

ATHLETICS PORTFOLIO

In my portfolio I am doing about the shot put and the triple jump. I chose these because they are two of my best events. During my portfolio on the events I will be writing about technique, progressive practices, training, stars who influenced me to do these events, rules and tactics and finally a risk assessment on the two.

SHOT PUT (Right handed thrower)

How to perform the shot put

When introducing the shot put to the beginner, the instructor should teach the student to balance the shot in his hand so it is resting at the point where the fingers are connected to the palm of the hand. Many beginners tend to wrap their fingers around the shot and grab on to it like holding cricket ball.

Throwers should also be instructed to keep their fingers together and allow their thumb to gently rest against the side of the shot that opposes the other four fingers. Once the proper grip has been established, the thrower is ready to learn how to place the shot in a position to be thrown.

The shot should be placed underneath the jaw, roughly one inch in front of the ear. The hand should be pressing the shot against the neck to support it in this position. It is very important that the throwing hand is **behind** the shot and not underneath it. Having the throwing hand behind the shot allows the thrower to release the implement away from the chest in the same manner one would push a weighted bar away from the chest while bench pressing. Many beginners tend to put their throwing hand **underneath** the shot in an effort to support and control it. This should be discouraged since it will either cause the thrower to push the shot in an upward manner upon release, causing the release angle to be too high, or the thrower will "drop" his elbow upon release, resulting in a great loss of power. The expression 'clean palm - dirty neck' should be taken into consideration.

Other technical details a coach should look for in the stand throw position are:

- The head is looking out the back of the ring with the eyes focused on a spot that is roughly 15 feet behind the back of the ring.
- The left arm is relaxed and gently reaching downward toward the back of the ring.
- The right foot is facing out the side of the shot ring with the weight balanced on the ball of the foot. The heel should not be touching the ground.
- The back of the thrower should be facing the throwing sector.
- The left leg is relaxed and slightly flexed in anticipation of bracing for a shift of weight from the right leg to the left leg. The heel should not be touching the ground.

- The thrower's head should always face straight out from the chest. It should not be thrown to the side. Upon release, the head may be thrown straight back to allow the chest to rise up so the shot may be lifted.
- The thrower should start off throwing from a "non-reverse" position, i.e., his feet, hips, chest, and head face the throw after releasing the shot. This is to insure that the thrower is fully extending his arms and legs completely before release so he can "push" on the shot as long as possible. The longer the push on the shot, the more the shot will be accelerated.
- At the completion of the throw, both toes should be facing the throwing sector.

Progressive practices

I was first taught shot put in year 7. We were first taught how to throw the shot from a standing position along with how to hold it, 'Clean palm -dirty neck', was the main point that came across. I have then progressed from here by practicing in athletics club and P.E lessons e.t.c.

Techniques

The two main techniques in a fully progressed shot putter are the glide and the rotation, but which is better. **GLIDE VS. ROTATION**

Both the glide and rotational techniques have their merits and their drawbacks. The glide technique is probably a little easier to teach and to perform for the majority of athletes. I think it is a good starting technique for all shot-putters, even if they know they are eventually going to want to be spinners. In teaching throwers, I think that it is essential that they hit the proper **power position** and that they develop the proper release positions. For this reason, the glide technique, in my opinion, allows the beginner to achieve these positions with greater ease. Once these proper positions become established, the thrower can advance to the rotational technique. I feel it is much more difficult for a thrower to hit a good finish using the rotational technique, since it requires more intricate **timing** than the glide technique.

The question as to what type of technique each individual thrower should perform has been raised many times. The answer to this question is basically: it depends on the thrower. Gliders generally appear to be the taller and rangier type of thrower, while the spinners tend to be a little shorter and compact. It is sometimes hard for the larger throwers to turn in such a small space as a shot ring, so they choose the glide technique. The rotational technique, on the other hand, is usually used by smaller throwers who are trying to use rotational speed to compensate for short levers. There are exceptions in each case. Randy Barnes and Augie Wolf are examples of tall throwers who spin. Mike Spiritoso of Canada was a shorter thrower who glided. The bottom line, though, is using what works best.

The following is a typical throwing workout schedule for an intermediate thrower (who spins) during the competitive season -

Monday: 7 stand throws, 5 half-turns, 10 step-ins (to work on the right foot pivot), 5 full throws. 27 throws total.

Tuesday: No throwing; just conditioning.

Wednesday: 5 stand throws (easy), 3 half-turns (easy), 3 South-Africans (easy), 5 full throws (easy). Easy workout, concentrating on a smooth flow from position to position to get ready for the meet. 16 throws total.

