A SAND VOLLEYBALL INSTRUCTION MANUAL

A Project

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by

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Department of Kinesiology
Abstract

of

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by

Armen Aleksonis Zakarian

Statement of Problem
The purpose of this project will be to provide a functional example of a sand volleyball instruction manual that offers a methodical and didactical approach to the learning and teaching of sand volleyball skills and movements. It will focus on current research, as well as practical applications for coaches and teachers.

Sources of Data
The sources of material for this project include journal articles, educational books, web sites, and drill-manuals created by experienced researchers, players and coaches in the sand volleyball realm.

Conclusions Reached
Sand volleyball popularity growth has sparked a need for new educational tools for development. Practitioners are challenged with a number of issues when teaching or coaching sand volleyball. Some of these issues involve incorporating the physical
demands of sand volleyball into everyday training, designing efficient and effective warm-ups, and teaching sand volleyball skills in a practice environment that will allow for efficient transfer to game like situations through the use of sound motor learning principles. Many coaches need a better understanding of the knowledge behind these issues to help get the most out of practice and training sessions for this growing sport.

_______________________, Committee Chair
Maureen Smith, Ph.D.

__________________________
Date
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Lastly, to my late grandmother Zabel, I want you to know that I will do my best to continue our family and cultural traditions, and give selfless love and support to those around me, just as I watched you do my entire life. I love you.
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CHAPTER 1

Introduction

Since its origination in the early 1920’s, the game of sand volleyball has made a significant impact on the world of sports (Homberg & Papageorgiou, 1994). Modified from the indoor sport of volleyball (created in 1895 by William Morgan), sand volleyball is a physically demanding and mentally challenging game played outdoors, and is a growing sport both domestically and worldwide. In the United States it has grown from a recreational sport to a professional sport, which has already surpassed the indoor game with regard to spectator popularity. In recent years, a number of sports have also shifted to the sand surface (soccer, handball, and volleyball.)

Popularity of sand volleyball is evident, as it has been included in every Olympic program since its inception in the Atlanta Olympic Games in 1996. This growth in popularity can be contributed to the fact that sand volleyball has seen migration from mainly coastal regions to all parts of the country. According to the American Volleyball Coaches Association (AVCA), sand volleyball participation has grown by over 25% since 2009, with over 300,000 girls under the age of 18 participating across the country (http://www.avca.org/sand). The Amateur Athletic Union (AAU), which has hosted sand volleyball tournaments since 1957, recently created a junior sand volleyball tour that now hosts over 30 tour stops in 8 different states (http://www.aaubeach.org/). The USA Junior Sand Volleyball Tour, sponsored by USA Volleyball, is available for athletes’ ages 10-20 years. The tour spans to 14 different states, with 25+ stops, and is open to all youth athletes.
With participation of sand volleyball steadily increasing at the grassroots levels, the NCAA in 2009 voted to recognize sand volleyball on its list of emerging sports for women, with more and more athletes are taking to the sand and trying the more physically demanding game. 16 programs will field varsity teams in 2011-12, with 5 of the programs already offering scholarships. The AVCA’s web site contains many links to articles, rules and legislation, as well as events pertaining to sand volleyball (www.avca.org).

For most indoor volleyball players, transitioning to the sand game provides many opportunities for improvement. According to Kiraly & Shewman (1999), “it’s easier to take your outdoor skills into the gym than to bring your indoor skills outside” (p.13). The indoor game of volleyball utilizes several specific positions for the 6 players on the court (outside hitter, setter, middle blocker, libero), all of which require each player to possess specific characteristics for that exact position.

Because of its two versus two structure, sand volleyball requires increased proficiency in each of the six basic elements of volleyball – passing, setting, attacking, serving, blocking, and floor defense. This need for general skill knowledge all but eliminates specialization, as players are performing all skills on a more regular basis. Learning to play the sand volleyball game in the early stage of volleyball skill acquisition seems to be a logical starting point for players who are interested in being well rounded in the fundamental skills.

With the amount of growth associated with sand volleyball, there are few educational tools that address the sport specifically. On the contrary, there are several
educational tools and resources for the indoor game of volleyball, and they are constantly being revisited and renovated.

**Statement of Purpose**

The purpose of this project will be to provide an instructional manual that offers guidance on teaching sand volleyball skills with a methodical and didactical approach. It will focus on current research and practical applications for coaches and teachers. The manual will include skill-centered drills on each of the six fundamental skills, a section on effective warm-up drills, as well as a section of game-centered drills covering game like situations.

**Significance of the Project**

The need for an instructional manual, based on scientific research, specifically applied to teaching sand volleyball continues to exist. Much of the information available to coaches does not incorporate fundamental skills training specific to sand volleyball. This coaching manual will paint a complete picture for coaches and instructors interested in the “why” behind skills training and drill implementation.

**Definition of Terms**

1 v 1, 2 v 2, 3 v 3, 4 v 4, so on. The amount of players playing against each other in a game.

**Antenna.** A boundary marker that determines the boundaries of the court on the net.

**Back-spin.** When the volleyball is given a backward rotating spin.
**Block.** An attempt by one player to stop the ball at the net, in the air. The player has jumped at the net attempting to stop an opponent’s attack with extended arms.

**Bump pass.** Also called an underhand pass or a pass. It involves the technique of playing the ball with the forearms with the hands together.

**Bump set.** The act of playing the ball with the forearms and hands together to set up an attack or 3rd contact.

**Carry.** A carry is a fault called by the referee. It is called if a player causes the ball to come to rest.

**Sand Court.** An area divided into two equal halves by a net. It is 16 meters (52 ft, 0.5 inches) long and eight meters (26 feet, .25 inches) wide. The net is 2.24 m (7 feet, 4.125 inches) high for women and 2.43 m (7 feet, 11 inches) for men.

**Cover.** Playing defense around the hitter so that if the ball is blocked by the opponent, the covering player will be able to play it up.

**Dig.** A ball played up by the defensive player. Usually it is from an attacked ball. Past tense is also used (i.e. – the setter will set the dug ball).

**Dink.** A short shot by an attacker.

**Double Contact.** A fault in which the ball has hit the player twice in an attempt to forearm or overhead pass.

**Emergency Technique.** This usually refers to a defensive move that involves a dive, roll or sprawl.

**Endline.** The base line or boundary marker that runs parallel to the net, at the end of the court.
**Float serve.** A ball that moves like a knuckle ball in the air. It does not have spin.

**Forearm pass.** A technique for playing a ball using the forearms with the hands together. Also called a bump or a pass.

**Hit.** The act of playing the ball into the opponent’s court. Also known as a spike or an attack.

**Hitter.** Attacker, spiker, etc.

**Joust.** A simultaneous confrontation between a hitter and a blocker directly above the net.

**Kill.** An attacked ball that results in the end of a rally giving the attacking team a side out or point.

**Lift.** A fault called by the referee. The ball has come to rest or played with a sloppy contact where the ball did not quickly rebound off of the player.

**Out of bounds.** A ball is out of bounds when it lands outside of the court. Should it touch the line it is considered good or in. If it touches an antenna it is out of bounds.

**Pass.** A ball played with the forearms. Also called a bump or underhand pass.

**Rally.** The exchange between two teams, initiated with a serve and resulting in a point or side out.

**Rally score.** A scoring system that gives a point to the team that has won the rally. In this system a point is scored on every rally.

**Run through.** Playing the ball with the forearms (digging or passing the ball) while moving or on the run.

**Serve.** The act of putting the ball into play.
Set. The second contact of the three offensive contacts allowed, usually to set up an attack on the third contact.

Shag. Collect or pick up the volleyballs.

Shank. A ball passed so poorly that no other team members can get to it. It results in an automatic point for the serving team.

Shot or Soft-shot. An attack that is not hard driven.

Sideline. The side boundaries of the court.

Side out. The receiving team wins back the serve.

Topspin. Forward spin on a ball.

Scope of the Project

This project will be designed to provide motor learning based research to help guide the training of sand volleyball players and improve the level of skill acquisition and retention. The coaching manual will address the motor learning concerns pertaining to sand volleyball and incorporate different types of training methods that can be incorporated to skill acquisition.

The main limitation of this manual is that it is designed to provide instructional keys and cues for coaches and practitioners to follow, although many coaches may need to be better prepared to demonstrate and apply the keys and cues before moving on to teaching them. The best methods to improve skills are through proper and efficient skill demonstration.

Information gathered in this manual is derived from scholastic research journals, books, e-books, and educational websites. Although the intention for this manual is
based for sand volleyball coaches, the theories and research discussed is applicable to coaches for all sports requiring sound motor learning theory geared towards skill acquisition.
CHAPTER 2

Review Of Literature

Performance in sand volleyball is based on numerous factors, though most are related to physical, technical, psychological, or tactical factors. These performance factors are constantly monitored and improved during practice and competition. Because practice is a time where most skill acquisition will occur, practice sessions should be designed using an evidence-based pedagogical approach. Coaches and instructors wanting to develop their athletes should follow didactical approaches to instruction, regardless of the realm of skill or task acquisition.

A successful sand volleyball coach will need sound knowledge in sport pedagogy, more specifically in the principles of motor learning with regard to practice. This includes but is not limited to: the method of deliberate practice, pre-practice considerations (goal setting, modeling, and instruction), and conditions of practice (specificity of training, contextual interference, whole versus part training, and state-dependent learning). The sand volleyball instructor must also grasp the physical and physiological demands of the game, and have expert understanding of fundamental skills and drills that help facilitate learning.

Motor Learning

The discipline of motor learning is defined by Schmidt and Lee (2005) in their book “Motor Control and Learning: A Behavioral Emphasis” as the study of the acquisition and development of permanent changes in motor behaviors appropriate for different tasks and environments. Continued research in motor learning has led to the
identification of a number of evidence-based motor learning principles, which, when properly understood and applied, can have a significant impact on athletic development and achievement. Motor learning is complex and consists of three distinct stages: The cognitive stage (1) is when the learner creates a mental picture of the skill to be executed along with processing the visual, kinesthetic, and auditory cues needed for the skill. Performance during this initial stage is full of questions and errors as the learner attempts to get an idea of how to do the skill.

During the second stage, called the associative stage (2), the learner begins to understand how to do the skill, and “associates” the movement with environmental cues. This stage is sometimes called the refining stage since learners begin to narrow the motor response and identify and correct errors on their own.

The final stage of motor learning is termed the autonomous stage (3) since the performance of the skill is now automatic. At this stage the learned skill is now a habit, requiring little attention. In order to reach this highest level, many years of practice are needed, and not all performers will achieve this final stage.

For coaches, it is important to identify which stage a player is presently in, since different stages require different coaching skills. During the initial cognitive stage, appropriate and timely feedback is needed to help the novice performer understand how to do the skill and how to correct errors. The coach is providing lots of encouragement along with appropriate feedback during the cognitive stage. During the associative stage, the coach’s role shifts towards refining techniques. Within this stage, the coach waits and allows the player to identify his or her own performance errors and correction. While the
emphasis is on refinement, there are ample opportunities for practice to develop the consistency of the skill performance. Working with athletes in the final autonomous stage, the role of the coach again is different. Now emphasis is on developing strategies and tactics for using the skill in a variety of game situations. As coaches gain a complete understanding of each stage of learning, they will be better prepared to help each individual reach true learning potential. It is important to note however, that even with a thorough understanding of the stages of learning, a learner must engage in specific and deliberate practice for certain skills in order to develop the appropriate motor patterns for each skill.

**Deliberate Practice**

Ericsson, Krampe, and Tesch-Römer (1993), first coined the term “deliberate practice”, in their study of the acquisition of expert performance. The theory of deliberate practice challenged the idea that innate talent is the overlying factor that leads to expert performance. The Ericsson et al. theory is based on the assumption that the most beneficial form of training for acquiring sport skill involves activities that are highly relevant to performance improvement, effortful (either cognitively or physically) and performed for the purpose of improving current performance.

According to Ericsson et al. (1993) deliberate practice performance is carefully monitored to provide cues and feedback for improvement. “Deliberate practice requires effort and is not inherently enjoyable. Individuals are motivated to practice because practice improves performance” (p. 368).

Contrary to the theory of deliberate practice, the importance of play and
competition should not be overlooked. Ford, Ward, Hodges, & Williams (2009) examined early participation differences between two elite soccer groups: those who progressed to professional status at 16 years of age and those who did not. Participants were given a sport participation questionnaire and asked to list the number of hours spent performing different types of soccer activities (practice, play, competition, work, etc.). Results showed that elite players who went on to attain professional status accumulated more hours per year in soccer play activities, but not in soccer practice, competition or other sports, between six and 12 years of age, compared with those who did not progress. The two elite groups averaged more hours per year in soccer practice compared with recreational-level players, but not soccer play, competition or other sports. These findings suggest that in developmental stages, practice and play are both important for skill acquisition and expert status.

**Pre-practice Considerations**

Motor learning can be enhanced well before an individual is physically engaged in practice activity. This form of learning deals with the preparation of the learner for the upcoming practice sequence. Effective preparation takes place before the practice sequence begins, thus being identified as pre-practice activities. Certain pre-practice considerations include but are not limited to goal setting, instruction, and demonstration of the skill or task to be learned. An understanding of these pre-practice considerations is extremely important if one is to design an effective training program.

**Goal Setting.** Goal setting has become common practice among many coaches and athletes. It refers to when performers try to attain goals that are set before they begin
practicing. The days of “do your best” goal setting are all but over, with research indicating that specific, difficult goals produce better performance than either no goals or vague and ambiguous goals. Locke and Latham (1985) examined goal setting and its application with regard to motor learning. They reviewed several clinical and field studies and found that specific, difficult goals lead to better performance than vague or easy goals. They concluded that goals affect performance by affecting effort, persistence, and attention and by motivating strategy development.

**Instruction.** With regard to the learning process, instructions are a very common and powerful learning tool used to teach a new skill. One of the benefits of verbal instructions is to make the learner aware of certain components of the task before practice begins. Instructions can also provide useful and important information about the movement itself, such as the initial positions of the limbs in relation to the skill being learned, the stance, what to watch and listen for, and what to do (Schmidt & Lee, p. 327).

During practice sessions, effective instruction may be crucial to the pursuit of optimal sporting performance, as the more effective the instruction, the more the instructor’s role will benefit athlete performance. Effective instruction requires knowledge of implicit and explicit processes. *Implicit* processes concern the acquisition of the appropriate force-generation patterns that enable efficient movement production. *Explicit* processes are directed toward goal attainment and developing the appropriate mapping between the learner and the task (Hodges & Franks, 2002).

Hardy et al. (1996) compared the performance of an implicit learning group, a non-instructed control group and an explicit learning group in a golf-putting task. The
explicit learning group received specific instructions on how to putt a golf ball and were encouraged to follow them as specifically as possible. Results showed that the implicit learning group improved as a result of practice on the task itself, although they did not improve at the same rate as the explicit learning and control groups. Another interesting finding from this study was that under conditions of stress only, the implicit learning group continued to improve on the task. This indicates that instruction directed on performing the skill itself seems to be more beneficial than focusing on the outcome of the desired skill.

**Demonstration.** Motor learning studies have found that movement information is retained in the form of an image. Demonstrations (also known as modeling) allow the learner to directly observe the elements of the action to be performed. They can be given in various forms, including live observations, videotapes, or photos of expert as and learning models. In order for effective modeling to occur, the learner must “selectively attend to the relevant information, retain this information, have the capability for using this information and have the desire or motivation to imitate the behavior.” (Hodges & Franks, p. 796).

Horn, et al. (2007) compared the nature and rate of change in intra-limb coordination in participants who observed a video model with those who practiced based on verbal guidance alone (control). Sixteen participants were asked to throw a ball towards a target with maximal velocity using a backhanded, reverse baseball pitch. Both the model and control groups were given 18 total acquisition trials. The model group observed five consecutive demonstrations of the video model after initial verbal
instruction, as well as one demonstration after each of the first five acquisition trials. Participants from the model group immediately changed their movement patterns to more closely resemble the video model. Results showed that demonstrations may act as a rate enhancer, conveying an immediate movement solution that is adopted early in acquisition.

**Conditions of Practice**

In order to get the most out of a practice, instructors must understand how to incorporate motor-learning principles into practice design. Time is also a major factor when trying to teach an individual a motor skill. For effective practice sessions to occur, they must be organized in a way that maximizes the amount of potential learning, given the time constraints. Schmidt & Lee (2005) state that “to meet the demands of these time constraints, the instructor must be aware of certain variables, or conditions of practice, and how they influence performance and learning when used in certain situations” (p. 322). Research is beginning to find its way into the planning and training of programs and onto the courts during training or practice sessions. This research includes but is not limited to, specificity of training, state-dependent learning, contextual interference, whole vs. part instruction, and transfer of skill.

**Specificity of Training.** The idea of general athletic ability has stood for many years, although researchers like Franklin Henry, considered the father of motor learning science, first questioned this idea with his research on specificity of training in 1958. He hypothesized that “abilities are specific to the task or goal of the activity and not transferable” (Henry, 1958). Today a convincing body of scientific research now
indicates that the most important practice variable in terms of motor skill acquisition is practicing the criterion skill itself. We should attempt to match those conditions in acquisition practice specifically with those expected in the criterion “test” performance. If a baseball player is required to see and hit a moving ball, then practicing a swing off of a baseball tee would not be specific to training.

In order for an exercise to be considered specific, the following criteria should be met: [A] The exercise must duplicate the exact movement witnessed in a certain segment of the sports skill. [B] The exercise must involve the same type of muscular contraction as used in the skill execution. [C] The exercise must have the same range of motion as in the skill action. With the above-mentioned criteria, the best sport specific exercise by definition would be playing the sport itself.

**State Dependent Learning.** Research has shown that when a person learns something it becomes a part of memory. However, during the learning phase an individual will actually take in more than just the information on how to perform the skill. Other information like the mood of the learner and the surroundings of the environment are also stored in memory with that information. This is called state-dependent learning. According to McGown, et al. (2001) “performance is significantly better when the mood of the learner and the environment in which performance must occur matches the mood and environment in which learning occurred.” (p. 14).

For example, results gained from passing drills designed to improve accuracy may not necessarily change an individuals’ performance if the training isn’t performed under similar conditions that replicate a real match. Therefore, if training routines are to be
beneficial they must replicate the playing conditions as closely as possible. This is a great explanation for the so-called home court advantage in sports.

**Contextual Interference.** Shea and Morgan (1979) first demonstrated contextual interference (CI) for motor skill learning. In their study, participants had to learn three different versions of a barrier-knockdown task, with the order of barriers being different for each task. Practicing the tasks in a blocked order, in which all trials on one task were completed before the participant was switched to the next task (low CI), resulted in more effective performance during practice than did practicing the tasks in a random order (high CI). However, when learning was assessed in retention and transfer tests, the random-practice group demonstrated clearly superior performance to the blocked group.

