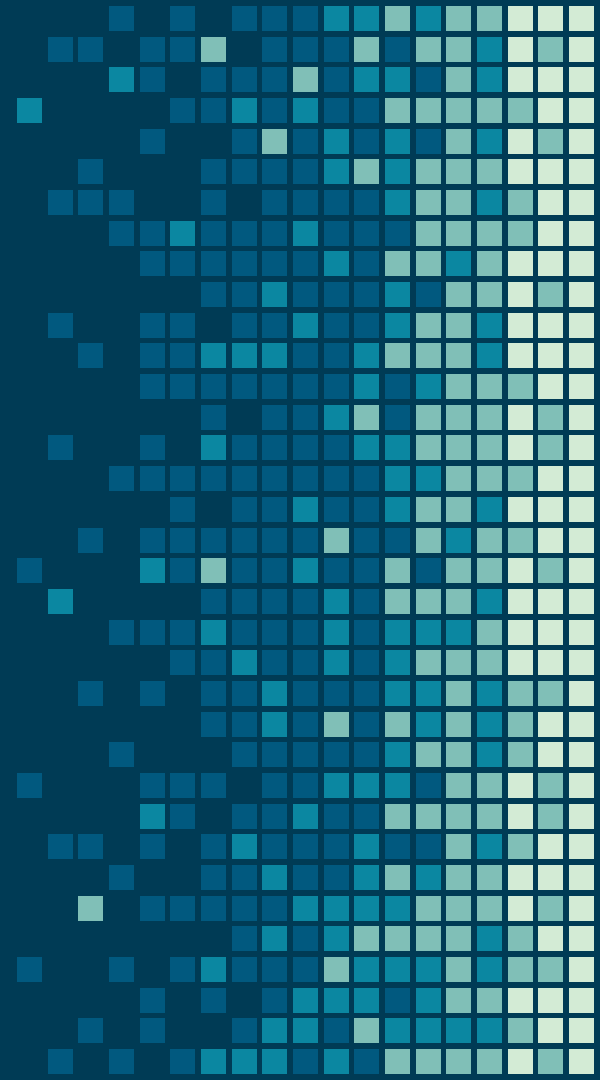


Long Jump: Understanding The Simplicity

By Ryan Ewing



Hello!

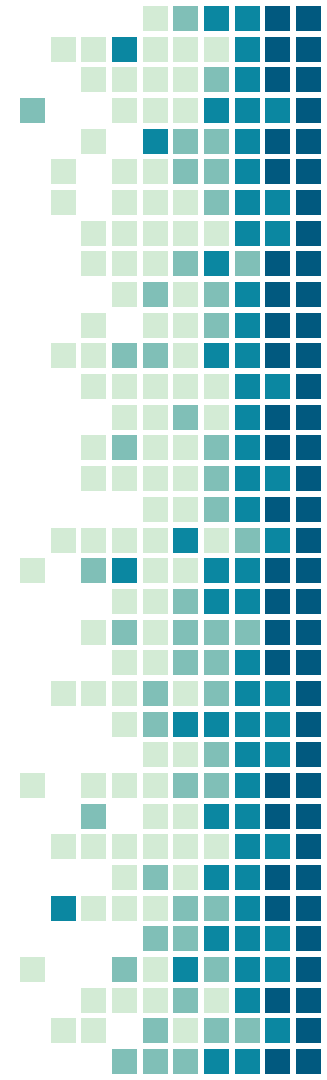
My name is Ryan Ewing. I am the creator/founder of www.longandtriple.com and the current long and triple jumps coach at Sun Prairie High School.



HISTORY:

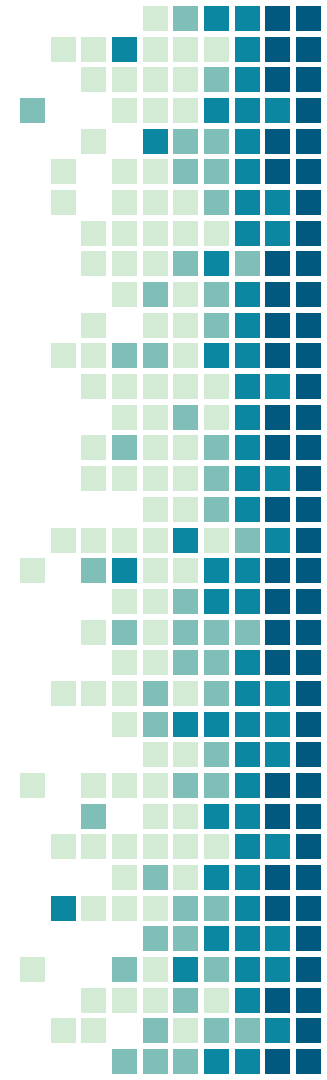
In my 10 years of coaching I have been fortunate enough to experience some great success.

- I have coached seven of the top ten female long jumpers in Sun Prairie history
- I have coached four of the top ten male long jumpers in Sun Prairie history.



IN 2018....

