



JUNIOR OLYMPIC VOLLEYBALL CLUB

FOUNDATIONS OF COACHING SKILLS AND DRILLS

Do you want to use the best and most efficient way to teach a skill? There are many teaching methods for motor learning out there. What you need is one that is proven to have the best retention value and provides the most success.

Many motor learning experts believe the motor program is a type of central representation (an image in the mind) that controls actions and movements. So, the actions and movements of volleyball players (serving, passing, spiking, etc.) are controlled by their motor programs. Obviously, making certain athletes develop effective motor programs is one of the most important tasks facing coaches.

What we have found from research and from observing our own teams is that the best way to teach a skill is by:

- Using a correct example in a demonstration (by putting an image in players' minds).
- Having players practice that skill and giving immediate feedback using a few important cues.
- Practicing the skill in a very simplified drill with many repetitions.
- Placing the skill in a gamelike situation where it is repeated many times, but randomly.

This is the simplified version. To delve deeper into methods of developing motor programs and skills, it will help if we examine the issues of specificity versus generality; transfer; whole versus part practice; state-dependent remembering; and random versus blocked practice.

SPECIFICITY VERSUS GENERALITY

Does general athletic ability really exist? Modern physical educators no longer accept the notion of general athletic ability. Instead, they believe abilities are specific to the task or activity. The evidence shows coordination and ability are specific to the task or activity.

TRANSFER

How much will the pepper drill (two players hitting back and forth) help backcourt defense? If the conclusion that motor programs are very specific is accepted then there will not be very much motor transfer from task to task. Two-person pepper might not transfer very much to backcourt defense. The research is very clear. The game teaches the game. The more gamelike a drill, the more transfer will occur.

WHOLE VERSUS PART PRACTICE

Should your players practice all of the spike or only part of the spike? In spiking, the whole is the approach, the jump, the arm swing or contact of the ball, and the recovery. A part might be the approach or just the arm swing. It is possible to say that if motor programs are specific and if there is not much transfer between various tasks, then when we are trying to develop a motor program, whole practice should be better than part practice.



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STATE-DEPENDENT REMEMBERING

What things do our athletes remember? Cognitive psychologists have shown that remembering is very state dependent. Meaning, when a person learns something and it becomes part of memory, information about the mood of the learner and the surrounding environment is also stored in memory. Performance is significantly better when the mood of the learner and the environment in which the performance must occur matches the mood and environment in which learning occurred. Again, the game teaches the game. No wonder an inexperienced athlete has great difficulty performing before a large audience. No wonder there is a home-court advantage.

RANDOM VERSUS BLOCKED PRACTICE

Should practice be blocked or random? In other words, should there be variability in practice? Armed with the knowledge of specificity, little transfer, the superiority of whole practice, and the state dependency of learning and remembering, it seems logical to make one last prediction. Drills that introduce the variability we normally find in a game (this would be random practice) transfer better to game conditions than drills where the trials are blocked. For instance, the forearm pass is an essential volleyball skill but it is often practiced in a situation where the ball comes from the same place and goes to the same place. This would be blocked practice. Lots of successful repetitions occur in this type of practice. However, the skill is rarely performed under such controlled conditions in a game, so blocked practice does not transfer very well to game conditions. It is clear that players need varied practice situations to prepare them for actual games.

DRILLS

Drills must be gamelike. Drills should be designed to develop specific motor programs. The best passing drills are pass, set, hit (P-S-H), the best setting drills are P-S-H, the best hitting drills are P-S-H, and the best digging drills are P-S-H and dig. Anything less than a gamelike situation has the possibility of introducing artificial situations and complete transfer to the game situation might not occur. When drills are developed, the teacher should carefully consider the way the skills are performed in a game to determine the drills are as close to the game as possible. To ensure gamelike drills and increase transfer, coaches should consider these factors:

- Players' positions on the court
- Players' movements on the court
- Players' orientation to the net
- The sequence of events and the timing of the sequence
- The stimulus to which players react (a coach standing on a box or chair is not the stimulus a player will have to react to in a game)
- The natural termination of the ball in play (let most rallies come to a natural termination; don't catch the ball)



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REDUCING INFORMATION OVERLOAD

One of the most important concepts of motor learning is that learners have a limited ability to process information. Coaches can facilitate learning by reducing the amount of information they present when they are introducing a goal. If you present a great deal of information all at once, your athletes will not be able to remember most of it. Many volleyball coaches talk too much. They know so much about volleyball and they want to share all their knowledge with their athletes. Other coaches may not know so much but they still like to talk. When you are talking, your athletes are receiving more information than they can handle and they are also not practicing. There are two main elements coaches must employ when presenting goals to make certain they don't talk too much or give their athletes too much information to process: demonstration and cues.