The superiority of random practice has been substantiated for a large number of sports skills including volleyball, badminton, baseball, basketball, tennis, and soccer. Bortoli, Robazza, Durigon, and Carra (1992) tested the effects of CI in their study on high school physical education students learning three volleyball skills (volley, bump, serve). Participants were randomly assigned to one of four treatments (blocked, random, serial, and serial with very high interference) and given one volleyball lesson per week during a two month period (8 total). Results yielded significant differences among the random and serial groups on a transfer test for the serve.

**Whole vs. Part Training.** One of the main questions that concern coaches for all sports is whether or not to incorporate whole training or part-to-whole training when teaching skills. In order to employ the appropriate method of training, one must first break a skill down into its component parts and analyze the complexity and organization
of the skill. The complexity of the skill consists of the number of parts or components while the organization of the skill involves the relationship among the various parts (Grooms-Denny, 2010). For example, when teaching the spike in a whole training approach, one would incorporate the approach footwork and armwork, the jump, ball contact, and recovery. With a part training approach, the practitioner may focus solely on a part of the spike, such as ball contact. Volleyball skills are considered continuous tasks, meaning they have no recognizable beginning and end. With this information, it is unclear whether practitioners can successfully teach continuous tasks by "breaking them down" into parts. Therefore, when teaching sand volleyball skills it is recommended that one uses a whole training approach.

**Game Analysis of Sand Volleyball**

Game analysis of sport is a very important tool for practitioners. In order to design effective practices and teach the necessary skills, one must understand the movements and skills of the game that are most frequently utilized. Most approaches to systematic analysis of sport games rely on notational data often related to video systems (Hughes & Franks, 2004). Generally, single actions are assessed (pass, set, spike, serve, block, and defense) and mapped to result variables (winning or losing a point) to represent the most important aspects of the game. These analyses result in valuable information about the strengths and weaknesses of athletes or teams.

**Physical Demands of the Game.** One major study of sand volleyball in the past focused on the characteristics of the game (Homberg & Papageorgiou, 1994). The aim of the study was to obtain general knowledge about the applied techniques and physical
demands (e.g. number of executed jumps, sprints) of athletes on the German professional circuit. The study also looked at time structure of the game like recovery time between rallies, match duration, and so on.

It was found that during one hour of net playing time for German top level players, the players executed an average of 85 jumps, 234 starts (movements forward, lateral, or backward), and covers 772 meters of overall running distance (p.35). On average, the athletes jumped every 42 seconds, and started a running action every 15.4 seconds. They also found that one rally lasted about 7.5 seconds on the US-pro level circuit. While these findings shed light on the demands of the game, the research was conducted prior to the introduction of the current “rally” scoring system used in today’s sand volleyball matches. The new scoring system contains two 21-point sets, with a potential third set played to 15 points, all without needing to have service to score a point.

Another study conducted by Perez-Turpin, Cortell-Tormo, Suarez-Llorca, Chinchilla-Mira, and Cejuela-Anta (2009) compared gross movement patterns and types of motions of 10 professional women’s sand volleyball athletes. Movement definitions were labeled as offensive (attack shot, approach to attack, and spike attack) and defensive (reception, block, and defense). Movement patterns were examined with players relation to the net. Forward movements were labeled as “advance” with left and right movements labeled as “lateral” and backwards movements labeled as “posterior”.

Results of the analysis showed the observed athletes used offensive actions more frequently (59% of all actions) when compared with defensive movements (41%). Of the defensive action patterns, 24% were receptions, 29% were defensive plays, and 47%
were blocks. Offensive movement actions were dominated by attack shots (50% of all total offensive patterns), with 34% being spike attacks, and 16% of all patterns being approach to attacks. Perez-Turpin et al. also found the frequency of types of movements to be dominated by forward advances (62%). Lateral movements were performed 14% of the time, and posterior movements performed with 13% frequency.

Cortell-Tormo, Perez-Turpin, Chinchilla, Cejuela, & Suarez (2011) conducted a similar study on European professional men’s sand volleyball athletes. Again, the researchers analyzed frequency of offensive and defensive actions, as well as gross movement patterns of 10 players from the European Beach Volleyball Championships in Valencia, Spain.

Results of the analysis showed that the observed athletes used more offensive movement actions then defensive (O = 1,048; D = 949). Again, advances dominated the observed gross movement patterns with lateral movements being second most observed, and posterior movements observed the least (A = 1,149; L = 761; P = 87).

Playing Characteristics. Koch and Tilp (2009a) examined the playing characteristics of male and female players in professional beach volleyball. The aim of the study was to analyze and compare movement patterns and direction of locomotion professional men’s beach volleyball. They examined the six basic elements of beach volleyball – serve, reception, setting, attack, block, and defense. Applied technique and quality of execution data were collected from all six elements.

With regard to applied technique, significant differences were found in serving technique. Women preferred float serves (48%) where as men performed primarily jump
serves (46%). Further differences were found with the setting element, with women using the overhead pass only 9% of the time, compared to 46% by men. They concluded tactical considerations and sex-specific differences in anthropometry and physiology may be reasons for the different approaches to the game. There were no significant differences found with quality of execution, indicating that although players used different techniques in nearly all the investigated elements, their execution quality remained high.

Another study performed by Koch & Tilp (2009b) aimed to investigate sequences of typical beach volleyball actions to determine action patterns and anticipate athlete’s behavior. More specifically, the authors looked to answer a few important questions: 1) Which type of serve induces difficulties or errors of the receiving team? 2) Which type of attack is favored following optimal settings from different positions? 3) Does the temporal position of an attack within a rally affect the attack technique and quality? 4) How does reception quality influence the following attack?

Results indicated the following: 1) There was no significant serve technique detected. Jump serves, jump floats, and float serves all created difficulties or errors for the receiving team. 2) Analysis of setting position and attack type showed no significant differences. 3) More than half the attack during the initial rally led to a direct point (55%). The highest attack efficiency occurred after the initial pass-set-spike from service. Serving teams who successfully dug an opponent’s spike were able to score a point on their counter-attack 65% of the time. 4) The analysis of reception quality showed that athletes preferred harder attacks on passes that were rated “good”, but not “perfect” or “bad” receptions.
The above analyses are a great help to practitioners as they help to discover the physical workload in sand volleyball, dominant movement patterns observed by sand volleyball players, as well as which skills most correlate to winning in competition. This in turn will lead to a significant improvement in the preparation of training programs for sand volleyball players.

**Coaching Resources**

**General Coaching Drills.** One of the original publications for teaching volleyball, *Coaching Volleyball*, by Carl McGowan (1997) is a master resource for coaches and students of the game. The book explains the principles of motor learning, and contains sections on each of the skills of the game, as well as designing offensive and defensive systems for the indoor sport. One of the main advantages of the book is that it contains a great list of keys and cues for teaching each skill, and also offers great illustrations and examples of what each key looks like when performed correctly.

There are many excellent general training resources for sand volleyball. One popular resource is the FIVB Beach Volleyball Drill-book (Jones & Dalanhese, 2011). The drill-book was created through the FIVB’s technical development department, and includes drills that cover each basic skill in volleyball, as well as warm-up drills and modified game drills. This is an excellent resource for coaches at every level of sand volleyball development, and contains the drill template that will be used for this manual. Each drill within the manual explains necessary equipment and participants needed for a drill, the purpose and description for a drill, as well as modifications and teaching points for a drill. One of the disadvantages of the drill book is that it does not offer a
mechanical foundation for teaching skills through the use of keys and cues.

Another great resource, *Beach Volleyball*, written by Kiraly & Shewman (1999) covers all of the elements of the game including skills, training, and game-play. The author, Karch Kiraly, is considered to be one of the greatest volleyball players of all time. His book provides a great base for sand volleyball enthusiasts who are interested in the history of sand volleyball, and want to gain a better understanding of the skills required to play, as well as the training necessary to be a great sand volleyball player. One of the limitations of this book is that it was published before the implementation of several rules that have greatly influenced the game of sand volleyball, most notably the change in scoring system and reduction of court size.

Homberg & Papageorgiou, in 1994, created the *Handbook for Beach Volleyball*. This book was recommended by the FIVB as an excellent sand volleyball resource when first published. The purpose of the book was to enable players, coaches, and teachers to become familiar with the introductory level and the basics of the game, as well as tactics and strategy for higher levels of play. The main limitation with this book is that the authors assumed that those reading the book were already familiar with the game of volleyball and had a good foundation on how to learn the basic skills. The book contains mostly strategy and tactical considerations for the game, skipping the parts necessary to teach the basic skills needed to perform those strategies and tactics.

*Coaching Volleyball* is the official magazine of the American Volleyball Coaches Association (AVCA) and is published six times a year. The magazine is written almost exclusively for indoor and sand volleyball coaches. Within the magazine are scholarly
articles and drills for all levels of play, as well as updates on the state of the indoor and sand game at all levels of competition (high school, club, professional, national, etc…).  

**Summary**

In this review of literature regarding topics related to sand volleyball and motor learning, it is clear that significant amounts of research have been conducted in many areas of the game of sand volleyball. It is also evident that less is known about the teaching of sand volleyball basic skills, though there are some approaches that do not apply sound motor learning theory. Coaches need to be aware of the need for methodical approaches to learning skills and the gains that can result from incorporating sound motor learning theory. There remains a need for a coaching manual that addresses motor learning principles before and during practice, and uses scientific literature to help guide coaches and practitioners through basic skills and tactics for the game of sand volleyball.
CHAPTER 3

Methodology

The training methodologies and selection of drills in this manual will be based on a thorough review of current research as well as information from well-regarded resources written by noted authorities in the game. Resources will include journal articles, books, online articles, magazines, as well as nationally and internationally accredited drill manuals.

Information in this manual will be directed towards sand volleyball coaches and instructors who teach at every level (beginner, intermediate, and advanced training) as a guide to help teach sand volleyball skills.

The coaching manual will focus on past and current research regarding motor learning principles applied to effective practice design sport and sand volleyball skill instruction in several specific areas: passing, setting, attacking, serving, blocking, and defense. The manual will be designed for use to help plan practice and training sessions for a variety of class sizes ranging from 1 player to 10+ players.

Each section of the manual will include an introduction to the skill or section being covered, followed by major concepts associated with the skill/section. Once concepts have been discussed, teaching keys will be implemented to explain how to break down feedback for the learning of each skill. Teaching keys will be followed with explanations as to why each key is in place. This will help coaches and players gain a better understanding of what is taking place during each key/cue. Finally, any common problem areas that coaches may face for the skill/section will be discussed, followed by specific drills for that section.
The following is an outline of the chapters found within the instruction manual.

Each section within the chapter is bulleted underneath the chapter title.

**Sand Volleyball Instruction Manual**

1. Introduction

2. Serving
   - Intro to serving
   - Concepts of serving
   - Keys to serving
   - Behind the science of serving keys
   - Common problem areas for teaching the serve
   - Drills for teaching the serve

3. Forearm Passing
   - Intro to forearm passing
   - Concepts of forearm passing
   - Keys to forearm passing
   - Behind the science of forearm passing keys
   - Common problem areas for teaching the forearm pass
   - Drills for teaching the forearm pass

4. Overhead Passing
   - Intro to overhead passing
   - Concepts of overhead passing
   - Keys to overhead passing
26

- Behind the science of overhead passing keys
- Common problem areas for teaching the serve
- Drills for teaching the overhead pass

5 Attacking
- Intro to serving
- Concepts of serving
- Keys to serving
- Behind the Science to serving keys
- Common problem areas for teaching the serve
- Drills for teaching the attack

6 Block & Defense behind
- Intro to block & defense
- Concepts of block & defense
- Keys to block & defense
- Keys to emergency defense skills
- Behind the science of block & defense keys
- Common problem areas for teaching blocking & defense
- Drills for teaching the block & defense behind

7 Effective Warm-Up Drills

8 Game-specific Drills
Introduction

Welcome to the sand volleyball drill manual. With the popularity of sand volleyball increasing at almost every level, it is important to stay up to date with research on learning and teaching the skills of sand volleyball. This manual is designed to help coaches and teachers implement those skills with their athletes. In most sports, learning occurs during practice sessions where coaches have a specific amount of time with players. With this in mind, it is important to organize with the correct skill drills that will help facilitate skill acquisition.

Designing effective drills is no easy task for any coach. In order to be effective with instruction, one must first gauge the level of play of the student or athlete learning the skills and then be able to design drills with certain constraints such as time and available equipment in mind. The practitioner or coach must have an excellent understanding of what he/she is looking for when teaching skills in order to implement drills that will allow proper feedback for each skill, and to ensure that the drills run smoothly.

Before one teaches a skill or drill, it is important to understand the best and most efficient way of doing so. You need a method of teaching that has been proven to be successful and one that will have the most retention value. Research has found that the best way to teach a skill is by doing the following:

- Using a correct example in a demonstration (putting an image in player’s minds)
● Having players practice that skill and giving appropriate feedback using keys and chunked teaching points.

● Practicing the skill in a very simplified drill with many repetitions (blocked practice with low contextual interference).

● Putting the skill in a game-like situation where it is repeated many times, but with other skills involved (random practice with high contextual interference).

By implementing this simple approach to skill acquisition, you are providing your athletes and students a sound method for learning.

The purpose of this manual is to provide a framework for teaching sand volleyball skills through the use of motor learning principles, and ultimately to provide drills that will allow the coach to give specific and meaningful feedback to each athlete. The manual is designed to help those who are looking to learn how to teach sand volleyball skills, or looking to learn themselves.

**Manual Breakdown**

The sand volleyball drill manual includes an introduction to the manual, with the body of the manual broken down into seven parts. The first five sections cover the basic skills in sand volleyball: Serving, passing, setting, attacking, and block plus defense behind. Section six covers warm-up drills that allow for skill specific progressions to get ready for practice, with section seven going over drills that provide game-like situations seen in sand volleyball.
Section Breakdown

Section 1: Introduction of the skill. This section uncovers the primary function of the individual skill. It describes the skill importance, and how is it used within the game of sand volleyball.

Section 2: Concepts of the skill within the game setting. This section covers the principles and ideas that allow the individual to simplify the skill. It provides useful information on how athletes should progress when learning the skill, and ultimately to better understand the skill within the big picture of the game.

Section 3: Keys to teaching the skill. This section breaks down the particular skill into parts. The amount of information given to the learner is reduced or “chunked” into keys. This allows the practitioner to focus feedback on specific parts of the skill being learned within each drill.

Section 4: Behind the Science (WHY?) to the skill. This section covers the big question for each skill and key. Why teach or learn it this way? Within this section you will find brief explanations as to why a particular key is being taught and how it will help.

Section 5: Drills for the skill. The fifth and final section within chapters 1-5 includes drills that are specific to the learning of the particular skill within that chapter. Each and every drill is listed on a drill template that is easy to follow.

Drill Template Breakdown

Drill Details. The name of the drill, what equipment is necessary, and how many participants are needed for the drill to run.
**Purpose.** Why are you doing the drill? Prior to implementing a drill, participants should have an understanding as to what the focus is for that particular drill.

**Description/Directions.** How will the drill be executed? What is the goal for the drill? How many repetitions before one rotates to a new position?

** Modifications.** Ways that the drill can be modified to decrease or increase difficulty for participants.

**Teaching Points/Keys.** Where should feedback be directed within the drill? This section identifies the particular keys and/or teaching points that should be the focus of the drill.

**Drill Diagram.** The last portion of the template is simply a visual diagram of the drill and how it works.
Drill Key

- Direction of player movement within a drill
- Indicates movement of the ball within the drill
- Indicates the movement of an athlete playing a ball

● Indicates a player involved in play (may also be in the form of a letter)
  - A = Attacker
  - B = Blocker
  - S = Setter
  - P = Passer
  - D = Defender
  - X = Athlete waiting off the court
  - C = Coach

[C] Indicates a coach standing on a box

▲ Indicates a coach running the drill or giving feedback

į Indicates a cone or marker on the ground
Chapter 1: Serving

The serve precedes each rally in the game of volleyball, making it one of the most important skills to master. The serve is the only “closed-skill” in volleyball, meaning that it is a skill performed in a stable or largely predictable environmental setting. The movement patterns for closed skills can be planned in advance. Examples of closed skills in other sports are a baseball pitch, a basketball free throw shot, or a discuss throw. All of the remaining skills in volleyball are open-skills (skills in which the environment is constantly and unpredictably changing).

Because we know that the serve is the only time when you have complete control over the present point (the ball begins in your hand) it is important to master the serve to be able to consistently put pressure on your opponents and increase your scoring opportunities. This cannot be done by simply allowing a server to serve 100 straight balls with the hopes of mastering the serve through repetition. There must be “mindful” practice while learning the serve. An athlete must receive and internalize feedback after each and every individual serve in order to make meaningful improvements. Below are some important guidelines to follow in order to train a successful and mindful server.

Serving Concepts

- Develop accuracy, then velocity. Because there are only two players on a sand volleyball court, it is important to develop accuracy of the serve as the server has the choice of which opponent will attack based on where the ball is served. If there is a weaker attacker between the two opposing players, the serving team should exploit the situation by serving the ball to
the weaker attacker. As you develop accuracy and consistency, you can continue to work on the velocity (speed) of the serve, as this will force more poor passes, and ultimately lead to more aces, which is the fastest and most efficient way to score a point.

- **Have a plan!** An athlete must never just serve and server without a precise target in mind. Having a planned serve will allow the athlete to correlate a serve attempt with a serve result, thus allowing them to internalize feedback and correct mistakes. A planned serve also allows the athlete to exploit opponent weaknesses.

- **Develop a routine.** A routine should consist of assessment of match conditions. Who am I serving, how am I serving the ball (jump float, spin?), what is the wind going to do to the ball? What is the score? Is it a close game, should I take risk and go for it or should I keep the ball in play and serve smart? These are all questions a server should ask before attempting the serve.

- **Develop a ritual.** The ritual is a movement pattern or sequence that should precede each and every serve. This helps the athlete train the subconscious to perform under pressure, fatigue, during the first point, or game point.

There are several types of serves ranging in difficulty, but all should be practiced and mastered so that they may be used in the necessary situation. The main concept for servers to understand is to force the opposing team to have to move to pass a ball each and every time.
Standing Float Serve

The float serve is a very common serve and is used by a majority of players on the sand, from novice to high level. The float serve should be hit hard and fast and ideally contain no spin so that it may move around in the air after the ball has been contacted. This movement can create problems for opponents in serve reception, especially with increased wind conditions.