Thursday: Competition.

Friday: Same workout as Monday; still concentrating on the right foot pivot in the middle of the ring.

Rules and tactics

One rule in the shot put is that you should always enter and exit from the back of the circle. When in a shot put competition you may choose to put all your effort into your first throw to get an early lead, or hold back and give a false impression to those you are competing against and put all your effort into a final throw at the end, you may also go flat out for every throw.

Risk assessment

Deaths have been recorded in the past among throwers and spectators. This does not mean throwing has to be a hazardous activity; only that throwing is like crossing a street. No one would walk a busy street blindly without looking both ways. Similarly, any athlete in the vicinity of throwing workouts or competition must be observant. In terms of liability for a coach, he/she must let the throwers know serious injury and death are a possibility. Yet, with proper caution being exercised, no one should suffer a scratch. To prevent injury from occurring you must also check that the area where the athlete is performing is clear and free of hazards e.g - glass e.t.c. It is also important that a thrower is not attempting something out of their means. E.g - a year 7 pupil should not attempt using a full sized shot put and should use a smaller version.

TRIPLE JUMP

Performing the triple jump

The Triple Jump requires speed, power, rhythm, balance, flexibility, concentration, and body awareness. The triple jump has been referred to as 'POWER BALLET'.

It is best to start out with the basic movements by having your athletes Hop, then Step, then Jump from a standing start. The take-off foot should be the athlete's strongest leg due to the fact it will be used for the Hop and the Step, or determined by the athlete's preference. The jumper should concentrate on an even rhythm for each landing. The foot strike of the Hop and Step should be flat or full-footed, with the landing leg knee bent slightly in preparation for take-off.

Break the jump into its component phases. Teach the hop phase by having the athlete do a walking one-legged hop several times, then incorporate the circling action of the hop leg. Follow this with multiple one-legged hops with a circling leg, flat landing, and upright posture.

After learning the Hop, move onto the Step and Jump phases. Consecutive bounds duplicate the step and jump actions. The jumper should do these with a double-arm action and land full-footed. The desired distance of each bound should be the Hop 35%, the Step 30%, and the Jump 35% of the total jump.

Next combine the three phases of the jump. Start with Hop and Step combinations on grass. Stress carrying momentum from the Hop into the Step. Finally, add the Jump phase. Again, emphasize carrying momentum from one phase to the next with an even rhythm for each phase. While learning the event, stress the desired percentages in each phase of the jump. Once the jump phases have been put together, slowly add steps to the run-up in accordance with the athlete's ability to control his speed properly.

The approach run for the Triple Jump is similar to that of the Long Jump. The purpose of both run-ups is to create the greatest amount of speed that can be controlled for that jump. Lack of strength and technique skills will reduce the distance and the amount of speed that can be carried successfully into the jump.

The major difference in the triple jump approach is the transition into the jump. The lowering of the centre of mass in preparation to jump is very slight in the triple jump. The full-footed contact of the penultimate step is eased back and substantial flexing of the leg is eliminated. The athlete runs off the board in an effort to maintain horizontal velocity and minimize the vertical component in the hop. Excessive height on the hop will hinder the jump because the increased absorption time upon landing reduces horizontal speed. Informing your athletes to think of running off the board and not jumping off the board will also help prevent the excessive height. The athlete's eyes should be focused on the rear of the pit for the entire jump, start to finish.

Progressive practices

As with shot put I started to learn triple jump in year 7, however not in lesson time. In lessons we would do the long jump, but after watching Jonathan Edwards in Sydney 2000 I decided that I would like to try the triple jump. Practicing in athletics club where all I would try to do was remember that I had to 'hop, step (skip) and jump'.

The Techniques and Phases

The Hop Phase

The initial phase of the triple jump begins with the athlete running off the board. The athlete should be thinking out and up as they leave the board. The take-off leg is fully extended for a complete push off the ground and the drive leg thigh should be nearly parallel to the ground at take-off, with the knee joint at approximately a 45-degree angle, and the foot relaxed. The foot of the take-off leg will be pulled to the buttocks. The drive leg will then begin to rotate from in front of the centre of gravity to behind it, while the take-off leg begins to pull forward. As the thigh of the take-off leg reaches parallel, the lower portion of the leg extends past the knee, with the foot flexed. Once the leg is extended, the athlete then forcefully drives the entire leg downwards, setting himself up for an active landing. Flexibility is critical here; the greater the angle of extension during flight, the more "AIR" time and greater the Hop.