DEMONSTRATIONS

Motor learning studies have found that movement information is retained in memory in the form of an image. Therefore, it makes sense to give the information in the form of an image in the first place. A demonstration will provide the image. Other work has shown most tasks are learned at a faster rate when repeated demonstrations are shown.

CUES

Demonstrations alone are not enough. Researchers have discovered that learners will attend to task-irrelevant information when their attention is not directed. One way to help overcome this problem and improve learning is to use keys, or performance cues (cues are short, concise instructions given by the coach to the athlete). Cues serve at least four very important purposes. They are:

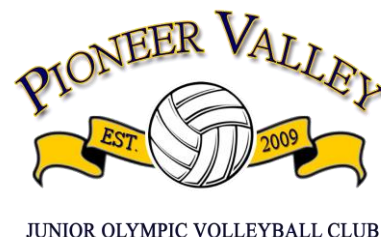
1. Condense or chunk information
2. Reduce words, thus reducing information processing requirements
3. Encourage athletes to attend to important elements of the skill
4. Enhance memory

A very important part of coaching is deciding which cues to use to teach the skills of volleyball and the order in which they will be presented. There is some evidence that more successful teachers make better decisions about using cues than less successful teachers do. It is also important to combine the demonstrations and the cues into an effective teaching method.

TEACHING METHOD

If coaches realize their athletes have a limited ability to process information, they will be concerned about presenting the right amount of information at the right speed. Because words have little meaning to beginners, coaches must avoid constant talk and keep learners active. Remember, athletes learn best by seeing and doing. One way to get athletes to see and do is to follow a method of goal presentation that includes the following steps:

1. Demonstrate the skill
2. Have athletes attempt the skill so you can assess their abilities and determine what cues need to be given. (If the coach already knows the abilities of the athletes, these first two steps can be omitted.)



3. Demonstrate the skill with attention focused on the cue
4. Let the athletes practice and give them feedback about the cue
5. Demonstrate the skill with attention focused on the next cue
6. Let the athletes practice again and give them feedback on the new cue
7. Repeat the process until all cues have been covered

It is difficult for coaches to know how to choose cues, how to present them in the proper order, and how to give the right amount of information at the right speed. Coaches usually agree on the concepts, but they seldom agree on the cues or the order in which they should be given. Here is an example from our experience. When we teach forearm passing to beginners, we have five cues we want them to learn, and they come in this order:

1. Wrists and hands together
2. Straight and long arms
3. Face the ball, angle the arms
4. Shuffle
5. See the server, see the spin

Most skills can be taught with four cues or less. Continue to work on each successive cue until the athletes have experienced some success at each.

KEYS TO TEACHING SKILLS

1. Pre-assess (ask or have players perform the skill)
2. Briefly state the objective and the reason why the skill is important. Don't talk longer than 30 seconds
3. Give three to five full demonstrations
4. Give one cue for the players to focus on
5. Practice. Give players many opportunities to touch the ball
6. Give specific feedback on the cue - tell players what they did right or re-emphasize what you want them to do
7. When players have mastered the first cue, give the second cue, repeating the process until all cues have been given
8. Use gamelike drills - pass, set, hit, and so on
9. Add scoring, targets, goals, or combination of the three in each drill

KEYS TO BEING A SUCCESSFUL TEACHER

1. Do not allow any of your players to talk while you're teaching. It displays a lack of respect for you and what you are teaching. Also, others get involved in the conversation or can't hear because of it.
2. Do not allow bouncing or tossing of balls or other distractions while you are teaching. Players' attention will be diverted.



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3. Corner or line the players up so they aren't scattered all over and you can give them cues or instructions.
 - a. When you gather your team, put your back toward a wall so the players have no choice but to focus on you. Not what else might be going on in the gym.
 - b. Try to teach new skills or concepts toward the first half of practice. Players have more energy and a longer attention span during the first part of practice time, allowing for better retention.
 - c. Practice success. When teaching a new skill, put your players in a drill situation where they are assured of having some success, such as moving up to serve or lowering the net to spike (if they are young).

KEYS TO TEACHING SUCCESSFUL DRILLS

1. Always have consequences and be sure to follow through.
2. have a goal you are trying to achieve.
3. Have a specific purpose.
4. Try to make sure no one is out of the drill longer than two minutes.
5. Use more than one skill.
6. Use gamelike drills (pass, set, hit).
7. Change the drill by changing the way points are scored (this can change the focus).

If you incorporate these seven keys into each drill you teach, more will be accomplished in a shorter time. You should see motor skill transfer increase and players will be internally motivated.

SUMMARY

Now that you have the fundamentals of the whole teaching process of volleyball you will find your players' skill will progress further during the season and they will enjoy the game more along the way. You have discovered that demonstration is the best way to teach a new skill and using a few simple cue words to emphasize key actions is the most helpful teaching tool to use. You now know the best way to warm up and condition for volleyball is by playing volleyball and by doing this your team members receive 100 percent transfer of skill.