Keys to the Standing Float Serve

1 Ready Position & Posture
   - Ball in non-hitting hand
   - Hitting shoulder up and back (this should open up the body to allow for eventual torque)

2 Toss in front of hitting shoulder
   - Athletes should place the ball in front, a few feet above the head and in front of their hitting hand rather than the center of the body (for right-handers). This will assist with correct arm-swing motion to the ball.

3 Step and swing through to target
   - It is important to place the ball forward and step with the lead leg (left leg for right-handers, right leg for left-handers) as this will assist with shoulder rotation to the tossed ball.
   - Shoulder rotation is around a vertical axis with a 3-part pattern of 1 – hip turn; 2 – opposite arm pulled down; 3 – hitting shoulder through to ball contact
4 Solid hand through center of ball
   ● Athletes should make sure to contact with the palm of the hand (not
     fingers) and avoid breaking the wrist on the ball. Breaking the wrist or
     snapping on the ball will create unwanted spin on the served ball.
   ● Athletes should also focus on hitting the ball’s center.

Jump Float Serve

The jump float serve is similar to the standing float with the exception that the
athlete is now contacting the ball after having jumped in the air. This is a more advanced
serve than the standing float, mainly because the athlete must now incorporate a footwork
pattern and jump to the tossed ball. The advantages to this serve are that the athlete is
contacting the ball at a higher contact point than from the ground. This allows the ball to
travel with a more flat trajectory than from a standing position.

Keys to the Jump Float Serve

1 Ready Position & Posture
   ● Ball in 2 hands (2 hands allows for a controlled toss)
   ● Elbows bent, not straight (bent elbows will also assist with control)

2 3 or 4 step approach
   ● 3 step (L, R, L – for right handers, with toss after 1st step)
   ● 4 step (R, L, R, L – for right handers, with toss after 2nd step)
   ● After the toss, be sure that the athletes bring both arms up, with the
     hitting elbow up and back.
3  Non-Hitting hand high, hitting arm up and back
   • Be sure that the athletes bring both hands up immediately after the
toss. The tendency will be to bring the arms down and back to attempt
an armswing, but this motion is too complex and does not assist
timing.

4  Solid Hand through to Target
   • Have athletes contact the middle of the ball with the middle of the
hand.
   • Drive through the center of the ball

Jump Spin Serve

The jump spin serve is essentially a 30-foot spike from the service line in which the
serving player tosses the ball high and forward and then uses an approach and jump to
spike the ball across the net. This serve type generates the most speed on ball contact as
the serving player will snap the wrist over the top of the ball to create a top-spin which will
allow the ball to start descending into the opponent’s court quickly once it crosses the net.

Keys to the Jump Spin Serve

1  Ready Position & Posture
   • Ball in hitting hand (or non-hitting hand; should be to athlete’s
comfortability)
   • Regular stance with shoulders square to the net.

2  4-step approach (R, L, R, L for right-handed hitters)
   • Step and toss (after 1st step)
● Toss high and forward, slightly into the court about 1-2 feet.
● Footwork pattern is small steps to big steps, and slow steps to fast steps.
● Athletes should finish with both feet underneath waist and close together in a loaded position (knees slightly bent, ready to explode to ball).

3  Arms swing down, back, and up together
   ● After the toss, both hands go down towards hips, then back (parallel with the sand), and finally up towards the ball. This will assist with momentum to the ball.

4  Hitting elbow up, hitting arm up and back
   ● After both hands are up, it is important to keep the non-hitting hand high and straight, and load the hitting hand by bringing the arm up and back. There should be a bend in the hitting elbow to allow for eventual extension of the hand to the ball.

5  Reach high and snap to target
   ● Contact should be in the center of the ball with the middle of the hand. Wrist should snap after solid contact has been made on the ball. This will give the ball the desired topspin.

**Behind the Science of Serving**

There are many different serve types, so this section will explain the why’s of the important concepts of the overall serve, rather than each specific serve.
1 Ready Position & Posture
   ● This refers to the athlete’s position positioning just before contacting the ball. Elbow should be up and back so that the athlete is ready to hit the ball. This should be the same for the standing float, jump float, and jump spin serve.

2 Toss in front of hitting shoulder
   ● When athletes toss in front of the hitting shoulder, they are simplifying the timing factor of playing the ball, and ultimately decreasing decision-making. This should be the same for the standing float, jump float, and jump spin serve.

3 Approach-work and Arm-work
   ● For jump-spin and float servers, footwork and arm-work are important as they allow the athletes to generate momentum and speed before contacting the ball. This will help the athlete jump high and assist with timing.

4 Swing through to target
   ● Because serving accuracy is extremely important in sand volleyball, athletes should be reminded to always take their arm in the direction of the desired target. This will allow for more direct power through the center of the ball, and will ultimately control the direction of the serve. This holds true for all serve types.
Common Problem Areas with the serve

1. When learning the serve, athletes will want make a huge motion to toss the ball, mainly because they think that a high toss will allow more time to develop power. A high toss with lots of motion does not help the athlete increase repeatability, and only increases variance. The toss for any serve type should be precise and simple, so that there is less decision making on the part of the athlete. Power is generate through proper torque on the ball, not with a huge tossing motion. The single exception to the precise toss would be the jump spin serve. In this case, the toss should be higher (but still in a desired area in front of hitting shoulder) to allow the athlete time to use an approach and arm-work to get up and attack the ball.

2. When placing or tossing the ball, athletes will tend to toss over the center of the body or to the non-hitting shoulder. Be sure to reinforce the correct placement of the toss. By tossing over the hitting shoulder, athletes will be able to open up and swing through the center of the ball with more force, as the hitting shoulder and arm going through the ball will create more leverage with which to swing.
Figure 1-1. Serving - Perfect Practice Drill

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 2 balls</td>
<td>1 Athletes should be working on specific serving keys in an effort to improve their serving.</td>
</tr>
<tr>
<td>Minimum: One ball</td>
<td>2 Encourage athletes to practice their serve routine and ritual.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 2 athletes, 1 on either side of net</td>
<td></td>
</tr>
<tr>
<td>Maximum: 4 groups of 2 athletes</td>
<td></td>
</tr>
<tr>
<td>Minimum: 1 athlete + coach assisting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>PURPOSE:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this drill is to practice specific keys of any type of serve. The drill works on serve technique and allows for high repetition and feedback.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>DESCRIPTION/DIRECTIONS:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Two athletes begin by standing opposite each other on both sides of the net. In this drill, simply have the athletes serve back and forth with their partner.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MODIFICATIONS:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>● Have beginner’s start closer to the net to allow more success.</td>
<td></td>
</tr>
<tr>
<td>● Have athletes stand cross-court.</td>
<td></td>
</tr>
<tr>
<td>● After 5 successful serve and catches, have athletes move back and repeat.</td>
<td></td>
</tr>
</tbody>
</table>
### Equipment:
Ideal: As many balls as possible  
Minimum: 4 balls

### Participants:
Ideal: 2 athletes per side + coach observing  
Maximum: 8 athletes per side + coach observing  
Minimum: 1 athlete + coach assisting

### Purpose:
The purpose of this drill is to practice serving in a game situation. This drill works on serve technique and post-serve movement into the court. Athletes can practice any specified skill determined by the coach once in the court.

### Description/Directives:
Athlete (A) serves and then moves quickly into defense or blocking position to make a play. Depending on the athlete’s skill level, position, and area requiring improvement, the coach may decide on the movement that is to be practice after the serve.
- Running to the net to block a ball hit by coach.
- Running to the net, and then retreating to defend a high ball.
- Running into defensive position to dig a ball, or run a shot down.

### Modifications:
- Have athletes jump serve.
- Mark out spots on the court that need to be served to into.
- Have athletes serve 3 in a row.

### Teaching Points/Keys:
1. Athletes should be working on specific serving keys and targets in an effort to improve their serving.
2. Encourage athletes to practice their serve routine.
3. Athletes should move quickly to the spot to make the specified play.
### Equipment:

**Ideal:** As many balls as possible  
**Minimum:** 5 balls

### Participants:

**Ideal:** 4 athletes per side + coach observing  
**Maximum:** 6 athletes per side + coach observing  
**Minimum:** 1 athlete + coach observing

### PURPOSE:

The purpose of this drill is to practice deep court serving. This drill works on serve technique and pushing the opposing team back into the court. Additionally, it allows the serving athlete to get a feel for wind conditions and how they can help the ball travel a significant distance.

### DESCRIPTION/DIRECTIONS:

Draw a line 3 feet from the baseline (or use cones for visibility) then have athletes practice serving deep.  
Athletes should serve several balls in a row to get a feel for the parameters of the deep serve, and what the wind will do to the ball.  
Once athletes have have a better understanding, they may progress to the serve and run into the court.

### MODIFICATIONS:

- Have athletes practice all serve types.  
- Athletes should serve from both sides of the net.  
- Have athletes practice the short serve as well (line drawn 3 ft. from net).

### TEACHING POINTS/KEYS:

1. Athletes should be working on specific serving keys and targets in an effort to improve their serving.  
2. Athletes should be aware of the arc of the ball and attempt to serve high in order to push the passer back.  
3. Have athletes focus on consistent ball contact to better understand what distance is required to place the serve in the desired spot.
Figure 1-4. Serving - Five Zone Serving

**Equipment:**
Ideal: As many balls as possible  
Minimum: 4 balls

**Participants:**
Ideal: 2 athletes per side + coach observing  
Maximum: 8 athletes per side + coach observing  
Minimum: 1 athlete + coach assisting

**Purpose:**
The purpose of this drill is to reinforce the concept of making the opposing passers move to play the serve. This drill works on serve technique into specific serving zones.

**Description/Directions:**
After marking out areas of the court (short line, short angle, deep line, deep angle, and deep middle) using cones, mats, or drawn lines in the sand, an athlete will serve 10 balls.  
Coach or athlete will keep track of serves using the following scoring method:  
- Inside target: 2 points  
- Inside court, no target: 0 points  
- Missed serve: -1 point  
After 10 balls, athlete may receive feedback and then repeat, attempting to beat the previous score.

**Modifications:**
- Have athletes practice all serve types.  
- With more than one athlete, have groups of athletes compete for the highest score out of 10 serves.

**Teaching Points/Keys:**
1. Athletes should be working on specific serving keys and targets specified by coach in an effort to improve their serving.  
2. Encourage athletes to practice their serve routine and ritual.  
3. Athletes should adjust the serve toss relative to the wind (lower toss with more wind).
Figure 1-5. Serving - Split the passers

**Equipment:**
- Ideal: As many balls as possible
- Minimum: 3-4 balls, cones as markers

**Participants:**
- Ideal: 3 athletes per side + coach observing
- Maximum: 6 athletes per side + coach observing
- Minimum: 1 athlete + coach observing

**PURPOSE:**
The purpose of this drill is to practice serving the middle of the court, between the two opposing passers. This area causes the most confusion between passers as it forces decision making between the two receiving players. With wind, this serve type can be very effective.

**DESCRIPTION/DIRECTIONS:**
A server on one side attempts to serve a ball directly down the middle of the court. Using the wind, the server should attempt to serve the inside shoulder of a passer with the intention of using the wind to draw the ball back across to the other passer and cause confusion. With 3 players, have the non-servers practicing receiving the serve, but be sure to not have them cheat in to the middle to prevent potential ace opportunities for the server.

**MODIFICATIONS:**
- Have athletes practice serving with side spin to enhance the side to side movement of the ball.
- Athletes should serve from both sides of the net.
- Have athletes practice the short serve as well (line drawn 3 ft. from net).

**TEACHING POINTS/KEYS:**
1. Athletes should be working on specific serving keys and targets in an effort to improve their serving.
2. Athletes should be aware of the wind and how much movement may be created on the ball.
3. Have athletes stand further back from the service line to increase the ball’s ability to move.
Chapter 2: Forearm Passing

Forearm passing may be the most important skill in sand volleyball. It is mainly used to control the first offensive contact off an opponent’s service attempt. This first contact ultimately sets up the attack for the offense, and if not controlled, teams may find it much more difficult to execute an efficient attack. The forearm pass is executed by placing the wrists and hands together to create a “platform” or large surface area on the forearms in which to play the ball. This is the premier skill in volleyball and should not be overlooked. If you can pass, you can play.

Forearm Passing Concepts:

1. The ball only knows your angles
   - When an athlete passes a ball, the ball can only do what the athlete makes it do. If the correct angle is set toward the desired target, the ball has no choice but to go in that direction. No volleyball has a mind of its own!

2. Keep it simple!
   - We want repeatability with our movements, so it makes a lot of sense to perform simple movements, as those are the easiest to repeat. Putting extra movement or motion into a pass will make it more difficult to perform repeatedly.

3. Work the triangle
   - This is an important concept, and one that is mainly incorporated during serve reception. Passers should always attempt to play the
incoming ball forward and slightly to the middle of the court, but keep
the pass on their half of the court. This allows the setter to move
forward and play the ball straight up and down and in front of the
passer’s reception position. See figure 1 below.

**KEYS to the Forearm Pass**

1. **Ready Position & Posture:**
   - Feet staggered, knees bent, shoulders upright, with arms ready. Hands
     may start on knees before the ball is served to create a straight
     platform early.

2. **Wrists Together, Show Platform Early:**
   - Be sure that the thumbs and wrists remain together throughout the
     contact. How you place your fingers is up to the individual, but the
     integrity of the straight line from thumbs, wrists, and forearms, must
     remain all the way up to the shoulder. This straight line created by the
     arms is called the “platform”.
   - Athletes should get an early read on the incoming ball and attempt to
     get the arms together and behind the ball early to play it towards the
     desired target.

3. **Face the Ball, Angle the Arms:**
   - Passing should be performed with a minimal amount of movement
     during contact so as to increase the repeatability of the skill. When
     passing, athletes should face the direction of the incoming ball, and
simply angle their platform to help the ball go to the intended target.

4. See the Ball, Feet to Ball:
   - Assess ball flight, then get feet to the ball’s intended landing target
   - Efficient passing requires athletes to get their feet to the ball with balance in order to play it properly. This cue allows the player to get into the best position to receive – in the center of gravity, with a wide and staggered stance.

Behind the Science of Forearm Passing (why?)

1. Ready Position & Posture:
   - By starting with knees bent and hands down by knees, the athlete is in a low position and ready to come up and pass the ball when it arrives. Feet are staggered so that the athlete can move forward and backward in either direction.

2. Wrists Together, Show Platform Early:
   - Placing the wrists and thumbs together creates a big surface area along the forearms for the ball and provides a stable contact point for the ball to bounce off of.
   - By presenting a straight platform early, the athlete is able to make minor adjustments to the ball while in flight. This also helps the athlete create the desired angle for the ball to be played with a long and straight surface area.
3  Face the Ball, Angle the Arms:
   ● Facing the incoming ball and angling the arms allows you to play the ball as simply as possible. Because we know that simple movements are better than complex movements, it is important to let the angles do the work.

4  See the Ball, Feet to Ball
   ● In the sand there are only two players covering an entire court, so it is important to stress seeing the flight of the ball early (directly off of the servers contact, then getting the feet to the incoming ball as early as possible. This cue allows the player to be in the best position to receive the ball. Once the athlete gets feet to ball, they should attempt to balance themselves with a wide stance and in the athlete’s center of gravity, so that they can execute the pass.

**Common Problem Areas with the Forearm Pass**

1  One of the biggest problems that will arise is that athletes will not be able to keep a solid platform. This starts with the wrists and hands staying together. Be sure to spend a significant amount of time making sure that athletes in training maintain and hold their platforms.

2  Most athletes will want to bring their arms up initially and then back down to prepare to play the ball. This is a double move. Because we know that simple movements work best, be sure to watch athletes and correct any extra movement from the arms. Athletes should be reminded to bring
their platform from a low position (starting down) to a high position (finishing up).

Another problem that will arise is that athletes will want to swing their arms to the intended target. It is important to correct this early, as the ball knows angles. Make sure that athletes are facing the incoming ball, and directing their platform with the desired angle to the target. They should finish the pass with shoulders and body still facing the ball, not the target. Only the arms need to be angled to target.
**Figure 2-1. Forearm Pass - Toss/Pass/Catch**

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 1 or 2 balls</td>
<td>1 Encourage athletes to stay in ready position and posture (Key 1)</td>
</tr>
<tr>
<td>Minimum: One ball for 2 athletes</td>
<td>2 Athletes must focus on keeping wrists and thumbs together throughout the pass (Key 2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: Groups of 2 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Maximum: 8 athletes on half court + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 1 athlete + coach assisting</td>
<td></td>
</tr>
</tbody>
</table>

**PURPOSE:**
The objective of this drill is to practice the forearm pass in a setting with low contextual interference and increase athlete’s awareness of environmental conditions.

**DESCRIPTION/DIRECTIONS:**
Athlete at the net tosses a ball to a partner who forearm passes the ball back to the athlete at the net. The ball is caught and tossed again. Repeat for a number of times and then switch.

**MODIFICATIONS:**
- Have athletes pass to and from several areas on the court to get used to wind conditions.
Figure 2-2. Forearm Pass - Back & Forth Partner Passing

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 1 or 2 balls</td>
<td>1 Encourage athletes to stay in ready position and posture (<strong>Key 1</strong>)</td>
</tr>
<tr>
<td>Minimum: One ball for 2 athletes</td>
<td>2 Athletes must focus on keeping wrists and thumbs together throughout the pass (<strong>Key 2</strong>)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: Groups of 2 athletes + coach observing</td>
<td>3 Be sure to have athletes use shuffle steps while moving to the ball (<strong>Key 5</strong>)</td>
</tr>
<tr>
<td>Maximum: 6 athletes on half court + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 1 athlete + coach assisting</td>
<td></td>
</tr>
</tbody>
</table>

**PURPOSE:**
The objective of this drill is to practice the forearm pass in a setting with low contextual interference. Athletes will also gain a better understanding of current environmental conditions.

**DESCRIPTION/DIRECTIONS:**
Athlete at the net initiates the drill by tossing a ball to a partner who forearm passes the ball back to the athlete at the net. The ball is passed back and forth for a designate number of times. Repeat for a number of times and then switch.

