

TRAINING THE HORIZONTAL JUMPER

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This article will address training for the long jump and triple jump athletes, but does not feature a full discussion of the technical aspects of these events. The author recommends viewing The Long Jump by Tom Tellez and Triple Jump by Irving "Boo" Schexnayder as primers for study of technical aspects of these events. Both are available on videotape.

It is encouraged for the coach and athlete to begin with a video review session. The coach should prepare video clips featuring performances of a variety of elite athletes. The coach should help the athlete identify commonalities between elite performers within events and between performers in different events. Discussion should feature mechanics of the approach run, penultimate step, takeoff, flight and landing. The coach and athlete should be disciplined to look for common features versus stylistic differences.

In training for the horizontal jumps, the coach should include a steady diet of multi-lateral training of the five basic biomotor abilities (speed, strength, coordination, flexibility and work capacity) in the training program. Although emphasis may vary throughout the year, the coach should ensure that each of these abilities is addressed in some form on a weekly basis.

The coach is also discouraged not to "divorce" technique work from conditioning work. Once technical commonalities are identified, the coach will find it easier to address these features throughout the training regimen. In coaching the long and triple jumps, the coach should be aware that the athlete will not be able to focus on all the technical features of these events in specific event rehearsal sessions. Thus, every component of training should be viewed as an opportunity to address technical features. For example, strength training is an area that is often removed from technical training, but provides countless occasions to address technical features of these events. An example of this is Olympic-style weight lifting. These exercises can play a central role in strength training for the jumper, but can also be used to address functions that relate specifically to the events such as proper firing order (hip-knee-ankle) and absorption at impact. In examining the latter, we know that penultimate step landings in the long jump are "soft" with an accordion-like action taking place. Faulty penultimate steps are often loud due to premature firing at the ankle joint. Athletes who employ this strategy will also tend to be overactive at impact in doing Olympic lifts. By encouraging the athlete to feel a little bend or "give" at the joints in the rack position, the coach can address a strategy that can be beneficial to the athlete on the track.

Warmups-

The coach should be present and take an active role during the warmup. Warmups not only provide the coach teaching opportunities, but should also be used for athlete evaluation. In general, this is a time for the coach

to get “in tune” with his or her athletes. The coach should use this time to gauge the athlete’s physical, mental and emotional readiness to proceed in the remainder of the training session. The reasons for an athlete’s inability to acquire or master skills during event specific technique work can often be identified during the warmup.

Approach Development-

The development of the approach run should be considered the most crucial aspect in training a jumper since properly executing the run is a must for proper takeoff and flight mechanics. In developing the run, first consider the importance of speed training. Speed training work should be done in a fashion that not only strictly addresses absolute speed concerns, but also a multitude of factors such as posture, force application and elastic energy generation. Particular emphasis should be placed on the acceleration process. Also, the coach should realize the strong correlation between the coordination of movement at high speeds and at takeoff. Thus, although horizontal jump approaches are relatively short compared to sprint races, the jumper should do speed endurance work. The coach should recognize the need to do this as coordination training versus the need to train energy systems.

Early approach runs should be done away from the runway so as not to be influenced by the takeoff board. Rehearsal of the approach run should focus on consistency, body positioning and rhythmic qualities. Once these are established, the athlete may move to the runway where he or she can do repeated rehearsals of the approach run with a modified takeoff.

Multiple Jumps-

Multiple jump training create a wonderful opportunities to teach the technical components that are common to the events. A progression of training routines can be devised to rehearse jumping skills in a training environment. Recommended exercises include fundamental movements such as skipping and galloping, repetitive takeoffs and bounding exercises. Care should be given in choosing a progression of bounding exercises. In short, “full-out” bounding should be considered more advanced training and the coach should place a high value on more remedial bounding exercises that allow teaching of the fundamentals.

Emphasis can be on ground preparation, foot contact patterns, swinging segment usage, posture conservation, takeoff and penultimate step mechanics, etc. The athlete should show proficiency in more remedial exercises before advancing to more complex, but does not necessarily need to show mastery before advancing. It is common for athletes to master earlier skills only after progressing to more complex exercises.

Short Approach Jumps-

More specific event rehearsal is best done utilizing short approaches (4-12 steps). Although it has been recommended that fundamental skill training can and should be done throughout the training program, the athlete must be given the opportunity to synthesize the skills into something that more closely resembles the event. These are more specific in nature, but also more demanding. For the horizontal jump athlete, short approach jumps may be included twice per week. For the long jump/triple jump athlete, this may be one day of long jump and one day of triple jump. It is the author's experience that due to the unique demands of triple jumping, an athlete may be best served to devote only one day per week to full triple jumping in practice. Coaching feedback during these sessions should emphasize technical and rhythmic cues that are unique to the particular event. This is also the time for the coach and athlete to develop communication that will be used in competition.

Full Approach Jumps-

It is generally not recommended to do full approach jumping in practice situations, particularly after the competition season has begun. The stimulation of a meet environment naturally will elevate the athlete's intensity level. This should be viewed as a positive so we should not expect or demand the same levels in practice. That being said, it will be difficult for the athlete to fully replicate the speed and intensity of competitive full approach jumping. To provide the athlete with a more clear distinction between practice and the flow of competition, short approach jumping should be utilized in practice combined with rehearsing full approach runs without a takeoff or with a modified takeoff.

Designing Training-

With so many variables (length of season, mid-week meets, etc.) that can dictate training plans, coaches are well served to have an understanding of general principles so they can design training plans that fit the needs of their particular program. There are many resources for further study of training theory including Bompa's Theory and Methodology of Training. The coach should begin with designing an annual plan. With a long-term plan in mind, adjustments along the way can be made more sensibly. In planning individual training sessions, the coach should keep in mind that the activities within the session are compatible to ensure adaptation by giving the body a clearer stimulus. In planning training for the week, consideration should be given to complimentary training so that a training session on one day will enhance that of the previous day. Also, there should be contrast between training sessions. Often, a coach or athlete will want to repeat a workout that has gone well during the week. This can cause the workout to go "stale," and the athlete would be better served

to have some variance in training. Finally, the rest and recovery should be planned. Rather than waiting for the athlete to break down, the coach should plan total rest or active rest (for example, cross training) into the program as well as restoration methods such as ice, whirlpool, etc. and lower intensity training that facilitates recovery.

Conclusion-

While not intended to be comprehensive, this article is intended to describe a philosophy for development of the horizontal jumper while giving the coach some general guidelines to consider when planning training. It is the author's hope that the reader will seek more detailed study of basic biomechanics and training theory as well as technical descriptions of sprinting, long jumping and triple jumping.

References-

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