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Developing a Javelin Run-Up

By Duncan Atwood

Developing the run-up in the javelin can be a struggle. Done well, the run-up can add up to 80 feet to a throw. Done poorly, a full run can subtract distance from a three- or five-step approach. Many coaches and athletes deal with this issue by throwing from a short run most of the time, and then hoping it solves itself when the season arrives. Sometimes it does, usually it doesn't.

The key is to think of the javelin run-up as being an amped-up version of the run-up used to kick a ball for distance. Both runs accelerate, both require a predictable number of steps so as to arrive at the ball or scratch line without overstepping, both have a rhythm with a final leap into the plant, both add power to the kick or throw, and both result in a follow-through. This comparison is useful because most athletes and coaches have enough experience with kicking to get the idea. Few have seen many good javelin run-ups, and even fewer have done it themselves.

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Many styles exist for making the run-up effective. To allow for this, a system for developing the run-up should include "athlete determined" aspects of the run, such as the number of steps, rhythm pattern, and overall length of the run. As with the ball kick, the javelin run needs to be automatic enough to allow the athlete to hold the sense of the throw in mind during the run-up rather than, for example, watching for the scratch line. The athlete must be confident that the run will truly contribute to the throw, or bad things can happen at meets.

The following steps offer an effective approach for developing the javelin run-up:

Select an unmarked grass field. In the beginning, extra steps are necessary, and a grass field eliminates scratch line apprehension and worries about distance. Make sure the spikes are long enough. After a good warm-up and stretch, have the athlete stand with the javelin already withdrawn, and mark the spot.

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Have the athlete run up and throw. The run-up should be a build-up like that of a ball kick or long jump. Your athletes usually ease into something like a final crossover. If necessary, acquaint them with the basics—upper body sideways for a few steps, with the lower body working to a final crossover and plant. Do not throw hard. Mark the spot where they come to a stop after the throw. This point is their temporary scratch line. Also mark the landing point of the javelin. This step is not to later measure the best throw, but to provide feedback about how effective the run-ups are relative to each other. Move the mark to the farthest throw of the day. It can be exciting for an athlete to experience easy throws going farther than hard ones. If possible, set it up so that there is no objective knowledge of the distance, so experimentation is easier.

It is worth repeating that the run-up should power the throw; the idea is to get throws that increase in distance because of increasing the speed of the run-up, as the athlete continues to report very little throwing effort. A quality flight is also important, as is the plant. Those are big topics in themselves, but sometimes they happen naturally, if the run-up is in order.

Briefly, the javelin should fly at about 30-to-35 degrees, and the plant needs to hit heel first with the leg at about a 50-degree angle. A slight knee bend is OK; a major bend is not. Post up and over the plant into the follow-through.

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While the path of the throwing arm is often the topic of much discussion, it is almost completely a function of the run-up. Furthermore, most arm problems, in both mechanical-efficiency and injury areas, can be traced to the run-up.

Repeat as many times as it takes for the athlete to become consistent with the number of steps taken. Keep the start point the same, but move the scratch line as necessary. The javelin landing-point mark should be moved each time as well. This endeavor helps the athlete gain a sense of what's working and what isn't. The throws should be very light, with the emphasis on smoothness, continuity of the run into the throw, and ease of throwing effort.

Once the steps are consistent, the coach needs to count them, noting how many crossovers have been chosen. Because most throwing coaches don't have much experience counting steps, they don't value this element of coaching, but it's critical. The javelin is a runway event first and a throw second. You can be sure that in the other runway events, very careful attention to step counting is basic.

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The next throwing session picks up where the last one left off. It is a big mistake to allow random run-ups to the scratch line, guessing at the start point, and blowing over the line by 10 feet. Still, on the unmarked field, the athlete needs to establish the "rhythm of the day" (hopefully not too different from the previous session, although it can vary widely in the beginning), establish a start point and stick to it, and repeat step three, striving for consistency, while keeping a smooth, building run-up.

After perhaps five sessions of starting with the javelin already withdrawn and seeing that some consistency has been reliably established with the number of steps to the throw, try establishing an initial start point about 20-to-30 feet back from the original start point. The athlete should now begin the run facing forward, with the throwing hand roughly by the head and the javelin flat, to see if a drawback at the old start point can be established. This undertaking may require several sessions to reestablish the steps. Now that there is speed into what was a static start point, the scratch line will probably have to be moved, perhaps up to 10 feet further down the field.