**MODIFICATIONS:**
- Have athletes that are off the net practice passing forward/backward
- Have athletes that are off the net practice passing to the left and right.
Figure 2-3. Forearm Pass - Triangle Threes

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 1</td>
<td>1. Encourage athletes to stay in ready position and posture (Key 1)</td>
</tr>
<tr>
<td>Minimum: One ball</td>
<td>2. Athletes must focus on keeping wrists and thumbs together throughout the pass</td>
</tr>
<tr>
<td>2 athletes</td>
<td>(Key 2)</td>
</tr>
<tr>
<td></td>
<td>3. Be sure to have athletes use shuffle steps while moving to the ball (Key 5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: Groups of 2</td>
<td>1. Athletes to stay in ready position and posture (Key 1)</td>
</tr>
<tr>
<td>athletes + coach</td>
<td>2. Athletes must focus on keeping wrists and thumbs together throughout the pass</td>
</tr>
<tr>
<td>observing</td>
<td>(Key 2)</td>
</tr>
<tr>
<td>Maximum: 6 athletes</td>
<td>3. Be sure to have athletes use shuffle steps while moving to the ball (Key 5)</td>
</tr>
<tr>
<td>on half court</td>
<td></td>
</tr>
<tr>
<td>+ coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 1 athlete</td>
<td></td>
</tr>
<tr>
<td>+ coach assisting</td>
<td></td>
</tr>
<tr>
<td>at net</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The objective of</td>
<td>1. Athletes to stay in ready position and posture (Key 1)</td>
</tr>
<tr>
<td>this drill is to</td>
<td>2. Athletes must focus on keeping wrists and thumbs together throughout the pass</td>
</tr>
<tr>
<td>practice the</td>
<td>(Key 2)</td>
</tr>
<tr>
<td>forearm pass in</td>
<td>3. Be sure to have athletes use shuffle steps while moving to the ball (Key 5)</td>
</tr>
<tr>
<td>a setting with</td>
<td></td>
</tr>
<tr>
<td>low contextual</td>
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<tr>
<td>interference.</td>
<td></td>
</tr>
<tr>
<td>Athletes will also</td>
<td>1. Athletes to stay in ready position and posture (Key 1)</td>
</tr>
<tr>
<td>gain a better</td>
<td>2. Athletes must focus on keeping wrists and thumbs together throughout the pass</td>
</tr>
<tr>
<td>understanding of</td>
<td>(Key 2)</td>
</tr>
<tr>
<td>current</td>
<td>3. Be sure to have athletes use shuffle steps while moving to the ball (Key 5)</td>
</tr>
<tr>
<td>environmental</td>
<td></td>
</tr>
<tr>
<td>conditions.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION/DIRECTIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Athlete at the net</td>
<td>1. Athletes to stay in ready position and posture (Key 1)</td>
</tr>
<tr>
<td>initiates the drill</td>
<td>2. Athletes must focus on keeping wrists and thumbs together throughout the pass</td>
</tr>
<tr>
<td>by tossing a ball</td>
<td>(Key 2)</td>
</tr>
<tr>
<td>to a partner who</td>
<td>3. Be sure to have athletes use shuffle steps while moving to the ball (Key 5)</td>
</tr>
<tr>
<td>forearm passes the ball</td>
<td></td>
</tr>
<tr>
<td>back to the athlete at</td>
<td></td>
</tr>
<tr>
<td>the net. The ball is</td>
<td></td>
</tr>
<tr>
<td>passed back and forth</td>
<td></td>
</tr>
<tr>
<td>for a designate number</td>
<td></td>
</tr>
<tr>
<td>of times. Repeat for</td>
<td></td>
</tr>
<tr>
<td>a number of times and</td>
<td></td>
</tr>
<tr>
<td>then switch.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Have athletes that</td>
<td>1. Athletes to stay in ready position and posture (Key 1)</td>
</tr>
<tr>
<td>are off the net</td>
<td>2. Athletes must focus on keeping wrists and thumbs together throughout the pass</td>
</tr>
<tr>
<td>practice passing</td>
<td>(Key 2)</td>
</tr>
<tr>
<td>forward/backward</td>
<td></td>
</tr>
<tr>
<td>• Have athletes that</td>
<td>3. Be sure to have athletes use shuffle steps while moving to the ball (Key 5)</td>
</tr>
<tr>
<td>are off the net</td>
<td></td>
</tr>
<tr>
<td>practice passing</td>
<td></td>
</tr>
<tr>
<td>to the left and right.</td>
<td></td>
</tr>
</tbody>
</table>
### Equipment:
Ideal: 1  
Minimum: One ball for 3 athletes

### Participants:
Ideal: Groups of 3 athletes + coach observing  
Maximum: 9 athletes on each ½ court  
Minimum: 2 athletes + coach assisting

### Purpose:
The objective of this drill is to practice the forearm pass in a setting with moderate contextual interference. Athletes will learn to play the ball with three different platform angles. Athletes will also gain a better understanding of current environmental conditions.

### Description/Directions:
Athlete at the net initiates the drill by passing a ball to athlete in the middle who forearm passes the ball overhead to the athlete behind. The athlete at the end line will then pass the ball back to the athlete at the net. After a designated number of repetitions have been completed, have the athletes rotate to a new position until all three positions have been completed.  
Rotation order (net-middle-endline)

### Modifications:
- Have the athletes freeze the platform directly after the pass to gain a better understanding of their angle and the ball's flight to target.

### Teaching Points/Keys:
1. Encourage athletes to stay in ready position and posture (Key 1)  
2. Athletes must be mindful of the correct platform presentation in order to pass the ball at the desired height and speed. Present platform early! (Key 3)
Figure 2-5. Forearm Pass - U-Passing Drill

**Equipment:**
Ideal: 2-3 balls
Minimum: One ball.

**Participants:**
Ideal: 4 athletes + coach observing
Maximum: 8 athletes + coach observing
Minimum: 1 athlete + coach assisting

**TEACHING POINTS/KEYS:**
1. Athletes must be mindful of the correct platform presentation in order to pass the ball at the desired ‘up and down’ trajectory. Present platform early! *(Key 3)*
2. Encourage athletes to face the ball and angle the arms to target. *(Key 4)*

**PURPOSE:**
The objective of this drill is to practice the forearm pass technique on a free ball and emphasizes proper retreat movement to prepare for a spike approach.

**DESCRIPTION/DIRECTIONS:**
One athlete starts behind a cone that is 8 feet back from the center of the net and another athlete starts at the net, directly in front.

The athlete at the net throws the ball up about 10 feet in the air as the athlete behind the cone moves in towards the net and passes the ball straight up and down.

The passer then moves back and around the cone to the other side and in again to pass another ball up and down again.

Passers goal is to pass the ball as close to straight up and down as possible with recommended repetitions of about 6-12 (with each contact counted as a rep).

**MODIFICATIONS:**
- Athletes can choose to pass and retreat back to attack the final ball of the set or every other set.
- Thrower can throw the ball close or far away from the middle of the court.
### Equipment:
- Ideal: 2-3 balls
- Minimum: 1 ball

### Participants:
- Ideal: 4 athletes + coach observing
- Maximum: 8 athletes + coach observing
- Minimum: 2 athletes + coach assisting

### Purpose:
The objective of this drill is to help athletes understand the difference between “In-System” and “Out of System”.

*Balls passed between the two dotted lines of the passers are considered “In-System”*

### Teaching Points/Keys:
1. Athletes must be mindful of the correct platform presentation in order to pass the ball at the desired ‘up and down’ trajectory. Present platform early! *(Key 3)*
2. Encourage athletes to face the ball and angle the arms to target. *(Key 4)*
3. Remind athletes to shuffle to the ball whenever possible. *(Key 5)*

### Description/Directions:
The athlete or coach serves balls at a receiving pair on the opposite side of the net.

The athletes attempt to play out the ball with a conventional pass, set and spike but the coach pays close attention to whether the ball stayed ‘in system’ or not.

Athletes can get 1 point for every play ‘in system’ and perhaps and additional point for spiking the ball inside the opposition court.

### Modifications:
- Serve tougher and in particular to the sidelines.
Figure 2-7. Forearm Pass - Pass + Spike

**Equipment:**
Ideal: 4+ balls
Minimum: 1 ball

**Participants:**
Ideal: 3 athletes + coach observing
Maximum: 8 athletes + coach observing
Minimum: 2 athletes + coach assisting

**PURPOSE:**
The objective of this drill is to encourage a pass that is ‘up and down’ and close to the individual who passed the ball which aids in the development a pass that is easier to set.

**DESCRIPTION/DIRECTIONS:**
Athlete or coach drives a down ball or easy float serve to passer on the other side of the net (1).
The passer attempts to play the ball up in the air a couple feet in front of them and spike their own ball over the net (2).
This could be done from either the middle of the court or the service line depending on the level of the athletes.

**MODIFICATIONS:**
- Serve tougher and in particular to the sidelines.
- Mark out certain spots on the court that the athlete has to spike to.

**TEACHING POINTS/KEYS:**
1 Athletes must be mindful of the correct platform presentation in order to pass the ball at the desired ‘up and down’ trajectory. Present platform early! (Key 3)
2 Encourage athletes to face the ball and angle the arms to target. (Key 4)
3 Remind athletes to shuffle to the ball whenever possible. (Key 5)
Figure 2-8. Forearm Pass - Alternating Passing Drill

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 5+ balls Minimum: Two balls</td>
<td>1 Athletes must present platform early! (Key 3)</td>
</tr>
<tr>
<td></td>
<td>2 Encourage athletes to face the ball and angle the arms to target. (Key 4)</td>
</tr>
<tr>
<td></td>
<td>3 Remind athletes to shuffle to the ball whenever possible. (Key 5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 3 athletes + coach observing Maximum: 6 athletes + coach observing Minimum: 3 athletes + coach participating</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>This drill is one of the most popular in beach volleyball. It allows athletes to get repetitions in serving, passing, setting and spiking. The objective within this drill could be focused around any one of the 4 skills used.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION/DIRECTIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A coach or athlete serves the ball from the baseline or inside the court to receivers alternately. After passing the ball the athlete attacks and then leaves the court to be replaced by another athlete. The athlete that just set up the attack drops back to their original position to prepare to pass and attack. With an uneven number of athletes on the receiving side athletes will get practice passing from both sides of the court. With an even number of athletes they will end up receiving on the same side.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>● Serve tougher and in particular to the sidelines.</td>
<td></td>
</tr>
<tr>
<td>● Mark out certain spots on the court that the athlete has to spike to.</td>
<td></td>
</tr>
</tbody>
</table>
Figure 2-9. Forearm Pass - Pass and Look

**Equipment:**
Ideal: 2-3 balls  
Minimum: 1 ball

**Participants:**
Ideal: 4 athletes + coach observing  
Maximum: 7 athletes + coach observing  
Minimum: 2 athletes + coach assisting

**PURPOSE:**
The objective of this drill is to practice the forearm pass while receiving serve and developing the skill of looking at the opposition before initiating their spike approach.

**DESCRIPTION/DIRECTIONS:**
A coach or athlete serves the ball to either receiver on the other side of the net then proceeds to run to the center of the court and using their fingers displays a 1, 2, 3, 4 or 5 on their chest.

After athlete passes ball they must look at the person in the middle of the court and call out the number of fingers held up before playing out the ball.

**MODIFICATIONS:**
- The athlete looks again right before attacking and either calls the number again or hits away from the defender.
- The signals given by the coach or athlete could represent areas of the court that the attacker has to hit into.

**TEACHING POINTS/KEYS:**
1. Athletes must present platform early! (Key 3)
2. Encourage athletes to face the ball and angle the arms to target. (Key 4)
3. Remind athletes to shuffle to the ball whenever possible. (Key 5)
4. Remind athletes to take their eyes off of the passed ball after contact, as they can no longer control it. Rather, they should focus on opponent’s actions.
Figure 2-10. Forearm Pass - Tough Serve Off Box

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: As many balls as available</td>
<td></td>
</tr>
<tr>
<td>Minimum: 1-2 balls between 3 athletes.</td>
<td></td>
</tr>
<tr>
<td>1 Athletes must communicate and present platform early! (Key 3)</td>
<td></td>
</tr>
<tr>
<td>2 Encourage athletes to face the ball and angle the arms to target. (Key 4)</td>
<td></td>
</tr>
<tr>
<td>3 Remind athletes to shuffle to the ball whenever possible. (Key 5)</td>
<td></td>
</tr>
<tr>
<td>4 Athletes should watch the ball out of the servers hand and watch the server to attempt to anticipate where the ball is likely to go.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: Sets of 3 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Maximum: 6 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 2 athletes + coach assisting</td>
<td></td>
</tr>
</tbody>
</table>

**PURPOSE:**
The purpose of this drill is for passers to get high repetitions of difficult serves. Balls will be entered from inside the service line, making it more difficult for the passer to play the ball with less reaction time.

**DESCRIPTION/DIRECTIONS:**
An athlete or coach who is standing on a box inside the service line will serve to passers on the other side of the net who will in turn play the ball out.

If passing is the main focus of the drill, then simply have a coach or athlete stand on the side of the receiving group catching passed balls. This will allow the athletes to focus solely on the pass.

**MODIFICATIONS:**
- Server should move to various spots on the court to simulate varying serves.
- Mark out certain spots on the court that the passing athletes have to spike into.
Chapter 3: Overhead Passing

The overhead pass (also known as the “set”) is a very important skill as it is used to set up the third and most important point-scoring contact, the spike. The overhead pass usually gives the attacker an offensive advantage as it is being released from above the opponent’s head, thus giving the set ball less variance. Depending on the quality of the first contact, the overhead pass may not always be utilized, as it is difficult to perform if the ball is ball is not passed “in-system”. If this is the case, then athletes may use the forearm pass to set up the attacker.

It is important to note the difference in passing targets for indoor and sand volleyball. For athletes transitioning from the indoor game, the major difference is that in sand volleyball, the passing target is 3-5 feet away from the net, toward the middle of the court (not directly along the net). The reason for this is that there are only two individuals on the court at any given time, and balls played toward the net do not allow for ideal setting situations.

When teaching the overhead pass, it is important to take into the account the environmental conditions that are created by the sun, wind, and any other factors. If the wind becomes a factor while playing, the ball should be set lower. This will help keep a true trajectory (flight) of the ball and make for a third contact with less variance as the ball will not be “played” by the wind.

Overhead Passing Concepts

1. Line of Release
   - The line of release should be a straight line to the passed ball. The
setter should release as soon as they know the other player has the 1st contact. The setter should have shoulders squared towards the intended target, with the neck turned toward the passer.

2 Create the Apex

- The ideal set should move in an “up and down” motion. This will create a distinct apex, which would be the highest point of the set ball. Creating the apex will give the attacking athlete a great idea of where the set ball is likely to land.

KEYS to the Overhead Pass

1 Ready Position & Posture:

- Feet staggered, knees bent, shoulders upright, with arms ready. Right foot forward when setting to the left, left foot forward when setting to the right.

2 Ball Shaped Hands Up Early:

- Be sure that the fingers are wide and thumbs are pointed back to the forehead. Getting the hands up early is important so that once you arrive to the ball you are immediately ready to play it.

3 Contact with finger-pads:

- Athletes should contact the ball with the pads of the fingers and thumbs, but not with the palms of the hands. Wrists will naturally flex to take the shape of the ball.
Face the Target and Extend:

- Athletes should square the shoulders and hips (face the target) and extend elbows and wrists in a linear direction. The ball should be extended in one continuous motion.

Set, Call, and Cover:

- After the athlete has released the overhead pass, the athlete needs to look to the opponent’s court and give the attacking player a call based on where the opponent is situated on defense. Once the call is made, the setting athlete should be in a position to cover the attacker if the opposing blocker blocks the ball back into the court.

**Behind the Science of Overhead Passing (setting)**

1. Ball Shaped Hands Up Early:
   - Getting hands up early will give the setter more to prepare to receive the passed ball. Creating the shape of the ball early will help the setter handle the ball and play it in one motion, as a mishandled set will lead to a fault.

2. Contact with Finger Pads:
   - Using the finger pads as opposed to just the fingertips will provide more surface area for the setter to control the ball as it comes into the hands. If all ten finger pads are touching the ball, then the setter will ultimately maintain more control on the ball.
3 Face the Target and Extend:

- In order to minimize variance and increase repeatability of the overhead pass, it is important to get hips square to the target, as this will allow the athlete to always set in a linear direction.

4 Set, Call, and Cover:

- Once the set has been made, there is no advantage in watching the ball in flight, as this does not help the attacker. The setter needs to learn to help the attacker as much as possible by giving calls (suggestions as to where the open spots are in the opponents court) and then covering the hitter from the opposing block.

**Common Problem Areas with the Overhead Pass**

1 The biggest problem that most athletes will encounter with the overhead pass is not getting square to the target. Athletes will want to set balls sideways, and this happens because they are unable to get feet to the ball in the appropriate manner. Be sure to teach correct body position by reinforcing the “line of release” concept. There will be times that athletes will have to forearm or overhead pass a ball while not facing the target but if possible, this should only take place with “out of system” passes where the athlete does not have the time to get into proper position.

2 Athletes will encounter trouble trying to play the ball clean and in one motion. They need to be reminded to play the ball with elbows, not the wrists. The wrists will create a natural flexion when the ball arrives on the
finger pads. Once the ball is in the hands, the elbows should extend in one continuous motion to the target. Once again, this will increase repeatability, as only the elbows are moving, as opposed to elbows AND wrists (more complex).
Figure 3-1. Overhead Pass - Toss/Pass/Catch

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 1 or 2 balls</td>
<td>1 Encourage athletes to maintain ready position and posture <em>(Key 1)</em></td>
</tr>
<tr>
<td>Minimum: One ball for 2 athletes</td>
<td>2 Athletes must focus on getting ball shaped hands up early. <em>(Key 2)</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: Groups of 2 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Maximum: 8 athletes on ½ court + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 1 athlete + coach assisting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>The objective of this drill is to practice the overhead pass in a setting with low contextual interference and increase athlete’s awareness of environmental conditions.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION/DIRECTIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Athlete at the net tosses a ball to a partner who overhead passes the ball back to the athlete at the net. The ball is caught and tossed again. Repeat for a number of times and then switch.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Have athlete’s overhead pass to and from several areas on the court to get used to wind conditions.</td>
<td></td>
</tr>
</tbody>
</table>
Figure 3-2. Overhead Pass - Back & Forth Partner Passing

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 1</td>
<td>1 Encourage athletes to stay in ready position and posture (Key 1)</td>
</tr>
<tr>
<td>Minimum: One ball for 2 athletes</td>
<td>2 Athletes must focus on getting ball shaped hands up early. (Key 2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: Groups of 2 athletes + coach observing</td>
<td>3 Watch to be sure the athletes contact the ball with the pads of the fingers. (Key 3)</td>
</tr>
<tr>
<td>Maximum: 6 athletes on ½ court + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 1 athlete + coach assisting at net</td>
<td></td>
</tr>
</tbody>
</table>

**PURPOSE:**
The objective of this drill is to practice the overhead pass in a setting with low contextual interference. Athletes will also gain a better understanding of current environmental conditions.

**DESCRIPTION/DIRECTIONS:**
Athlete at the net initiates the drill by tossing a ball to a partner who overhead passes the ball back to the athlete at the net. The ball is played back and forth for a designated number of repetitions. Repeat for a number of times and then switch.

