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The Horizontal Jumps: Approach Run

To an untrained eye it appears that horizontal jumpers simply run and jump into the sand. For the youngest or most inexperienced competitors this may be true. However, in order to reach the elite level in the respective jumps, a certain technical mastery is required. Over the course of the next few articles I will discuss my philosophies on the technical aspects of both the long and the triple jump.

The technical components of the horizontal jumps may be broken down into four main categories;

1. **The Approach Run**
2. **The Takeoff**
3. **The Flight OR Phases for Triple Jump**
4. **The Landing**

During this article I will discuss important aspects of the approach run.

The Approach Run

For a horizontal jumper the approach run is their dance. It is critical to success and requires considerable practice and rehearsal. This section of technical development is among the most important. Without an efficient approach run it is impossible to achieve a consistent and optimum takeoff action.

An effective approach run should:

- **Begin in a consistent fashion every time** – For an effective approach to be developed it must be practiced the same way every time. The rhythm and feel of the approach must become second nature to the athlete.
- **Use a check mark for the second or third stride** – This is important because fouling issues are related in large part to error during the first 3-6 strides. By hitting the same marks every time during the third to sixth step the athlete is able to control this section of the approach.
- **Use the same number of running strides every time** – Once the athlete/ coach has established the optimum approach distance it should be practiced the same way every time. Only when the athlete improves jump distance and sprinting speed should the approach distance be extended and only then if it is for the betterment of the jump.
- **Generally use 16–24 strides depending on level and speed of the athlete** – The best long jumpers in the world who are often the fastest generally use 20–24 strides. A world-class long jumper who relies on vertical height more than

horizontal speed may use 18 strides. Triple jumpers tend to rely less on speed and therefore often have shorter approaches. 16-20 strides is normal.

- **Reach optimal takeoff speed roughly 5 meters from the board** – Only during the final 5m should the athlete maintain speed. Until this point he/she should be gradually increasing horizontal velocity. During the final 5m the jumper begins to prepare for takeoff.
- **Be extremely active vertically with faster cadence during the final 2 strides** – During the final 2 strides the athlete is preparing for vertical lift. This is as much of an action of the body as a feeling within it. Extra vertical impulse of the running strides during this section of the approach helps maintain a tall posture with extra bounce in each stride. Achieving height at takeoff is much easier when this happens.

Approach Styles

Three main approach styles:

1. **A gradual and relaxed acceleration pattern** – This is my ideal approach style. The goal of this approach run is the speed, posture, rhythm, and feeling at the end of the approach. The jumper uses a gradual but precise acceleration pattern that leads him/her to their optimal takeoff speed. When performed correctly I believe this approach to be the best for the horizontal jumps. Carl Lewis, Sebastian Bayer and Dwight Phillips are great examples of this approach style at its best.
2. **Accelerate hard – Relax and open up the stride – Accelerate and increase frequency** – This approach style is common among Russian and Cuban jumpers. It is as the title describes and other than for personal preference I do not see a great deal of benefit in this style.
3. **The Sprint Approach** – This style is not overly common among elite male jumpers. It is more common among females. Jonathan Edwards is perhaps the best example using this approach style. Providing the initial acceleration section can be consistently replicated or the jumper is excellent at visual guidance to the board this approach can be successful. A major key to this style however is the transition to top speed and the running action over the final 10 meters of the approach. In all approach styles the final 5m should be similar with the same goals in mind.

Approach Accuracy

Even the greatest technical prowess, speed, and power will not guarantee great results during competition. The horizontal jumps are spectacular disciplines but can be frustrating due to the frequency that foul attempts occur.

How to Achieve a High Percentage of Legal Jumps

Many coaches and researchers suggest that fouling is a psychological issue. I certainly believe the psychology of a jumper plays a large role. However I suggest that equal importance lies in the specific skill development of visual control and kinesthetic awareness.

Certain psychological traits can have a catastrophic affect when trying to execute a skill, game plan, mood, or arousal level related to a specific sport or event. Here is a closer look.

Psychological issues related to Board Accuracy:

Arousal Levels	<ul style="list-style-type: none">• The horizontal jumps require maximum effort. However, due to the board accuracy component they are not absolute performance events.• Due to this fact it is very possible to become over aroused or “hyped up” on the runway. This often causes technical problems and can dramatically increase the difficulty of using visual guidance and thus maintaining good board accuracy.• It is essential that the athlete know his/her optimal arousal level and as with everything it starts in the practice setting.
Ability to Focus	<ul style="list-style-type: none">• It must start in practice and can be used not only during runway sessions but also during sprinting and other exercises.• The athlete must learn to focus on specific markers on the track throughout a sprint, throw, bound or jump for example. With deliberate practice it will become easier to maintain a fixed focus point at the board during a competition.• Eventually the athlete will be able to start his approach with a specific strike point in mind and his/her eyes will remain fixed on that point during the entire approach except for the final 2 strides.