Other elements to vary are speed and rhythm. Speed changes need to be very incremental—if the changes are too large, it's too hard to sort out what's going on. Add speed until the control suffers; back off in tiny amounts until control returns. Then add speed in small amounts again until control is a struggle, and then back off again. Repeating this process helps the athlete learn how the run-up speed influences the throw. Rhythm changes can occur spontaneously. Once I had an athlete say that he felt like he needed to add a small, quick step before going into his final crossover. He was able to test it effectively because his steps were consistent. It worked for him by giving him a better sense of the timing of the throw. A coach can suggest a change such as this, but knowing what's going to work is trial and mostly error.

Don't forget the follow-through. As the run-up speed improves, the follow-through should lengthen. Allow this. In fact, if the follow-through is short after a long, fast run, it's a sign of slowing down during the throw. The throw takes place during a *run*, not during a *stop*. The follow-through can be two or even three steps long. Practice,

practice, practice. In maybe 10-to-15 sessions, the athlete should begin to establish a decent run-up that can be tinkered with without having to start over. As throwers improve, their stride length will increase to a point where the same number of steps doesn't fit on the runway. Just move the checkpoints back. I've seen throwers be uncertain about moving their steps back as much as two javelin lengths in a meet when they're psyched and blowing over the line. Move the start point back *three* lengths, if necessary.

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To back up this development, javelin throwers need to R-U-N. I try to get my athletes to build up to five-to-ten times 60m of crossovers with the javelin. They need 10m to get going, 15m to have a few bad ones, another 15m to figure it out (or I yell at them what to fix), and then maybe 20m to have a good series before tiring. They need to learn to run *fast* with floating steps, while holding the javelin *back* and *steady*. It's harder than most coaches and athletes realize, but it does respond well to actually practicing it. Add a backward lean, and it really is a special skill. All the top javelin throwers make it look easy, which it is if you practice, but not, if you don't.

The running crossovers also go a long way to strengthening the adductor (groin) muscles, which are easily strained in javelin throwers. Additional specific strength is gained in holding the arms up while running with a torso twist. Although these aspects of strength are vital to a comfortable run-up, they aren't developed in the weight room.

Additional steps that can be employed to help develop an effective javelin run-up include:

- *Practice hurdling*. Set up four intermediate height (or lower, if needed) hurdles down the backstretch. Have the thrower run over them, counting their steps. Maybe they'll take 15 if they are runners; maybe they'll take 21 if they aren't. No matter—it's great for conditioning and to learn how to count steps. The leap over the hurdle is like a crossover in the effort made to spring off the ground, and landing running is like the landing after the crossover—the athlete must keep moving into the throw. Javelin throwers should learn to hurdle, alternating the lead leg; this action creates a skilled, flexible, dynamic lower body, so often lacking in javelin throwers. Make it easy at first.
- *Practice skipping*. In Finland, children (most of whom are already familiar with skipping) are taught the run-up by skipping with the javelin and trying to put the skip into the throw. Like a crow hop in baseball, but with more momentum, skipping into the throw is an easy way for beginners to feel how to put a hop (the precursor to the crossover) into the throw. It is essential that any throw include a follow-through. Again, the kick analogy is appropriate. The final leap the kicker makes into the kick is like the skip or crossover into the throw and a good long kick always has a natural follow-through.

Start with continuous sideways skipping, holding the javelin in a drawn-back position. Use the non-throwing arm to help balance and amplify the skip. It may take a few practices to get control of the point while skipping. Make sure it is done while leaning back along the shaft of the javelin. Then add a short toss as the athlete is

landing from a skip. Make sure that the throw involves virtually no effort and that the javelin flies through the point. After that is consistent (30+ good flights), the thrower can move to running into the skip with an easy toss. The run can be facing forward, crossovers, or in between—it's the skip and timing of the throw that count.

- *Exaggerate the rhythm*. Add moments of hang time, quick bursts of legwork, and anything you can think of to get the athlete to add rhythm to the throw. The best run-ups have noticeable breaks in the continuity of the run worked into an overall smoothness.
- *Don't forget the left arm (or right arm for you lefties)*. By being active, the non-throwing arm can really help to balance and smooth things out.
- *Remember that the javelin starts flying as soon as the thrower starts down the runway*. Each step of the run-up needs to contribute to the smooth flight of the javelin. When this factor is done well, throwers report that all they did was run up and let it go. It's usually the farthest throw of the day.

By training the run-up the way the other runway events do, (i.e., by having a consistent start, check, and finish point), the javelin thrower can add huge distance and improve consistency. When throwers are confident that they won't run out of room at the line, they can attack the throw, follow-through, and then wait for the big number to come up on the board.

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