**MODIFICATIONS:**
- Have athletes that are off the net practice overhead passing with forward, backward as well as lateral movements.
## Equipment:
- **Ideal:** 1-2 balls
- **Minimum:** One ball for 3 athletes

## Participants:
- **Ideal:** Groups of 4 athletes + coach observing
- **Maximum:** 4 athletes to a group + coach observing
- **Minimum:** 2 athletes + coach assisting

## Purpose:
The objective of this drill is to practice the overhead pass from a serve receive position. Athletes will focus on reading the ball out of the passer’s hands and getting square to the target before setting.

## Description/Directions:
Athlete at the net (target) initiates the drill by tossing a ball to the athlete in front who forearm passes the ball to the athlete on the right. The athlete in the setting line will step in and set the ball back to the athlete at the net, then get back behind the setting line. After the athletes in the setting line have completed “x” number of reps, have them switch with the target and passer and repeat. Be sure to have athletes practice setting from the left and the right side of the court, and on both sides of the net.

## Modifications:
- Change the distance and trajectory of the pass to make the drill easier or more difficult.
- Have the target athlete work on a soft shot or dink to the passer.

<table>
<thead>
<tr>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Encourage athletes to start in ready position and posture, and move in balance. (Key 1)</td>
</tr>
<tr>
<td>2 Athletes must focus on getting ball shaped hands up early. (Key 2)</td>
</tr>
<tr>
<td>3 Watch to be sure the athletes contact the ball with the pads of the fingers. (Key 3)</td>
</tr>
<tr>
<td>4 Athletes must be reminded to face the target and extend the elbows. (Key 4)</td>
</tr>
</tbody>
</table>

![Diagram of Overhead Pass - Triangle Setting (High Rep)]
Figure 3-4. Overhead Pass - Triangle Setting Behind (High Rep)

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
</table>
| Ideal: 1-2 balls  
Minimum: One ball for 3 athletes | 1 Encourage athletes to start in ready position and posture, and move in balance. **(Key 1)** |
|          | 2 Athletes must focus on getting ball shaped hands up early. **(Key 2)** |
|          | 3 Watch to be sure the athletes contact the ball with the pads of the fingers. **(Key 3)** |
|          | 4 Athletes must be reminded to square their back to the target and extend the elbows overhead in order to play the ball behind. **(Key 4)** |

<table>
<thead>
<tr>
<th>Participants:</th>
<th></th>
</tr>
</thead>
</table>
| Ideal: Groups of 4 athletes + coach observing  
Maximum: 4 athletes to a group + coach observing  
Minimum: 2 athletes + coach assisting |  |

<table>
<thead>
<tr>
<th>PURPOSE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The objective of this drill is to practice the overhead pass behind off a pass made from the middle of the court. The athletes will learn to square their backs to the target and extend elbows overhead to allow the ball to travel behind.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION/DIRECTIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Athlete at the net (T) initiates the drill by tossing a ball to the middle of the court to a passer (P) who forearm passes the ball straight and to the middle of the court. The athlete in the setting line will step in and set the ball behind to the target (T), then get back behind the setting line. After the athletes in the setting line have completed “x” number of reps, have them switch with the target and passer and repeat. Be sure to have athletes practice setting from the left and the right side of the court, and on both sides of the net.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>● Change the distance and trajectory of the initial pass to allow the setter to bump-set.</td>
<td></td>
</tr>
<tr>
<td>● Have the target athlete work on a soft shot or dink to the passer.</td>
<td></td>
</tr>
</tbody>
</table>
**Equipment:**
Ideal: 10 balls  
Minimum: 3-4 balls

<table>
<thead>
<tr>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Encourage athletes to start in ready position and posture, and move in balance.  <strong>(Key 1)</strong></td>
</tr>
<tr>
<td>2 Athletes must focus on correct footwork while retreating off the net.</td>
</tr>
<tr>
<td>3 Both players should maintain visual contact on the attacker to anticipate where the ball will go.</td>
</tr>
<tr>
<td>4 Athletes must be reminded to get square to their target before setting up the attack.  <strong>(Key 4)</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The objective of this drill is to practice the overhead pass off of a blocker retreat. The drill works on blocker retreat footwork and recovery toward the dug ball to set up an attack.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION/DIRECTIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athlete or coach (C) initiates the drill with a spike to the defender (D) as the blocker (B) is retreating off of the net.</td>
</tr>
<tr>
<td>The blocker who has just retreated must now move to the dug ball and set up their partner for an attack.</td>
</tr>
<tr>
<td>Alternatively, the ball can be hit at the retreating blocker with the athlete on defense coming in to set up the attack.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Vary the speed of the attack to make it easier or harder.</td>
</tr>
<tr>
<td>● Have the target athlete work on a soft shot or dink to the passer.</td>
</tr>
</tbody>
</table>
### Equipment:
- Ideal: 1 or 2 balls
- Minimum: One ball for 2 athletes

### Participants:
- Ideal: Groups of 2 athletes + coach observing
- Maximum: 8 athletes on half court + coach observing
- Minimum: 1 athlete + coach assisting

### Purpose:
The objective of this drill is to practice the less than perfect setting situation that occurs after a ball has been passed into the net and needs to be played out. Athletes will get practice bump-setting the ball for their partner out of the net.

### Description/Directions:
An athlete starts by throwing or spiking the ball into the bottom of the net.
- The athlete that did not throw the ball prepares to bump the ball out of the net by getting as low as possible underneath the thrown/spiked ball.
- The athlete who played the ball into the net now prepares to spike the set ball.
- After an athlete throws/attacks, they can join the setting line and vice versa for the setter.

### Modifications:
- Have the coach initiate the spike into the net.
- Athletes can practice moving from a blocking position to set the ball out of the net.

### Teaching Points/Keys:
1. Encourage athletes to start in ready position and posture, and move in balance. (Key 1)
2. Athletes must understand the behavior of the net and how it acts to play the ball out effectively.
3. Athletes should play the ball from a low position to have enough time to react to the random ball position.
**Equipment:**
- Ideal: 10+ balls
- Minimum: 4 balls

**Participants:**
- Ideal: 3 athletes + coach observing
- Maximum: 6 athletes + coach observing
- Minimum: 2 athletes + coach assisting

**Purpose:**
The objective of this drill is to practice the blocker’s ability to turn after landing from a block attempt and get to the dug ball to make a great transition set.
The drill also gives the defender practice digging the hard driven ball or chasing down a soft shot and converting with a spike.

**Description/DIRECTIONS:**
The athlete or coach initiates the drill by spiking a ball past the block towards the defender.
After the blocker comes down from the block attempt, they must turn and move to the dug ball to set up their partner (the digger) for an attack.
With more than two players, you can have two athletes versus two athletes and play a continuous drill with angle attacks.

**Modifications:**
- Have the coach initiate the spike down the line to practice defensive pursuit.
- The ball can also be played into the block, forcing the digger to play the ball up for an immediate attack.

**Teaching Points/Keys:**
1. Encourage athletes to start in ready position and posture, and move in balance. (Key 1)
2. Blocker must turn and get ‘around’ the ball and face the net to set.
3. Digger should be reminded to play the ball high in order to give the blocker time to land and move to the dug ball.
Figure 3-8. Overhead Pass - Set and Look

**Equipment:**
Ideal: 8-16 balls  
Minimum: 4 balls

**Participants:**
Ideal: 3 athletes + coach observing  
Maximum: 6 athletes per side + coach observing  
Minimum: 2 athletes + coach assisting

**PURPOSE:**
This drill is ideal for setter’s to practice turning and looking to the other side of the net and calling a shot to the open court for their partner to attack.  
This is a valuable motor pattern to learn as it will help the attacker find the open court easier, allowing for more point scoring opportunities.

**DESCRIPTION/DIRECTIONS:**
An athlete or coach initiates the drill by throwing or serving a ball to either of the two athletes on the opposite side of the net.  
After the ball is passed and set, the individual who threw the ball will move to one side or the other. (left or right)  
After the player sets the ball, they must turn and call the area opposite of where the thrower moved to in an attempt to help the attacking player find the open court area. (Call line or angle)

**TEACHING POINTS/KEYS:**
1. Encourage athletes to start in ready position and posture, and move in balance.  (Key 1)  
2. Encourage the setter to face the setting target and whenever possible and extend elbows.  (Key 3)  
3. Remind athletes to set, call, and cover the hitter (Key 5)

**MODIFICATIONS:**
- Add a blocker so the setter has a “nobody” call to give if the blocker retreats.  
- Have the setter bump set or overhead set the ball.
Chapter 4: Attacking

The attack in sand volleyball is the primary means of point scoring, and is usually performed on the third and final contact (sometimes second) of a team’s offensive sequence. The attack is very dependent on the pass and set quality, as well as the opponent’s service strategy. The better the pass quality, the better the eventual set up will be for an attack.

Because sand volleyball is played two versus two, it is important for both players on a team to develop attack consistency. Opponent serving strategies will change if it is found that one player is a weaker attacker. If both players are able to convert attacking actions successfully, they become very versatile and limit the opponent’s attempts to strategize against a potentially weaker attacker.

Unlike the indoor game, sand volleyball requires a high degree of attack proficiency. Each player should have a wide range of attack selections. Types of attacks in sand volleyball can be hard-driven spikes, soft shots, or dinks to all parts of the court. The attack is comprised of three basic elements: the approach, the jump, and the arm-swing (ball contact). The approach assists with momentum and allows you to transfer horizontal movement into vertical movement. The jump is created with a step-close (last two steps of the approach) and arms swinging together up into the air. The arm-swing is created using torque from a “load” to the “unload” position (see attacking keys for load/unload). The hand should form the shape of a ball with fingers spread apart so that the athlete can get more surface area on the ball itself. This will allow for more control.

It is important for attacker’s to align the body in a position that will allow for
optimal range directly after the initial pass or dig, and before the set has been made. This will give the attacker the most power and is easiest on the body. For right handed hitter’s hitting from the left side, the angle of approach should have the hitter facing the deep angle. For right handed hitter’s hitting from the right side, the angle of approach should have the hitter facing the deep middle.

**Attacking Concepts**

1. **Always approach thinking attack.** With attacking, it is vital to use a repeatable approach (one that is facing the hardest attack) and maximum jump. Doing so will allow the athlete to better disguise their final attack option. It is easier to change one’s mind from a hard driven spike to a shot, as all you have to do is slow the arm down.

2. **Transition to the correct attack position.** In sand volleyball, transitioning from a pass or dig to an optimal attack position is of the upmost importance. An attacker will have no chance to hit the ball hard if they do not position themselves properly before the ball is set. Athletes must be aware of the “point of hesitation” and the correct angle of approach from the left and right sides of the court. The worst thing one can do as an attacker is to pass or dig a great ball, and then not work to get into a position to attack the ball.
Keys to the Attack

1  Ready Position & Posture:
   - Attacker’s must get to a “point of hesitation” directly after the initial pass or dig. The point of hesitation is an area of the court that allows the attacker to approach facing the hardest hit: the cross court attack.

2  Feet to the Ball
   - There is no specific footwork pattern required to approach to a ball, however it is important to finish with the appropriate footwork to allow for proper torque. For right-handed hitters, the finish would be left, right-left (with a big right foot stride and a close with the left foot). For left-handed hitters, the finish would be right, left-right.
   - Attackers should take long strides to get to the point of hesitation as quickly as possible. Once they are in position, the approach steps should be small to big and slow to fast.
3 Arms go down, back, and up together

- Arms should go straight down in front of the hips on the athlete’s left step (this happens on the 1st of last 3 steps)
- Arms will swing all the way back together behind the athlete, almost parallel with the sand (this happens between the big right stride step and left step-close).
- Once the athlete has planted both feet on the ground, the arms will swing straight up together (arms should be above the head before the athlete starts the vertical jump).

4 Load, then Unload to target

- **Load**: As a player approaches to attack, the hips twist toward the net so that the attacker is perpendicular to the net on the jump. As the hips twist, the non-hitting arm is up very high with the hitting elbow up and shoulder back. The hitter should feel slight tension from the hitting shoulder to the opposite hip.
- **Unload**: The unload occurs when the non-hitting arm is pulled down close to the body (bend of the elbow) and the hitting shoulder is brought through to contact. The hitting elbow will extend to the ball, allowing the athlete to reach high and contact the ball at the highest point possible.
Behind the Science of Attacking

1 Ready Position & Posture
   - Getting to an appropriate ready position is vital because it allows the attacker the freedom to attack any type of set. Because it is difficult to move in the sand, the attacker must always work to get to a “point of hesitation” to be close enough to the set ball, allowing the attacker to make any adjustments based on the set location, height, and speed.

2 Feet to the Ball
   - In order to attack with maximum range, athletes must get their feet to the ball each and every time. Not lining up properly behind the ball will force the attacker to change the arm-swing, thus losing repeatability and range. Athletes must be reminded to get feet to ball so that the ball is only 8-12 inches in front of the athlete’s hitting shoulder.

3 Arms go Down, Back, and Up Together
   - Because it is difficult to move in the sand, athletes must use their arms to assist with their approach to the ball. Doing so will allow them to get more out of their jump.

4 Load/then Unload to Target
   - By allowing the hips to twist toward the net, the attacker will be able to “brake” their forward momentum and transfer it to a more vertical jump, as opposed to a broad jump. This combined with bringing the
hitting elbow up and back helps the athlete get into a natural “load” position. By bringing the hitting shoulder through during the “unload”, the athlete will increase power and be able to speed up the eventual contact on the ball. The arm is an extension of the shoulder, so once the shoulder comes through the ball, the arm follows. This should be a “whip-like” motion.

**Common Problem Areas with Attacking:**

1. When learning to attack after a pass, athletes will be late getting to the set ball. This is most commonly due to not getting to a point of hesitation early. Remind athletes that they must work between the initial pass or after a dig to get into a great position to attack the entire court as well as close ground on the set ball.

2. Attackers may close ground on the set, but sometimes attack over the top of their head or on the non-hitting shoulder. This will force the athletes to drop their arms, or lose power on the attack. As athletes approach, they need to be reminded to line the ball up in front of their hitting shoulder. This will allow them to attack the ball into a variety of spots on the court.

3. Players will have a tendency to not open their body up to the set ball. This type of closed hitting position does not allow the athletes to quickly “load up” and attack the ball. It is important to stress opening up to the ball with the correct footwork (left foot, left shoulder forward for right handed hitter’s) to get maximum power on the swing.
Equipment:
Ideal: As many balls as possible
Minimum: 3-4 balls

Participants:
Ideal: 1 athlete + coach observing
Maximum: 8 athletes coach observing
Minimum: 1 athlete + coach participating

PURPOSE:
The purpose of this drill is to reinforce the correct angle of approach, feet to ball, and proper arm and hand positioning for the attack.

DESCRIPTION/DIRECTIONS:
The tosser (may be a coach or athlete) starts by tossing a ball in the air for the attacker to spike. The attacker will get feet to the ball properly, with the left foot slightly in front of the right (almost facing the tosser) and then load up. During the load, make sure athletes are keeping their non-hitting hand high. Athlete will track the ball with non-hitting and then unload and hit into the cross-court angle. As the athletes improve their spike contact, you may vary the toss forcing the attacker to move in order to contact the ball in the correct place above the shoulder.

MODIFICATIONS:
- Have athletes practice from the left, middle, and right side of the court.
- Athletes should attack from both sides of the net.
- Vary the toss so athletes must get feet to the ball.

TEACHING POINTS/KEYS:
1. Coach should reinforce approaching with the correct angle from point of hesitation. *(Key 1)*
2. Athletes should be reminded to get feet to the ball *(Key 2)*
3. Encourage athletes to Load/Unload in the direction of their target. *(Key 4)*
Figure 4-3. Attacking - Back and Forth Attack

**Equipment:**
Ideal: As many balls as possible  
Minimum: 3-4 balls

**Participants:**
Ideal: 2 athletes + coach observing  
Maximum: 8 athletes + coach observing  
Minimum: 1 athlete + coach participating

**TEACHING POINTS/KEYS:**
1. Coach should reinforce approaching with the correct angle from point of hesitation.  
   (Key 1)
2. Athletes should be reminded to get feet to the ball (Key 2)
3. Be sure to have athletes practice bringing the arms down, back, and up together during the approach (Key 3)
4. Encourage athletes to Load/Unload in the direction of their target.  
   (Key 4)

**PURPOSE:**
The purpose of this drill is to reinforce the correct angle of approach, footwork, arm-work, and hand positioning for the attack.

**DESCRIPTION/DIRECTIONS:**
The drill begins with the attacker (A) tossing or passing the ball to the setter (S), who will play the ball back to the attacker with a pass, set, or soft shot.  
The attacker will pass the ball, then move to the point of hesitation and wait for a set.  
Once the setter sets, the attacker will move to hit the ball and spike it into an area designated by the coach.  
This drill is great to reinforce proper footwork and arm-swing work, which will assist with momentum and timing to attack the ball in the air.

**MODIFICATIONS:**
- Have athletes practice from the left, middle, and right side of the court.
- Vary the toss so athletes must move to hit the ball correctly in front of the hitting shoulder.
**Figure 4-4. Attacking - Four Corners Attacking**

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
</table>
| Ideal: As many balls as possible  
Minimum: 5 balls | 1 Reinforce approaching with the correct angle from point of hesitation. *(Key 1)*  
2 Athletes should be reminded to get feet to the ball *(Key 2)*  
3 Be sure to have athletes practice bringing the arms down, back, and up together during the approach *(Key 3)*  
4 Encourage athletes to Load/Unload in the direction of their target. *(Key 4)* |

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th><strong>PURPOSE:</strong></th>
</tr>
</thead>
</table>
| Ideal: 2 athletes + coach observing  
Maximum: 6 athletes + coach observing  
Minimum: 1 athlete + coach assisting | The purpose of this drill is to help athletes develop a wide range of shots.  
The drill also helps to reinforce the correct attack mechanics, allowing the athlete to hit into all areas of the court. |

<table>
<thead>
<tr>
<th><strong>DESCRIPTION/DIRECTIONS:</strong></th>
<th><strong>MODIFICATIONS:</strong></th>
</tr>
</thead>
</table>
| The drill begins with the attacker tossing a ball to the setter, who sets the ball up into the air.  
The attacker then spikes the ball into the 1st area of the court. Once the athlete has successfully spiked into area 1, they can move to area 2, then 3, and finally 4.  
Coaches can switch the order of areas to be attacked into based on individual needs of athletes.  
Be sure to set individual goals for each athlete (i.e. 5 balls in a row to each spot; 6/10 balls into designated zone). |  
- Have athletes attack from the left, middle, and right side of the court.  
- Make the attack area smaller or larger, depending on skill level. |

![Diagram of Four Corners Attacking](image-url)
Figure 4-5. Attacking - Attacker Endurance Drill

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
</table>
| Ideal: 10 balls + cone or marker  
Minimum: 6 balls | 1 Coaches should reinforce approaching with the correct angle from point of hesitation. **(Key 1)** |
| **Participants:** | 2 Encourage athletes to Load/Unload in the direction of their target. **(Key 4)** |
| Ideal: 2 athletes + coach observing  
Maximum: 6 athletes (3 per side) + coach observing  
Minimum: 1 athlete + coach assisting | 3 Additionally, have athletes focus on a maximal jump and maintain a high hitting elbow throughout the duration of the drill. |

**PURPOSE:**
This drill works on the attacker’s endurance and maintaining correct mechanics of the attack even when tired.