<p style="text-align: center;">Visualization</p>	<ul style="list-style-type: none"> • There is no doubt that seeing the desired outcome time and time again not only increases motivation and confidence but also the ability to perform the associated skill or task. • This is also closely links focus. The athlete must visualize legal jumps. It may sound overly simple but the majority of jumpers visualize one thing and that is to jump far. A deliberately legal far jump is rarely used during visualization practices.
<p style="text-align: center;">Self Talk & Cueing</p>	<ul style="list-style-type: none"> • Again this is linked with focus. Tell yourself exactly where you are going to strike the board and visualize that exact same point of focus.
<p style="text-align: center;">Goal Setting</p>	<ul style="list-style-type: none"> • A very important aspect of sport psychology. Goals that are written down and visualized are far more likely to be achieved than those that aren't. • Be specific when setting goals. Tell yourself exactly what it is you want to achieve and how you are going to achieve it. • Always remember that legal jumps must be prioritized over far jumps that may or may not be legal. If you set goals around distance you will probably jump the distance but it likely will be on a foul attempt. The body and mind are amazing tools and can be programmed to the tiniest detail. Never forget to include board accuracy into your goals.
<p style="text-align: center;">Personality Trait</p>	<ul style="list-style-type: none"> • I chose to list this last because it is often the driving force behind the 5 sport psychology tools detailed above. • Athletes who are overly aggressive, passionate, aroused, competitive, motivated, and confident will often find the management of the 5 tools listed above very difficult. These athletes are your typical "1 inch" foulers. They are so driven to jump far that they refuse to give up any space on the takeoff board. They are also the type of jumpers who would prefer to foul all 6 jumps in a competition as long as they were big jumps. • Athletes on the opposite end of the spectrum who are often under aroused and non aggressive by nature will likely jump as far as their physical talents will take them. Sometimes these jumpers perform at a very high level yet seem to not care and not train particularly hard.

Skill Development Related to Board Accuracy

An accurate approach can be largely attributed to the perceptual abilities of the athlete. It is during the final 10 meters of the approach where the athlete uses visual guidance to perceive the board. Necessary adjustments are made in order to strike the board accurately. While it is true that certain people possess greater perceptual abilities than others, there is no doubt that this skill can be enhanced through systematic practice. The practice I recommend is called Contextual Interference (CI) used through methods of Variable Practice (PV).

In 2012 Dr. Will Wu and I issued a comprehensive survey to a number of the most experienced and successful horizontal jumps coaches in the world. Among the coaches questioned were those of current World and Olympic long/ triple champions as well as current world record holders. The survey was issued to assess whether variable practice related to approach accuracy was being used by the world's best jumpers. We concluded that the majority of coaches had previously used the learning method (PV) but were either not aware of the implications of it, discontinued using it and/or used it sporadically at best.

The foremost reason an athlete practices a skill is to enable him/her to re-create it during a competition setting. It is therefore wise for coaches and athletes to learn skills using methods that are going to accelerate the learning and retention process. PV offers this ability and can be incorporated into a training program focused on improving board accuracy among horizontal jumpers.

PV refers to the variety of movement context characteristics a person experiences while practicing a skill. This basically means that by practicing variations of a specific skill a person is performing variable practice. For example, practice variability is seen by having an athlete practice a skill under conditions, restraints and guidelines not usually associated with that particular skill in a competition setting.

There are many ways to incorporate variable practice into a horizontal jumpers training plan. One example can be to alternate the number of strides an athlete jumps from during a technical session. For example, by jumping from 10, 14, 12, 14, 10, and 12 strides and aiming to hit the take off board every time, the athlete is partaking in random VP. This same session could be made easier if the athlete was to jump from 10, 10, 10, 12, 12, and 12 strides. The level of variability placed on a particular training session is closely related to the concept called Contextual Interference (CI). CI is the memory and performance disruption that occurs from performing multiple skills and skill variations within a practice session. The level of CI can be high or low depending on how much variability is used within the session. Much research has proven that high levels of CI will significantly improve the ability to reproduce the standard skill in retention tests or competitions. Ironically however, performance during practice sessions with high CI will often decrease.

As there are many ways PV can be used to develop board accuracy it is important to create a structured system. As previously mentioned, alternating the number of strides used in a technical session is a way of including PV. Other methods include the following:

- Changing starting positions throughout a session by 30-60cm forward or backwards
- Changing the board focus or aim. For example, aiming to strike before the takeoff board followed by a striking aim of past the takeoff board all the while keeping the starting position the same
- Random starting positions will test visual control and the ability to adjust stride length when closing in on the board.

Below is a table of how CI and PV can be included in approach training throughout the year.

General Prep	<ul style="list-style-type: none"> • Build up to 3 variations of approach stride number during a session • Use consistent starting position for all jumps / approaches • Target short, long, and perfect aim of the board during sessions
Specific Prep / Technical Prep	<ol style="list-style-type: none"> 1. <ul style="list-style-type: none"> • Use variations of approach stride number during a session • Use consistent starting position for all jumps/ approaches • Target short, long, and perfect aim of the board during sessions 2. <ul style="list-style-type: none"> • Vary starting method during jumps/ approaches • Vary starting position by 30-60cm in alternating fashion • Keep board strike target constant either short, long or perfect 3. <ul style="list-style-type: none"> • Use constant start position • Target specific points on board (2-8 inch specific)
Competition	<ul style="list-style-type: none"> • Short and full approach runs with a very specific focus point using constant starting position