The Step Phase

The second phase of the triple jump begins as a take-off foot returns to the ground. The take-off leg is fully extended with the drive leg thigh just below parallel to the ground. As the athlete leaves the ground, the take-off leg stays extended behind the centre of gravity with the calf held approximately parallel to the ground through mid-flight. At the same time, the opposite leg drives to waist level where it remains through mid-flight of the Step phase. The angle of the knee joint should be no greater than 90 degrees. As the athlete begins to descend, the drive leg extends with a flexed ankle (creating a long lever) and snaps downward for a quick transition into the third phase. During the Step phase, the athlete is concentrating on riding the step as long as possible. This is usually the weakest of the Triple Jump phases and requires the most coaching.

The Jump Phase

The third and final phase of the Triple Jump is a long jump preceded by a jump rather than a run. The take-off leg (the drive leg in the previous phases) is extended forcefully upon contact with the ground. With the free-leg thigh driving to the waist level again. The arms drive forward and up, and block momentarily when the hands reach face level. The torso should be held erect with the chin up and eyes looking beyond the pit. Once in the air, the legs move into a hang position with both thighs directly below the torso, legs bent at the knees to an angle of 90 degrees or less. The arms are extended overhead to slow rotation with the hands reaching for the sky. This position is

held through mid-flight. The arms then drive forward, down, and back as the legs, simultaneously, swing forward and the thighs rise parallel to the ground. The knees remain bent to take advantage of a shorter lever. When the thighs reach parallel the legs extend rapidly with the ankles flexed and toes pointing up. The athlete holds this position until his heels hit the sand. As the knees collapse, the hips rise and the athlete slides through the sand. The butt has to get dirty for the best results.

Arm Action Through the Three Phases

The use of a single (speed-oriented) or a double (power-oriented) arm action at take-off depends on the athlete's preference. For athletes just being introduced to the triple jump, a single-arm take-off is easier to execute because of its similarity to a running motion. The double-arm method leads to more power at take-off, but novice triple jumpers often reduce their approach speed in preparation, thereby negating the effects of any added power.

In the single-arm method, the arm opposite the free leg drives forward and up, blocking when the hand reaches face level. The angle at the elbow should be between 80 and 110 degrees. The hand should never drive higher than the nose. This position is held briefly until both arms move back in preparation for the next phase.

With the double-arm method, the lead arm crosses slightly in front of the body on the penultimate step. As the take-off step is initiated, the arm pauses next to the body rather than swinging behind as with a normal stride. The arm, as it descends, will bounce off the hip meeting with the trailing arm and both arms work in unison throughout the rest of the jump. As the take-off foot contacts the ground, both arms drive forward and up from the body. The angle of the arms at the elbows will be greater than 90 degrees in order to create a more powerful impulse forward.

There is less need for upward drive with the arms because of the double-arm action. As with the single-arm method, the hands are blocked momentarily at face level and the drive leg is blocked when the thigh nears waist level. However, the emphasis here should be on preserving horizontal speed, not gaining height off the ground. Driving the arms and leg provides the needed vertical impulse off the ground without attempting to jump upward. After the arms have blocked, they are then pulled behind the body in preparation for the Step phase.

When using double-arm method, the coach must make sure the athlete is not loading up before the first phase by cocking both arms back at take-off. Loading only decreases the crucial horizontal velocity.

Foot Strike Through the Three Phases

The transition from Hop to Step, and Step to jump is of utmost importance in maintaining the greatest velocity during each phase of the Triple Jump. This active landing, referred to as pawing, is similar to the foot strike of a tiger,

reaching out, grabbing the ground and pulling it towards him. In an active landing the athlete's leg is extended, the ankle flexed and the entire lever pulled down forcefully striking the ground mid-foot. Upon contact the body rolls forward over the foot onto the toes while pushing off the ground. If the athlete lands stiffly on the heel, a braking action occurs, decreasing velocity and distance, and increasing the chance of injury.

Rules and tactics

Two rules in the triple jump are that you should always jump from either on or behind the boards and exit through the end of the pit, not the sides. When in a Triple jump put competition you may choose to put all your effort into your first jump to get an early lead, or hold back and give a false impression to those you are competing against and put all your effort into a final jump at the end, you may also go flat out for every jump.

Risk assessment

Major risks when doing triple jump in school are impleme nts in the sand pit. This can range from excrement to bits of plastic or glass from dropped litter. It is vial that before performing the jump you check that this is clear. The correct footwear (with laces tied) should also be worn.