**DESCRIPTION/DIRECTIONS:**
An athlete or coach initiates the drill by tossing or setting a ball to the attacker who approaches and spikes the ball. The attacker will then retreat around the cone (placed about 10 ft. from the net) and prepare to spike another ball set from the coach. After each spike the player running the drill picks up another ball and sets the opposite side until a set number of balls of played. Athletes must attack a certain # of balls over the net without the ball touching the net (this can vary from 6-12 balls or by time).

**MODIFICATIONS:**
- Add areas of the court for the attacker to spike into.
- Have the coach or athlete running the drill hit a ball at the attacker requiring a dig before each set/attack.
Figure 4-6. Attacking - Attacking away from the Defense

**Equipment:**
Ideal: 5-10 balls  
Minimum: 3 balls

**Participants:**
Ideal: 3 athletes + coach observing  
Maximum: 8 athletes (4 per side) + coach observing  
Minimum: 2 athletes + coach assisting

**PURPOSE:**
This drill works on the attacker’s ability to effectively hit or shoot the ball away from the defender.  
It is important for the attacker to develop the ability to take a quick look at the defense before deciding where to attack.

**DESCRIPTION/DIRECTIONS:**
An athlete or coach initiates the drill by throwing or serving a ball to either of the two athletes on the opposite side of the net. The two players opposite the server will pass, set, and spike the ball.  
The server will move to either the left or right directly after the ball is set.  
The attacking player must focus on taking a quick look at the defender before jumping to attack the ball.  
Mark areas in the sand for the attacker to hit to, and give points for successful attacks.

**MODIFICATIONS:**
- Add a blocker to force the athlete to attack around the block.  
- Have the serving player wait longer before moving, increasing difficulty for attacker.

**TEACHING POINTS/KEYS:**
1. Coaches should reinforce approaching with the correct angle from point of hesitation. *(Key 1)*  
2. Athletes should be reminded to get feet to the ball *(Key 2)*BEFORE looking at the defender.  
3. Encourage athletes to Load/Unload in the direction of their target. *(Key 4)*
Figure 4-7. Attacking - Continuous Attack

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 2 or 3 balls</td>
<td>1 Athletes should reinforce all attacking keys during this drill, especially as the rally continues and athletes become fatigued.</td>
</tr>
<tr>
<td>Minimum: 1 ball</td>
<td>2 Athletes should be aware of their spiking targets by looking at the other side of the court frequently and by communicating with partners.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 4 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Maximum: 8 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 3 athletes + coach participating</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>The purpose of this drill is to help athletes develop ball control with the spike and dig. It can equally be used as a warm-up, and you may. This is the same concept as over the net pepper (OTNP) where the athletes are attempting to control the ball back and forth over the net.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION/DIRECTIONS:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>The drill is initiated either with a serve or simply by having the ball thrown into the court. One side will pass, set, and attack down the line, while the other side will dig, set, and attack the cross court angle. After a certain number of consecutive attacks, have partners switch sides on the court to change the direction attack, then have both groups switch to the opposite half court to practice attacking on both sides of the net.</td>
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</table>

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>This drill can be made competitive by initiating free play after the ball crosses the net a certain number of times.</td>
<td></td>
</tr>
</tbody>
</table>
Figure 4-8. Attacking - Over on two

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 5-10 balls</td>
<td>1 Encourage athletes to attack the ball rather than shoot as the first option, reinforcing the ability to Load/Unload in the direction of their target. (Key 4)</td>
</tr>
<tr>
<td>Minimum: 3 balls</td>
<td>2 Athletes should be reminded to have the initial pass travel up and down rather than forward and up.</td>
</tr>
<tr>
<td></td>
<td>3 Athletes should be reminded that the best areas to attack into are to the back corners and short away from the block.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th></th>
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<tbody>
<tr>
<td>Ideal: 3 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Maximum: 8 athletes (4 per side) + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 2 athletes + coach assisting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>PURPOSE:</strong></th>
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<tbody>
<tr>
<td>This drill works on the non-receiving player’s ability to utilize the “over-on-two” option. This is an important strategy, especially when one receiving player is consistently getting served to or having trouble siding out.</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th><strong>DESCRIPTION/DIRECTIONS:</strong></th>
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</thead>
<tbody>
<tr>
<td>An athlete or coach initiates the drill by serving a ball to either of the two athletes on the opposite side of the net. Receiving team will pass, set, and perform a normal attack option, or they can opt to play the ball over on two. This play is highly dependent on the receiving ability of the two players. The easiest way to introduce the over on two option is with short serves. This way the pass goes up and down, giving an easy option to the setter.</td>
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<table>
<thead>
<tr>
<th><strong>MODIFICATIONS:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>● Add areas of the court that the receiving team must attack into.</td>
<td></td>
</tr>
<tr>
<td>● Add defenders on the serving side to either block or play defense, forcing the receiving team shoot away from them.</td>
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</table>
Chapter 5: Block and Individual Defense

Defense in sand volleyball carries the same philosophy as the indoor game: do whatever you can to not let the ball hit the ground on your own side. There are techniques that can be taught to keep the ball off the ground, but more importantly, defense requires an attitude to never give up on a ball. This attitude is especially present in sand volleyball, as defense is much more difficult to execute with the number of players responsible for the court changing from 6 players (indoor) to 2 players (sand). Generally, it has been found that sand volleyball teams will specialize in defensive positions, with one player acting as a block, and the other as a defender playing behind the block. Teams can also share block and defense responsibilities, as this gives an equal amount of repetitions jumping for both players on the block.

The blocker is responsible for lining up in front of the opposing attacker and attempting to stop the attacker’s hit, or attempting to take away an area of the court. The blocker must be aware of the opposing hitter’s body language and line of approach in order to get into the best position possible to stop the attack. There will be several situations where the while the defender playing behind the block is responsible for the remainder of the court not being immediately taken away by the blocker. Defense is difficult to master and requires each player to work very hard and never give up.

The defender must use a variety of skills to be able to play balls that are going in so many different directions. For balls hit near the defender, the arms and hands will respond the best. Therefore the forearm digging skill is essential. For hard driven balls hit at the defenders head, the catch (overhead dig) may be used. Ball’s hit out of the
defender’s immediate range will require mastery of several different skills. These skills include the tomahawk and fist (overhead dig with one or two hands), the sprawl dig, running to and playing the ball, and the diving dig. If possible, all balls should be played with two hands, but there will be situations when only one arm can play the ball, and this must be incorporated into training.

**Block and Dig Concepts**

**Block-First Defense.** Generally, the offensive team will always have the advantage against a defense, but using a block-first defense will intimidate opposing attackers and force them into difficult decisions. The block-first defense simply means that a team will always start with a player at the net who is a blocker first. The blocker’s decision to stay on the net and block is based on the 2nd contact from the opposing team’s offensive sequence. After a pass from the receiving team, the setter will attempt to place the ball in an area for the attacker to spike. Depending on the quality of the placement of the set, the blocker may decide whether or not to stay and block, or to pull away from the net so that both players are defending the court from the floor. If a ball is set off of the net and the opposing attacker does not have a powerful approach or the ability to attack with a downward angle, then the blocker may choose to pull off of the net and balance the court with the digger behind.

**Blocking Signals (Defensive schemes).** Blocking signals are common in sand volleyball and are used by partners to communicate which defensive schemes will be employed during the upcoming rally. Blocking signals involve the blocking athlete holding two hands behind the back while at the net and indicating what area of the court
will be blocked for each opposing attacker. The left hand represents what will be blocked from the opposing teams right side attacker, and the right hand represents what area will be blocked from the opposing teams left side attacker. These signals can also be called by the floor defender (normally when the blocking athlete is serving).

The blocker may choose to take away either the line of an attacker (displaying one finger on the hand) or take away the angle of an attacker (displaying two fingers on the hand). Once the blocking responsibilities have been put in place for the point, it is the assignment of the defensive player to position oneself in the open area around the block. This open area is most susceptible to the hard driven attack and should be defended first.

It is important for the digger to position oneself around the blockers inside hand on the block. This will allow the digger to see the opposing attacker’s intentions, and make the best possible move to dig the hard driven ball in the digger’s zone or run down the shot that travel’s over the blocker’s hands.

![Figure 5-1. Blocker takes line; defender covers the open area (hitter’s angle shot)](image)

**Types of defensive schemes**

(assumed that one player is blocking, the other is playing defense behind)
**Block line, dig angle.** Blocker takes away hitter’s line attack, defender positions in the angle.

**Block angle, dig line (blocker dive).** Blocker takes away hitter’s angle attack, defender positions on line.

**Take Ball.** Blocker reads and takes hitter’s main attack, defender positions behind blocker in middle of court and looks for shots to run down.

**Double Up (Take angle, dig angle OR take line, dig line shot).** Blocker takes away the hard attack, while digger lines up behind the hard attack and waits for attacker’s shot over the block.

**Pull off and dig.** Blocker pulls off of the net and balances the court with the digger in an attempt to fool the hitter and dig the attack or shot.

**Fake Pull and Block.** Blocker takes a step away from the net to show the pull off and dig, then jumps back toward the net and blocks a specific area.

**Ball-Setter-Ball-Hitter (For blockers and digger’s).** Ball-setter-ball-hitter (BSBH) is the premier defensive skill in volleyball. It is the appropriate eye-work sequence that is needed to give the defensive team the best chance of positioning themselves to block or dig the attacked ball successfully.

The basic idea behind BSBH is that an athlete should spend time “reading” the play and extracting the correct information to give them the best chance to defend successfully. Initially, the defender should see the ball being passed. Once the athlete knows where the ball is going, they should take eyes off the ball and immediately look at the setter to get an idea of what the setter’s intentions are. As the ball is set, the athlete
should see the ball once again, and judge the speed, height, and direction of the set. The sooner the athlete can decipher where the set ball is going to land, the better. This allows the defender to get in front of the set and take the eyes off of the set ball, and onto the hitter. Getting eyes on the hitter is extremely important, as it will give the defender cues as to where the hitter is attacking. The defender should look at the hitter’s shoulders and attack approach to the ball. These clues will allow the defender to anticipate what is likely to happen and better prepare to make a defensive play.

**Keys to Blocking**

1. **Ready position and posture**
   - **Block:** Standing 12-18 inches off the net, knees slightly bent (legs loaded), hands are level with head, and feet are shoulder width apart.
     
     Ready to run and jump.

2. **Line Up on Hitter and Read**
   - Once the ball is served, the blocker will move in front of the opposing passer (maintain ready position and posture), as this is the player who will be set up to attack.
   - From this position, BSBH comes into play. The blocker must now read the pass and set, and pay attention to where the set is likely to fall, as the hitter will also be moving to this spot.

3. **Jump and Get Hands Over**
   - Legs load, then explode: From the loaded position, legs extend into a maximum vertical jump.
● Elbows extend and seal: Hands go across the net as soon as wrists clear the top of net.

● Hands angled into the court: Big wide and open hands that stay close together when penetrating the net.

 Keys to Individual Defense

1 Ready Position & Posture
   ● Stopped and low with feet apart, arms ready: knees in front of toes, arms in line with knees and out from body with palms up.
   ● Starting position should be approximately 15 feet off the net, near middle of court

2 Read, then React
   ● Initiate BSBH eye-work. Watch the pass, then look at the setter and see the set (judge height), then get eyes on the hitter (watch approach and shoulder).
   ● Don’t go until you know where the ball is being hit.
   ● Move quickly with big steps to the ball to allow more time to play it.

3 Dig high and to the middle:
   ● Defenders want to dig the ball high and to the middle of the court, by getting the platform or arms underneath the attacked ball and lifting the shoulders up.
   ● The harder the hit, the higher the arms angle!
Cues for the Forearm Dig

1. Face the ball, angle the arms
   - Feet and hips are square to the ball, arms are angled in direction of target

2. Platform underneath ball
   - Bend knees and hips to enable wrists and hands to comfortably get underneath the ball

Cues for the Tomahawk

1. Both hands together above head
   - One hand over fist (ball is played on the base of the hand)
   - Can also use “prayer” technique (hands together in prayer fashion)

2. Push ball up
   - Lift with arms to push the ball in the air. Elbows will extend and ball is played at the base of the hand.

Cues for the Sprawl

1. Very big first step to ball
   - Big step with foot closest to ball

2. Platform underneath Ball
   - Bending at the hips and knees enables wrists and hands to get underneath the ball.

3. Dig then catch yourself
   - Dig the ball first, and then catch body with forearms and wrists on the sand.
Behind the Science of Blocking

1. Ready Position & Posture
   - Standing 12-18 inches away from the net will eliminate any potential net violations by the blocker. By loading the legs, the blocker will be ready to run and jump if needed.

2. Line Up on Hitter and Read
   - Blocker’s want to line up on the hitter so that they will not have to make any large moves across the net after the ball is set up.
   - Because volleyball is a visual/motor game, reading becomes the primary weapon for the defense. What blockers see from peripheral and narrow vision dictates what when and where they will jump.

3. Jump and Get Hands Over
   - It is important to seal the net, as this helps blockers take away potential hitting angles from the opposing attacker.
   - Thumbs should be pointed upward and hands should be within shoulder width while penetrating the net.

Behind the Science of Individual Defense

4. Ready Position & Posture
   - Playing defense requires fast decision making skills and quick reflexes, so the athletes must be stopped and in a position to pursue a ball anywhere on the court.
• By starting in the middle of the court, the defender is never too far from any potential attack. The player can

5 Read, then React

• It is important to use eye-work behind the block, as volleyball is a visual game.

• Using Ball-Setter-Ball-Hitter eye-sequencing will allow the defender to better anticipate where the ball is likely to go.

• Take big steps to the ball: move quickly to the ball to allow more time to play it.

6 Dig high and to the middle

• Defenders want to dig the ball high and to the middle of the court because it will allow time for the other defender to get to the ball and perform a more accurate set. This is vital for effective transition from defense to offense.

• The harder the dig, the higher the angle!

**Common Problem Areas with Block and Defense:**

The major problem that athletes will face with blocking and defense is focusing their attention on the ball flight for too long. This will cause them to miss what the opposing player is intending to do with the ball. Athletes need to focus attention on the actions of the players playing the ball, not the ball itself!
Figure 5-2. Block - Basic Blocking Drill

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
</table>
| Ideal: 6-10 balls  
Minimum: 1 ball | 1 Coach should reinforce correct ready  
position and posture (Key 1) |
| Participants: | 2 Athletes should focus on reading hitter,  
and reacting to what they see. (Key 2) |
| Ideal: 4 athlete + coach observing  
Maximum: 6 athletes coach observing  
Minimum: 1 athlete + coach assisting | 3 Coaches should remind athletes to get  
arms and hands over the net in the correct  
position. (Key 3) |

PURPOSE:
The purpose of this drill is to give athletes a high volume of blocking repetitions with focus on hand, arm, and body position.

DESCRIPTION/DIRECTIONS:
An athlete or coach starts by attacking a ball at an opposing blocker. The blocker starts by taking away the attacker’s line shot, and then start moving into the attacker’s angle. Repeat for 6-10 repetitions and then have athletes switch roles.

This drill can also be performed on a lower net to allow athletes to focus on proper technique without getting exhausted.

MODIFICATIONS:
- Have athletes start by servin, then coming to the net to block.
- Have athletes position to block line, then dive into the angle.
- Have athletes position to block angle, then dive into the line.
### Figure 5-3. Block - Read the Power Shot

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 6-10 balls Minimum: 2 balls per group</td>
<td>1 Coach should reinforce correct ready position and posture. <em>(Key 1)</em></td>
</tr>
<tr>
<td></td>
<td>2 Athletes should focus on reading hitter’s angle of approach and their shoulders before keying in on the ball while blocking. <em>(Key 2)</em></td>
</tr>
<tr>
<td></td>
<td>3 Coaches should remind athletes to get arms and hands over the net in the correct position.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
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</thead>
<tbody>
<tr>
<td>Ideal: 3 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Maximum: 12 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 2 athlete + coach assisting</td>
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</tbody>
</table>

**PURPOSE:**
The purpose of this drill is to reinforce the correct angle of approach, feet to ball, and proper arm and hand positioning for the attack.

**DESCRIPTION/DIRECTIONS:**
The drill begins with an athlete or coach tossing a ball over the back of a blocker who is positioned in front of the tosser on the same side of the net.

The attacker on the other side of the net will approach to hit the ball that has just been tossed. The blocker must read the attacker’s line of approach and block the attacked ball.

In order for this drill to work successfully, the attacker must attempt to hit a powerful shot in the same direction of their approach, and not try to hit away from the block.

Play out a certain number of perfect repetitions and then rotate positions.

**MODIFICATIONS:**
- Have the attacker throw in a soft shot over the block and have the blocker turn and pursue the ball.
### Figure 5-4. Block - Angle Blocking Options

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: As many as possible</td>
<td></td>
</tr>
<tr>
<td>Minimum: 6 balls plus coaches box</td>
<td></td>
</tr>
<tr>
<td>1 Coach should reinforce correct ready position and posture. (Key 1)</td>
<td></td>
</tr>
<tr>
<td>2 Athletes should focus on reading hitter’s angle of approach and their shoulders before keying in on the ball while blocking. (Key 2)</td>
<td></td>
</tr>
<tr>
<td>3 Coaches should remind athletes to get arms and hands over the net in the correct position. For angle blocks, it is important to not let the hands get too far apart from each other. (Key 3)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 1 athlete + coach assisting</td>
<td></td>
</tr>
<tr>
<td>Maximum: As many as space allows</td>
<td></td>
</tr>
<tr>
<td>Minimum: 1 athlete + coach assisting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>PURPOSE:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this drill is to get a high volume of angle blocking reps. Athletes will learn to develop balanced movement and control in the air when attempting the angle block.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>DESCRIPTION/DIRECTIONS:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The drill begins with an athlete or coach (standing on a box) tosses the ball up into the air and hits it into, off, or around the blocker. Two types of angle blocks can be practiced.</td>
<td></td>
</tr>
<tr>
<td><strong>Angle Block 1:</strong> The athlete makes a quick, low, sideways step into the angle shot and then pushes straight over the net.</td>
<td></td>
</tr>
<tr>
<td><strong>Angle Block 2:</strong> The athlete stays on the attacker’s line shot and then jumps into the angle shot.</td>
<td></td>
</tr>
<tr>
<td>With Angle Block 2, the athletes arms will be outside of the body with the inside arm penetrating across the net, and the outside arm closing the gap between both hands.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MODIFICATIONS:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>● Have the blocker practice moving across from the angle and jumping back toward the line shot.</td>
<td></td>
</tr>
</tbody>
</table>

![Diagram](image-url)
Figure 5-5. Block - Retreating and Playing the Ball

**Equipment:**
Ideal: 6 balls and a stand or a box  
Minimum: 1 ball

**Participants:**
Ideal: 3 athletes + coach observing  
Maximum: 6 athletes + coach observing  
Minimum: 1 athlete + coach assisting

**PURPOSE:**
The purpose of this drill is to practice the blocker’s movement off the net (retreating) and playing a ball hit towards them.

