. Great motivators don't motivate players but they create the climate where players motivate themselves and use extrinsic motivators to help build intrinsic motivation.

Key points about the motivation.

- a. Athletes are motivated to play sports to fulfil their need for fun and to feel worthy.
- b. People need optimal amounts of arousal.
- c. When one is optimally aroused, the "flow experience" is more likely to occur. In that state our attention is automatically concentrated, but the mind and body is relaxed, one feels everything is under control and activity is fun.
- d. You can help athletes experience flow state by matching the difficulty of the skill to the ability of the athlete, keeping practices varied and all players active, avoid continually instructing and evaluating your athletes.
- e. Sports are potentially threatening to young players because they equate their self-worth with their achievement.
- f. The most important way you can enhance athletes motivation is to teach them that success means achieving their personal performance goals rather than the goals of the others.
- g. You can play a vital role in helping athletes to set realistic goals.
- h. Athletes perform best when they are optimally aroused or motivated. Too little or too much impairs the performance. Optimal arousal differs between skills and people.
- i. Athletes become anxious when they are uncertain about whether they can meet the demands put on them and demands seem to them to be important. The greater the uncertainty and the more important outcome, the greater anxiety.
- j. You can help alleviate their anxiety by decreasing uncertainty and help reduce the importance of the outcome.

Diagram 17. Level of challenge in relation to athlete's ability (Martens R., 2012).



2.6. Team management during the game

Managing a team during a match is not limited to the work of the coach from the coach bench during the game. It is a set of activities covering the time immediately before the match, but often also getting to the match with meals or overnight stays, and after-match activities such as game summary, player rating or media responsibilities. That's why when talking about coach as match manager three stages of game management should be discussed:

- a. preparation of the team prior the game,
- b. managing the team during the game,
- c. match analysis and evaluation.

Before the match you need to know exactly what level of play our team can present, what will be the conditions of the competition (time of day, size and height of the hall, lighting, audience, referees, competition stage, etc.). The next task is to take as much information as possible about the opponent, including composition, previous results, game level, tactics and how the trainer leads the team.

When we have this data, we must prepare a game plan containing:

- the expected result based on rational data and premises. Of course, in order not to burden players, this information may remain only to the knowledge of the trainer,
- starting line – up,
- preparing substitution players by functions,
- attack and defence tactics,
- alternative tactical plan (plan “B”),
- elements of psychological warfare.

The time just before the match should also be well planned. This applies to arrival time, technical briefing and proper warm-up.

The general rules of running a team during a game can be summarized as follows.

- a. Analysis of the implementation of the game plan and its effects should be conducted from the very beginning of the game, taking into account the actions of the opponent. This will help prepare substitutions if necessary and assess the performance of our team on an ongoing basis.
- b. Keep the fighting spirit in the team throughout the match and show behaviours that demonstrate faith in ultimate success.
- c. In difficult moments of the game you have to try to change the rhythm of the game, take advantage of player changes and timeouts.
- d. The trainer should present behaviour motivating players to fight, regulate emotions, indicate desired ways of acting within the skills of players, suggest solutions in situations in the game.

- e. During the match, the coach usually makes important and difficult decisions. They relate to player changes, tactics changes, incentives used or feedback provided.

During the game, the team presents what they have developed during training and always formulating tasks in the game should be based solely on this. A situation where the coach requires players to do something that is not fully mastered or has not been the subject of training should be rare. In addition to the actions indicated above, the trainer also uses player changes, breaks between sets and breaks on demand to affect the team.

There are maximum four possibilities for a time-out in a set (two on demand for each team). The opponent's time-outs should be taken advantage of to inform the team of expected changes in the rival's tactics, to encourage the players to keep going and to keep the team ahead (not giving an opportunity to interrupt the sequence of points). The Golden Rule says: “The team must not make an error in service after the rival's time-out.”

Time-outs last 30 seconds only and they should be used wisely. It is necessary for all players to quickly meet the coach at the side-line. The coach must be constructive and concise. He must communicate (from prepared notes) the source of errors. Quarrels and discussions among players have no place during the time-outs. A personal approach to each player in conjunction with his personality is of great importance. At the end of time-out, the coach shows confidence in the team and re-establishes their fighting spirit and the will to win.

A time-out is needed when:

- The opponent has scored three or four points consecutively and there is a need to break his rhythm.
- The team is confused or some players repeat the same tactical errors.
- The coach wants to direct a close tactic, e.g., where to serve, what kind of attack seems to be most useful, where to block.
- The coach intends to change tactics due to the opponent's successful tactical plan.
- The players have given up and they need to be encouraged.
- The players need a rest for mental recovery after a very long (tough) rally.

The coach requests substitutions by considering the following aspects:

- Strengthening offence, defence or change the psychic climate on the court with a specialised player.
- Replacing a failing player who does not fulfil the game plan, makes many errors, who displays an unsportsmanlike behaviour or is upsetting the interpersonal relations among the players.
- Giving the reserve players a chance to play without risking the successful match result.

- Interrupting the game in order to give instructions to the team (through the substitute) or to break the rhythm of the game (instead of time-out).

The substitute must be warmed up, ready to play and must know his task (e.g., where to switch by the net, his role in the field defence). All reserve players are obliged to be in contact with the coach (or assistant coach) in order to act on his tips at once. The substitute passes on information from the coach to the team.

The coach (assistant coach or anybody supporting the team, including reserve players) makes notes about the match to help him determine the causes of the last defeat or success. The evaluation should be objective, critical and consist of the following points.

- Success of the game plan and its positive and negative qualities.
- Fulfilling a part of the game plan with each player and the whole team.
- Evaluation of the players' performance and behaviour during the match.
- Conclusions for training or following competitions.
- The use of statistical game analysis makes objectivity of evaluation possible. The data about the player's actions (quantity and quality) in the game could be collected by special observers, the assistant coach or by players on the bench. Data can be obtained by analysis of films or video recordings after the match too.

All this information must be correctly interpreted and completed using the coach's commentary and intuition.

A useful source of information is the international score sheet. The coach should be familiar with the data and method of score sheet recording. A simple programme on a personal computer can create the data as score-flow with the "best" and the "worst" line-up (meaning a line-up where we lost or gained maximum points) and how many points were scored by each rotation (player on serve), etc.

The coach should call a meeting, in a quiet place, of the entire team after the match. He must have results and interpretations of the statistical game analysis available. It is not good to discuss the match directly after the game. The players should have a clear picture of the game and objective data ready. Nevertheless, immediately after the game, the coach should say a few words to keep the team "on the ground" after victory, and if they have lost, to remind the players that they are "not as bad" as they feel.

The most advantageous time for organising such post game meetings may be the next training session after the match (combined with relaxation). The players should speak first and express their opinion about the match. The coach gives his interpretation later and concludes with

the main reasons for victory or defeat. At the end of the meeting, the resulting conclusions should be specified for training and the next match. (Notes prepared in advance by the players as well as by the coach and assistants are very useful.)

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