**DESCRIPTION/DIRECTIONS:**
An athlete or coach slaps the ball then tosses it and attacks over the net towards a retreating athlete.

The blocking athlete at the net will retreat as the ball is slapped by the attacker, working on turning and running while keeping the eyes on the attacker and getting stopped before contact.

The ball can be hit to the following spots:
- Short
- Deep over the head
- Hard at the face
- Either side of the body

The blocker can also practice retreating into the angle.

The resulting dig can be caught or played out with extra players.

**MODIFICATIONS:**
- Have the blocker practice moving across from the angle and jumping back toward the line shot.

**TEACHING POINTS/KEYS:**
1. Coach should reinforce correct ready position and posture for the blocker.  
   *(Key 1)*
2. Athletes should focus on opening up the hip and running away from the net while keeping eyes on the hitter.
3. The retreating should to be stationary and balanced as the ball is being hit.
**Equipment:**
Ideal: 6-10 balls  
Minimum: 2 balls per group

**Participants:**
Ideal: 3 athletes + coach observing  
Maximum: 12 athletes + coach observing  
Minimum: 2 athletes + coach assisting

**PURPOSE:**
This drill focuses on developing the ability of the blocker to turn after landing, get feet to the ball, and produce an effective transition set off of a dug ball.

**DESCRIPTION/DIRECTIONS:**
An athlete or coach drives the ball past a blocking athlete who is at the net. The ball should be struck at a defender who is set up in the back row.

The blocking athlete will land from the block, turn and hustle to the dug ball attempting to get around the ball and square up to the net to set the digging athlete, who is now transitioning to the net to attack.

With a team on each side this drill can be turned into a continuous drill with angle attacks. In the diagram to the right, the blocker is taking the line and the defender is digging the angle attack.

**MODIFICATIONS:**
- Have the blocker block the angle and the defender set up to dig the line attack.
- Hit the ball into the block occasionally to ensure the the blocker’s maintain correct blocking form.

---

**TEACHING POINTS/KEYS:**
1. Coach should reinforce correct ready position and posture. *(Key 1)*
2. Athletes should focus on reading hitter’s angle of approach and their shoulders before keying in on the ball while blocking. *(Key 2)*
3. Coaches should remind athletes to get arms and hands over the net in the correct position. For angle blocks, it is important to not let the hands get too far apart from each other. *(Key 3)*
**Figure 5-7. Block - Jousting Drill**

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 6 balls</td>
<td>1 Coach should reinforce correct ready position and posture. <em>(Key 1)</em></td>
</tr>
<tr>
<td>Minimum: 1 ball</td>
<td>2 Athletes jousting should focus on locking the arm from shoulder to wrist, as this will force the opposition to act against the weight of the whole body, not the force of the elbow bend.</td>
</tr>
<tr>
<td></td>
<td>3 Athletes should time their jump so they have the last push on the joust. This will increase the likelihood of winning the joust.</td>
</tr>
<tr>
<td></td>
<td>4 Using one arm will reach farther than two.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 4 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Maximum: Up to 6 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 2 athletes + coach assisting</td>
<td></td>
</tr>
</tbody>
</table>

**PURPOSE:**
This drill allows athletes to practice the skill of jousting at the net on balls that are played tight.

**DESCRIPTION/DIRECTIONS:**
The drill begins with an athlete or a coach tossing a ball on top of the net for two athletes at the net who will joust to win the point.

With 3 athletes one could be a setter who comes in from the passing position and over-sets the ball to create a joust opportunity.

**MODIFICATIONS:**
- Have athletes joust from all areas of the net.
- Each blocker could have a partner in the backcourt, and the drill can be turned into a game in which the tossed ball initiates game play.
Figure 5-8. Individual Defense - Coach Hits at One Line

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 6-10 balls</td>
<td>1 Athletes should be reminded of ready position &amp; posture (Key 1, Ind. Defense).</td>
</tr>
<tr>
<td>Minimum: 1 ball</td>
<td>2 Athletes should read the attacker’s shoulders and arms, then react to the hit ball based off of the attacker’s body language (Key 2, Ind. Defense).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
<th>3 Remind athletes where they should be digging the ball, high and to the middle of the court. 20 feet high and 10 feet off the net! (Key 3, Ind. Defense).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 4-6 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Maximum: Up to 8 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 1 athlete + coach assisting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE:</th>
<th>DESCRIPTION/DIRECTIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This drill allows athletes to practice the whole skill of individual defense with very little contextual interference.</td>
<td>The drill begins with an athlete or a coach (on the net) tossing a ball in the air and then attacking at an opposing digger across the net. The athlete will dig the ball and then move to the end of the digging line. Extra players may shag and hand balls to the attacking coach or athlete. Have the group of athletes perform 10 playable ups and then switch three new athletes into the drill.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>● Attack from all areas of the net and to both sides of the court.</td>
<td></td>
</tr>
<tr>
<td>● Mix up the attack selection with short, deep and lateral shots, as well as off-speed or hard-driven attacks.</td>
<td></td>
</tr>
</tbody>
</table>
### Equipment:
Ideal: As many balls as available  
Minimum: 3 balls

### Participants:
Ideal: 4 athletes + coach observing  
Maximum: Up to 8 athletes + coach observing  
Minimum: 3 athletes + coach assisting

### Purpose:
This drill develops the ability of an athlete to defend the hard driven ball and chase down the soft line shot in a game specific manner.

### Description/Direcitions:
In this drill an attacker (A) tosses to a setter (S) who sets up the attacker. The attacker hits a hard angle spike or a soft line shot over the blocker (B). The defender (D) prepares to dig the hard angle spike or chase down the line shot.  
The dug ball could either be caught or played out by the blocker.  
After catching the ball analysis of dig quality can be made as well as the positioning of the blocker in preparation for the set.  
Repeat for set number of reps, then switch positions.

### Modifications:
- Have the blocker block angle and the digger dig the hard line spike.  
- Have the defender (D) serve before coming in to play defense.  
- Increase number of reps in a row by defender to add fitness element.

### Teaching Points/Keys:
1. Athletes should be reminded of ready position & posture (Key 1, Ind. Defense).  
2. Athletes should read the attacker’s shoulders and arms, then react to the hit ball based off of the attacker’s body language (Key 2, Ind. Defense).  
3. Remind athletes where they should be digging the ball, high and to the middle of the court. 20 feet high and 10 feet off the net! (Key 3, Ind. Defense).
Figure 5-10. Individual Defense - High Ball Defense

<table>
<thead>
<tr>
<th>Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 2-5 balls</td>
</tr>
<tr>
<td>Minimum: 1 ball for each pair</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Athletes should be reminded of ready position &amp; posture (Key 1, Ind. Defense).</td>
</tr>
<tr>
<td>2 Athletes should watch the hitter’s arm to better anticipate where the ball may be going (Key 2, Ind. Defense).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 2 athletes + coach observing</td>
</tr>
<tr>
<td>Maximum: Up to 8 athletes + coach observing</td>
</tr>
<tr>
<td>Minimum: 1 athlete + coach assisting</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This drill allows athletes to get high repetitions of balls hit high at head level with low contextual interference.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION/DIRECTIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The digger (D) starts with their back to the net.</td>
</tr>
<tr>
<td>A coach or athlete (C) hits the ball at the athlete within 1-2 feet of their face and the athlete attempts to catch the ball (think soccer goalie catching a shot).</td>
</tr>
<tr>
<td>After catching the ball they can give it back to the attacker for another repetition.</td>
</tr>
<tr>
<td>The drill is done at the net so that any missed balls land directly in the net.</td>
</tr>
<tr>
<td>The athlete advances to catching and throwing the ball up in one motion.</td>
</tr>
<tr>
<td>Finally, the athlete starts directly in front of the hitter and as the hitter slaps the ball the defender retreats towards the net and digs the ball hit at their face (bottom court).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Mix up attacks between hard driven balls and soft shots, forcing the defender to use the tomahawk or knuckle technique.</td>
</tr>
</tbody>
</table>
Figure 5-11. Individual Defense - One Arm Digs

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 6-12 balls and a bench or box</td>
<td>1 Remind athletes to maintain ready position &amp; posture (Key 1, Ind. Def).</td>
</tr>
<tr>
<td>Minimum: 4 balls</td>
<td>2 Athletes must be reminded to move forward to the ball.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 2 or 3 athletes + coach observing</td>
<td>Maximum: 4 athletes + coach observing</td>
</tr>
<tr>
<td>Maximum: 4 athletes + coach observing</td>
<td>Minimum: 1 athlete + coach assisting</td>
</tr>
</tbody>
</table>

**PURPOSE:**
This drill allows athletes to get high repetitions digging balls hit just outside of two-handed dig range in a setting with low contextual interference.

**DESCRIPTION/DIRECTIONS:**
In this drill a coach or athlete (C) attacks balls to areas of the court that are just outside of the defender’s (D) immediate reach.

- The areas that the attacker may hit within are indicated by the two dotted lines.
- The defender must move to the ball and attempt to play it up using one arm.
- Have each athlete perform a set number of successful one-armed digs in a row (3-5) before rotating out.

**MODIFICATIONS:**
- Have the defender serve a ball and then run into the court to add a more game-like effect.
Figure 5-12. Individual Defense - 2 Person Dig to Attack Drill

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
</table>
| Ideal: As many balls as available  
Minimum: 3 balls | 1 Remind athletes to maintain ready position & posture (Key 1, Ind. Def). |
| | 2 Athletes need to read the attacker, then react to the hit ball (Key 2, Ind. Def). |
| Participants: | 3 Athletes must be reminded to dig the ball high and forward, as this will allow the attacker more time to move under the net and get in position to set the dug ball (Key 3, Ind. Def). |
| Ideal: 3 athletes + coach observing  
Maximum: 6 athletes + coach observing  
Minimum: 1 athlete + coach participating | |

**PURPOSE:**
The purpose of this drill is to allow 2 athletes who have no other individuals to train with the opportunity to get game-like defense and transition practice.

**DESCRIPTION/DIRECTIONS:**
In this an athlete (A) attacks the ball over the net off their own throw or toss to a partner who is positioned in defense (D) on the other side of the net.

After spiking the ball at the defender the attacking player must sprint under the net and prepare to set the dug ball up to the defender for a transition attack.

**MODIFICATIONS:**
- Have the defender serve a ball and then run into the court to add a more game-like effect.
- The attacker/transition setter should make a call to their partner as to where they would like the ball to be hit.
Figure 5-13. Individual Defense - 2 Person Dig to Attack Drill

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
</table>
| Ideal: 5-10 balls  
Minimum: 1 ball | 1. Athletes need to be aware of each other and communicate to effectively balance the court. |

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th></th>
</tr>
</thead>
</table>
| Ideal: 4 athletes + coach participating  
Maximum: 9 athletes + coach observing  
Minimum: 2 athletes + coach assisting | 2. Athletes should be reminded of ready position & posture and stay in a low position when the ball is set so they can move quickly and be in balance. (Key 1, Ind. Def). |

<table>
<thead>
<tr>
<th><strong>PURPOSE:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this drill is to develop court awareness in athletes. It focuses on how the position of the set affects where the ball can be hit and therefore where the defensive players position themselves.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>DESCRIPTION/DIRECTIONS:</strong></th>
<th></th>
</tr>
</thead>
</table>
| In this drill the coach randomly sets the ball to either side of the court to positions (1) or (2) for attacker’s (A) to hit.  
Upon setting the ball the defenders (D) are required to shift either left or right in relation to the position of the set. Players must be reminded that sets pushed past either antennae will take away court from the attacker, as they can not hit around it, but only within.  
The coach can set 4-6 balls to one side, and then switch to the other side. |  |

<table>
<thead>
<tr>
<th><strong>MODIFICATIONS:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>● This drill could be used to initiate a rally with each player getting a chance in sequence to win a point. This will add a game specific feel to the drill.</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 6: Warm-Up Drills

When beginning a training session, it is important to implement an effective warm-up with exercises and activities that will prepare athletes for a high level of performance, reduce the risk of injuries, and prepare athletes for current environmental conditions (Jones & Dalanhese, p. 8). Keeping the motor learning principle of specificity in mind, utilizing warm-up activities with a ball will give athletes more opportunities to practice the skills, tactics, and strategies of the game. Not all activities or exercises need to incorporate a ball, but with limited practice or training time, it is wise to incorporate these game-specific activities.

For beginning athletes, it is important to incorporate exercises that allow the athlete to develop efficient movement patterns and gain a better understanding of environmental conditions. If athletes learn to move properly, the skills of the game will become much easier to master. As the athletes move into intermediate and advanced levels of performance, warm-up protocol can shift to the development of specific skills and injury prevention. At the highest levels of competition, it is vital to maintain a healthy body through effective stretching.

Dynamic stretching with sport-specific movements and ball will best prepare the body for strenuous activity during practice. Little and Williams (2006) conducted a study on the effects of different stretching protocols during warm-ups for professional athletes. Athletes were split into three stretching protocol groups: dynamic stretch, static stretch, and no stretch. Results showed that dynamic stretching during warm-ups, as opposed to static stretching or no stretching, was the most effective for preparation of the high-speed performances required in advanced level sports.
Figure 6-1. Warm-Up - Run/Stretch

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: Volleyball Court</td>
<td>1 Athletes should focus on maintaining an athletic position during movement.</td>
</tr>
<tr>
<td>Minimum: One half court</td>
<td>2 Deliberate practice of specific movements should be emphasized, with feedback on footwork patterns and body position.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 2-3 on each half court</td>
<td></td>
</tr>
<tr>
<td>Maximum: 5 on each half court</td>
<td></td>
</tr>
<tr>
<td>Minimum: 1 athlete</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The objective of this drill is to raise body temperature in preparation for more strenuous activities and to practice specific sand volleyball movement patterns.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION/DIRECTIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Athlete will run to the middle of the court (1); shuffle to one side line and back to middle (2,3); run to net and back pedal back to middle (4,5); shuffle to other sideline and back (6-7); turn and run to end line (8);</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>● After 2 x’s, you can add a sprawl/roll at each side line and the endline.</td>
<td></td>
</tr>
<tr>
<td>● You may also add volleyballs and throw in a dig at each side line and end line.</td>
<td></td>
</tr>
</tbody>
</table>
Figure 6-2. Warm-Up - Block 3’s

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: Volleyball Court</td>
<td>1 Blocker emphasis should be on blocking technique and eye work (BSBH).</td>
</tr>
<tr>
<td>Minimum: One half court</td>
<td>2 Attacker emphasis should be on attack footwork and timing.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 2-3 in each group</td>
<td></td>
</tr>
<tr>
<td>Maximum: 8 athletes in 2 groups of 4</td>
<td></td>
</tr>
<tr>
<td>Minimum: 2 athletes + coach assisting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>PURPOSE:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this drill is to give athletes a high volume of blocking repetitions with focus on hand, arm, and body position.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>DESCRIPTION/DIRECTIONS:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Setter hits at hitter who digs back to setter: setter sets and hitter approaches and dinks or hits into the block. Setter ducks under the net and blocker now becomes hitter and hitter becomes blocker; rotate around so a player becomes the setter after a certain number of balls (ex: 5 balls); another group of 3-4 on other ½ of the court.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MODIFICATIONS:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>● Have athletes start by servin, then coming to the net to block.</td>
<td></td>
</tr>
<tr>
<td>● Have athletes position to block line, then dive into the angle.</td>
<td></td>
</tr>
<tr>
<td>● Have athletes position to block angle, then dive into the line.</td>
<td></td>
</tr>
</tbody>
</table>
Figure 6-3. Warm-Up - Serve & Jog

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
</table>
| Ideal: Volleyball Court  
Minimum: One ball per athlete | 1. Athletes should be working on specific serving keys in an effort to improve their serving.  
2. Encourage athletes to develop a routine. |

<table>
<thead>
<tr>
<th>Participants:</th>
<th></th>
</tr>
</thead>
</table>
| Ideal: 3 or 4 athletes + coach observing  
Maximum: 8 athletes + coach observing  
Minimum: 1 athlete + coach observing |  |

<table>
<thead>
<tr>
<th>PURPOSE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The objective of this drill is to loosen up the body and raise body temperature in preparation for more strenuous activity. It will also increase the athlete’s awareness of how current environmental conditions affect the ball. You can also add particular skill or movement patterns</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION/DIRECTIONS:</th>
<th></th>
</tr>
</thead>
</table>
| Athlete serves and then jogs to the other side of the net to serve again. You can have the athlete perform any movement pattern needing repetition after each serve.  
Athletes may also incorporate dynamic stretching directly after a serve. |  |

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
<th></th>
</tr>
</thead>
</table>
| ● Have athletes jump serve  
● Mark out spots on the court that need to be served into.  
● Have athletes serve 3 in a row. |  |
Figure 6-4. Warm-Up - Pass, Tomahawk, Turn & Dig

**Equipment:**
Ideal: 2-3 balls  
Minimum: One ball for a group of 3 or 4

**Participants:**
Ideal: 2 or 3 athletes per coach  
Maximum: Up to 8 athletes + coach observing  
Minimum: 1 athlete + coach assisting

**PURPOSE:**
The objective of this drill is to loosen up the body and raise body temperature in preparation for more strenuous activity. Additionally, this drill allows athletes to practice three beach techniques: passing the short ball, tomahawk, and turning to pass the ball behind.

**DESCRIPTION/DIRECTIONS:**
**Movement 1:** Athlete (or coach) at the net throws up the ball for the partner to come forward and pass.

**Movement 2:** Person then moves back to tomahawk a ball this is either thrown behind or attacked at the head.

**Movement 3:** A third ball is thrown behind the athlete for them to turn, run, and play the ball.

**MODIFICATIONS:**
- Attack the ball at the retreating athlete.
- Perform drill from center court to allow athlete to run to corners to dig ball.
- Athlete could play out the final ball.

**TEACHING POINTS/KEYS:**
1. Forearm Passing and Individual Defensive keys should be incorporated in this drill.
2. Be sure to have the athletes focus on the hitter’s movement, and not primarily the ball.
Figure 6-5. Warm-Up - Hit/Dig

**Equipment:**
Ideal: 1 or 2 balls  
Minimum: One ball for 2 athletes

**Participants:**
Ideal: Groups of 3 athletes  
Maximum: 9 athletes on ½ court + coach observing  
Minimum: 2 athletes + coach assisting

**TEACHING POINTS/KEYS:**
1. Athletes should be working on specific attack and dig keys during this drill.
2. Encourage diggers to focus on the hitter’s shoulder and arm as opposed to following the ball.

**PURPOSE:**
The objective of this drill is to practice technique for two skills: the attack and the dig.

**DESCRIPTION/DIRECTIONS:**
Athlete at the net hits at partner who digs the ball high to the middle of the court (or to a target specified by coach) to a third athlete who is standing as a target. You may use two balls to assist with the pace of the drill.  
(Top Court – Hit/Dig down the line)  
(Bottom Court – Hit/Dig cross-court)

**MODIFICATIONS:**
- Have athletes hit/dig cross-court and/or line.
- With extra athletes you may have 2 players alternating digging or hitting.
**Figure 6-6. Warm-Up - Dig/Set + Pass/Hit**

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 1 ball per 2 athletes Minimum: One ball for 2 athletes</td>
<td>1 Athletes should be focused on controlling the contacts at a specific height to account for environmental factors.</td>
</tr>
<tr>
<td></td>
<td>2 Encourage diggers to focus on the hitter’s shoulder and arm as opposed to following the ball.</td>
</tr>
<tr>
<td></td>
<td>3 Forearm pass should be high enough to allow the athlete time to get the hitting elbow up and back.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th><strong>PURPOSE:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: Groups of 2 athletes Maximum: 3 groups of 2 athletes on ½ court Minimum: 2 athletes + coach observing</td>
<td>The objective of this drill is to practice technique for four skills: the dig, overhead pass, forearm pass, and attack. Additionally, players are working on controlling the first contact in a balanced position to allow for a better second touch.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>DESCRIPTION/DIRECTIONS:</strong></th>
<th><strong>MODIFICATIONS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The athlete at the net will begin the drill by forearm passing to self (1a) and then attacking the ball at partner (1b). The partner in turn will dig the ball with control (2a) and then move underneath and set the ball back to partner (2b). The dig/set athlete will then move back into position to dig the next ball. Switch athlete assignments after 10 reps.</td>
<td>● Have athletes perform the drill cross-court and/or line. ● With extra athletes you may have 2 players alternating digging or hitting.</td>
</tr>
<tr>
<td>(Top Court – Hit/Dig down the line) (Bottom Court – Hit/Dig cross-court)</td>
<td></td>
</tr>
</tbody>
</table>
Figure 6-7. Warm-Up - Butterfly (One or Two-Sided)

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 6+ balls</td>
<td>1  Coaches should emphasize serving and passing keys during this drill.</td>
</tr>
<tr>
<td>Minimum: 2 balls</td>
<td>2  Encourage passers to stay in correct receiving position.</td>
</tr>
<tr>
<td></td>
<td>3  Forearm pass should be high enough to allow the athlete time to get the hitting elbow up and back.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 9 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Maximum: Up to 18 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 5 athletes + coach observing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The objective of this drill is to loosen up the body and raise body temperature. It will also increase athlete’s awareness of current environmental conditions. Additionally, this drill focuses on serving and passing skills.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION/DIRECTIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>One athlete will begin the drill by serving from the baseline to a passer in front of them on the other side of the net. The passer will pass the ball to the desired target (up and slightly toward center court). Target player will set to self and then catch ball. Players will rotate with the path of the ball: server to passer, passer to target, target to server. With extra athletes you may add a second group on the other 1/2 court.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Have athletes pass from different positions on the court.</td>
<td></td>
</tr>
<tr>
<td>• Have the passer start toward the net or the baseline to work on forward/backward movement patterns.</td>
<td></td>
</tr>
</tbody>
</table>
Figure 6-8. Warm-Up - One on One

**Equipment:**
Ideal: 4+ balls  
Minimum: 1 or 2 balls

**Participants:**
Ideal: 2 or 3 athletes + coach observing  
Maximum: Up to 12 athletes + coach observing  
Minimum: 1 athlete + coach assisting

**Purposes:**
The purpose of this drill is to raise body temperature. It will also increase athlete’s awareness of current environmental conditions. Additionally, this drill will focus on applying correct defensive techniques.

**Description/Direcions:**
The drill starts with one athlete on either side of the net. One side is the “points” side and the other is the “challenger” side.

The athlete on the “challenger” side underhand serves the ball over the net and the two athletes play out the rally using only one touch per side.

The ball must be played with both hands together.

If the athlete on the “points” side wins the rally they score a point. If the athlete on the “challenger” side wins the rally, they move to the points side. Play games to 11 points.

**Modifications:**
- Beginning athletes may catch the ball, then throw back over the net.
- With only two athletes have them stay on the same side and play to a certain number of points then switch.

**Teaching Points/Keys:**
1. Coach should reinforce ready position & posture.
2. Encourage passers to get back to the middle of the court and slightly back for best anticipation and movement to the next attack.
Figure 6-9. Warm-Up - No Jump – Over the Net Pepper

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 2 or 3 balls Minimum: 1 ball</td>
<td>1 Coaches should reinforce digging and setting targets.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
<th>2 Coaches should reinforce attacking keys (reach high and snap).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 4 athletes + coach observing Maximum: 6 or 8 athletes + coach observing Minimum: 3 athletes + coach participating</td>
<td></td>
</tr>
</tbody>
</table>

PURPOSE:
The purpose of this drill is to loosen up the body and raise body temperature. It will also increase athlete’s awareness of current environmental conditions. Additionally, this drill will focus on developing court vision and utilizing soft “shots” to effectively play the ball away from defenders.

DESCRIPTION/DIRECTIONS:
This game has normal scoring and format with one exception: no jumping is allowed.

MODIFICATIONS:
- Have one team attack only line, and one team only angle.
- Allow only two contacts on each side.
Figure 6-10. Warm-Up - Over the Net Pepper – 4 Way

**Equipment:**
Ideal: 2 or 3 balls  
Minimum: 1 ball

**Participants:**
Ideal: 4 athletes + coach observing  
Maximum: 6 athletes + coach observing  
Minimum: 3 athletes + coach participating

**TEACHING POINTS/KEYS:**
1. Coaches should reinforce digging and setting targets, as well as communication.  
2. Coaches should reinforce attacking keys (facing the direction which allows all attacks).

**PURPOSE:**
The purpose of this drill is to loosen up the body and raise body temperature. It will also increase athlete’s awareness of current environmental conditions. Additionally, this drill allows athletes to play volleyball.

**DESCRIPTION/DIRECTIONS:**
This game will be played in normal format, except teams are cooperating in an effort to achieve “X” # of contacts in a row from 4 different court directions.

Players rotate front to back every time the ball crosses the net. You may have players at the net block or stay down and defend.

4-ways:
1. Down line  
2. X-court Lf back to Lf back  
3. X-court rt back to rt back  
4. Down line (other sideline)

**MODIFICATIONS:**
- With 6 athletes, you may have athletes in groups of 3 on each ½ court rotating.
- Have groups switch court sides after “X” # of contacts to get a feel for environmental conditions on both sides of the net.
Chapter 7: Game Specific Drills

Perhaps the most important aspect of any practice session is providing athletes with training that closely resembles what they are training toward, which is real game play. The sooner you can introduce game specific tactics and concepts, the quicker your athletes will learn to perform them when it matters most, during competition. This ties in directly with the motor learning principle of specificity, which states that the best way to improve in a particular skill or sport is by practicing that sport in an environment that closely resembles the result or actual competition.

While most of the drills that have been covered in each of the individual skills sections deal with a “skill-centered” or “drill-centered” approach, this next section covers a variety of drills that involve a “game-centered” approach to sand volleyball. A game centered approach simply means that the activities put in place deal with strategy and tactics of the game, as opposed to a skill-set attempting to be mastered. With a skill-centered drill, techniques are often taught with little transfer to a game-like situation. This is good when learning a skill, but the ultimate goal is to replicate competition, and one must be put into game-centered environments in order to employ the correct strategies and tactics necessary to win.

Game centered drills should be introduced with the idea of giving multiple opportunities to practice a tactic or strategy that may be used in competition. This is done by modifying a regular game with rules and adding additional rallies for athletes so that they must win more than one rally to earn a point.
Figure 7-1. Game Specific Drills - Monarch of the Court

**Equipment:**
Ideal: 10+ balls  
Minimum: 4 balls

**Participants:**
Ideal: 6 athletes + coach observing  
Maximum: Up to 8 athletes  
Minimum: 3 athletes + coach participating

**TEACHING POINTS/KEYS:**
1. Athletes need to be reminded to serve to score, meaning they should look for weaknesses in the receiving team and attack them.
2. If the “no missed serves for points” rule is in effect, athletes need to be reminded to serve tough, as there is no potential penalty.

**PURPOSE:**
The purpose of this drill is to replicate the game as closely as possible, but with more than just two teams. It is ideal for getting lots of repetitions among 6-8 athletes on the court.

**DESCRIPTION/DIRECTIONS:**
One side of the court is the “points” side and the other side is the “challenge” side.

Teams will serve from the “challenge” side, and if the serving team wins, they move to the “points” side. If the team on the “points” side wins, they get a point, and a new team steps in to serve from the “challenge” side.

Teams can only earn points when receiving on the “points” side.

You can also design the drill so that the “points” side must lose twice before they are out.

**MODIFICATIONS:**
- The “points” side must earn two points in a row to stay, one from the serve, and another ball chipped in by a coach.
- Missed serves do not count as points for the receiving team.
Figure 7-2. Game Specific Drills - The Weakest Link

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 2-3 balls</td>
<td></td>
</tr>
<tr>
<td>Minimum: 1 ball</td>
<td></td>
</tr>
<tr>
<td>1 The coach can begin by helping evaluate who the weakest link is after each error, but ultimately the goal is to allow athletes to figure out who made the mistakes.</td>
<td></td>
</tr>
<tr>
<td>2 Encourage athletes to constantly “better the ball” as this will minimize their likelihood of making an error.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 6 athletes + coach observing</td>
</tr>
<tr>
<td>Maximum: Up to 8 athletes</td>
</tr>
<tr>
<td>Minimum: 3 athletes + coach participating</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this drill is to replicate competition and allow athletes to play with multiple partners. It also teaches to athletes to become accountable for errors within the game and work to correct those mistakes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION/DIRECTIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletes on the court begin to play a normal game with extra athletes waiting off on the side.</td>
</tr>
<tr>
<td>At the end of each rally the player who ended the rally with an error or mistake is off, and the player waiting on the side tosses a new ball in to begin play.</td>
</tr>
<tr>
<td>More times than not, the cause of the error may be made by more than one athlete, but this drill allows athletes to differentiate the most significant error that led to the lost point.</td>
</tr>
<tr>
<td>Winning athlete earns a point every time they stay on. Play to a certain number of points.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Have each athlete start with 10 points, and move backwards to zero on every mistake.</td>
</tr>
</tbody>
</table>
Figure 7-3. Game Specific Drills - No Block Volleyball

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>TEACHING POINTS/KEYS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 2-3 balls</td>
<td>1 Athletes need to be reminded of <em>individual defense keys</em>, such as getting stopped and low before the hitter contacts the ball to help move to balls hit away from them.</td>
</tr>
<tr>
<td>Minimum: 1 ball</td>
<td>2 Athletes need to pay close attention to the hitter (hitter’s shoulder, approach speed, attack history) to better anticipate what their intentions are during the attack.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 4 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Maximum: 6-8 athletes (monarch format)</td>
<td></td>
</tr>
<tr>
<td>Minimum: 4 athletes + coach observing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this drill is to practice defensive situations where there is no block and athletes must dig the open net attack.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION/DIRECTIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletes play a regular game with the only exception being that no athlete can jump to attack in front of a line that is drawn on both sides of the court 8 feet from the net.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODIFICATIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>● Move the line to 6 feet from the net.</td>
<td></td>
</tr>
<tr>
<td>● Make the game only 2 touches per side.</td>
<td></td>
</tr>
</tbody>
</table>

![Diagram of court with lines indicating no block area and positions for players.]
Figure 7-4. Game Specific Drills - Add up the Score

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 4 balls</td>
<td>1. Athletes need to be reminded to maintain correct technique, especially for the receiving player, as fatigue will set in with each and every continuous rally.</td>
</tr>
<tr>
<td>Minimum: 1 or 2 balls</td>
<td>2. Athletes need to learn to deal with the added element of pressure that arises from being served continuously and called upon to score a point.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 4 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Maximum: 6 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 4 athletes + coach observing</td>
<td></td>
</tr>
</tbody>
</table>

| **PURPOSE:** | 
|----------------|------------------|
| The purpose of this drill is to allow athletes to compete against each other in a normal game setting, and also to allow players multiple opportunities to receive serve. This will help to add the element of pressure on the receiving player. |

| **DESCRIPTION/DIRECTIONS:** | 
|-----------------------------|------------------|
| The game is played with normal scoring and rules with the exception that each athlete on the court gets served until they lose a rally. |
| Player 1 will receive serve until a rally is lost by player 1, then player 2 will get the next opportunity to receive and score. This repeats until all 4 players have had a chance to score, then start back at 1. |
| Each player should have an equal opportunity to receive serve and score points. |
| Athletes add up their scores when it is their turn to receive and they earn a point. The first player to 15 points wins the game. |

| **MODIFICATIONS:** | 
|-------------------|------------------|
| ● You may give two points if athletes score with a certain type of shot or attack. |
| ● Missed serves do not count as a point for the receiver. The coach or an extra athlete may enter a ball to be played after a missed serve. |
**Figure 7-5. Game Specific Drills - Three Ball Wash Drill**

<table>
<thead>
<tr>
<th><strong>Equipment:</strong></th>
<th><strong>TEACHING POINTS/KEYS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 4 balls</td>
<td>1 Athletes need to be reminded to maintain correct technique, as this can be a very physically demanding drill.</td>
</tr>
<tr>
<td>Minimum: 1 or 2 balls</td>
<td>2 Athletes need to be reminded to focus on the current rally, and not think far ahead to the upcoming rallies that may ensue. Keep the focus in the present.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: 4 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Maximum: 6 athletes + coach observing</td>
<td></td>
</tr>
<tr>
<td>Minimum: 4 athletes + coach observing</td>
<td></td>
</tr>
</tbody>
</table>

**PURPOSE:**
The purpose of wash drills is to add extra opportunities to score within each rally. This gives athletes high repetitions in specific skills that may need work, and helps to build endurance that exceeds that of actual competition.

**DESCRIPTION/DIRECTIONS:**
The wash drill should be initiated with a serve and rally. When the rally ends, the coach will add a new ball (to the same team that received serve) which will be played out, and at the end of the 2nd rally, the coach will add a third ball. If a team wins 3/3 rallies, they earn 2 big points. Win 2/3 rallies and earn 1 big point. Play to as many big points as needed.

Three ball wash ideas:
- Serve, Free Ball, Down Ball
- Serve, Dig, Joust
- Serve, Pull and Dig, Pursuit Dig

Teams will alternate serving until one side earns a set number of points, say 15.

**MODIFICATIONS:**
- After the initial serve and rally, you can throw the second ball to the serving team.
- Add or subtract the number of rallies it will take to earn a big point. You may fluctuate from 2 rallies up to 5 rallies within a single wash.
CHAPTER 5

Discussion

The landscape of sports is constantly shifting, with recent interest being sparked in the form of sand sports. Nowhere is this more prevalent than with sand volleyball. Since its inception in the 1996 Olympic Games in Atlanta, sand volleyball has shown increases in participation at almost every level of play, and there are no signs of slowing down.

While there has been a noticeable rise in participation for sand volleyball, there is still more room to grow the sport through research, literature, and skilled instruction. The days of just “rolling the balls out” for players to play have come and gone, and research on motor learning applied to sports settings has allowed practitioners to develop better methods of instruction that have been proven to be effective. By utilizing proven teaching methods, instructors can help athletes better understand the information being presented and ultimately learn and apply that information in a game-specific environment.

Motor learning principles are a driving force behind pedagogy, and the same can be said for sport pedagogy. The research for this project is intended to help practitioners design effective practices, since this is the time when a vast majority of learning will occur with any sport.

This sand volleyball drill manual project was fortunate enough to be utilized during the Fall 2011 semester on students at Santa Barbara City College. Students were enrolled in a beginner beach volleyball class, and were taught each of the fundamental volleyball skills through the use of instructional keys and teaching points. Drills from the
manual were implemented through skill progressions that were introduced at the pace of the learner. Each class session started with warm-up drills focused on a specific skill or tactical strategy that was the focus point for the particular class session. Once students were able to grasp the skill and show proficiency in a low contextual interference environment, they were put into game-specific drills with appropriate feedback directed toward the specific teaching point for that class session. No specific data was collected to test retention, but end of semester feedback from students concluded that the specific keys were very helpful in the learning process with each skill. Retention of each key was also evident with passing final exam scores.

This manual was also reviewed by coaches in the Santa Barbara area who are considered to be experts in the sand volleyball field. Based on this peer-reviewed feedback, there were several important suggestions that would help to improve the current structure of the sand volleyball drill manual.

Because motor learning research states that one will have an easier time learning a new skill when there is an example or demonstration of the skill being performed, illustrations coupled with each key would be appropriate to include in each section.

Another idea would be to incorporate a step by step video or DVD which contains an expert demonstration of each skill being performed with specific focus on each key or teaching point, as well as expert demonstrations of the drills within each chapter. Incorporating demonstrations would help both practitioners and athletes better grasp each skill because the mental image created from watching an expert perform the skill would be ideal in the learning process.
Additional feedback from sand volleyball coaches stated that it would be beneficial to provide a section that contains functional examples of effective practice plans that incorporate minute-by-minute lesson plans for practices. This section could include daily plans that would introduce the focus or concept for the day, and then include warm-up drills, fundamental skill drills, and game-specific skills with feedback directed toward the specific focus or concept for that practice. Each practice plan would include the amount of time allotted for each drill, specific goals for the drill, and an area for instructor notes that would allow the individual running the practice to go back and review the plan to see if drills worked or didn’t work.

This manual is designed to be a resource for new and experienced coaches for all levels of sand volleyball play. By integrating the literature regarding motor learning principles as well as skill- and game-specific drills, many coaches may find the material helpful in improving their background knowledge of the game.
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