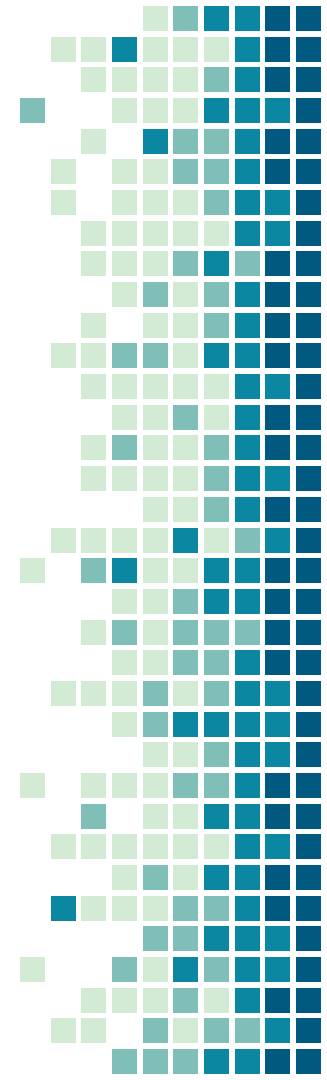
I coached two jumpers to break school records. One of those records was 42 years old, and was one that we had been desperately trying to break for years. Those two jumpers went on to compete at the Wisconsin State Meet with one of them earning a 5th place finish.



IN 2018....

I also assisted 3 other schools (in/out of state) break a total of 4 school records through my website.

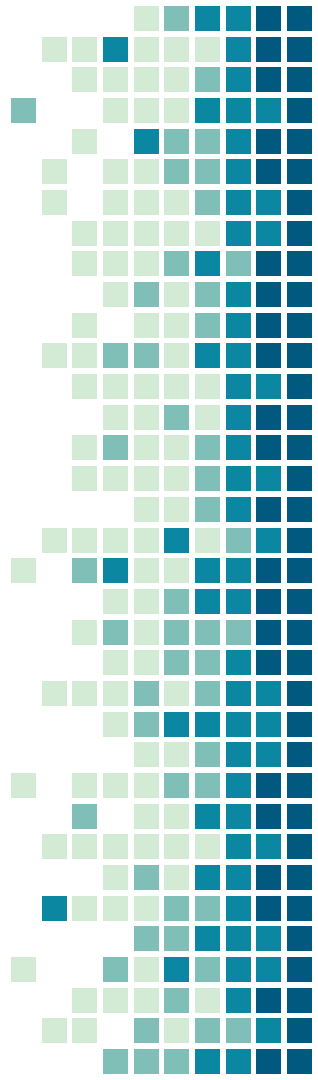
I am very passionate about the jumps and want to help any coaches/athletes dedicated enough to maximize potential any way I can!



AGENDA:

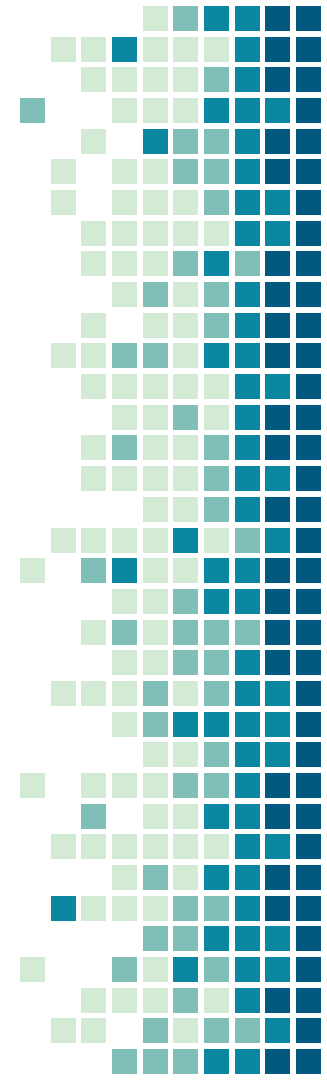
Today I will be covering:

- The start
- The approach
- The takeoff
- Flight and Landing
- Training Suggestions



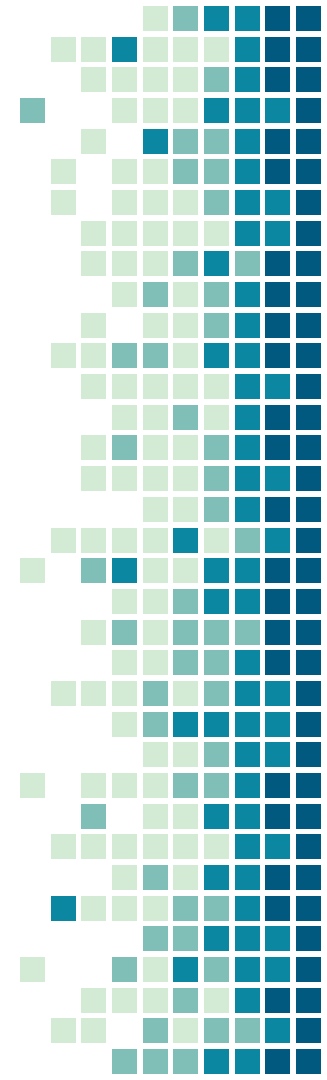
1. THE START

In the various components that make up a long jump, this may be the **most** important. The start determines whether or not an athlete will “mark” 9/10 times, and is something that needs to be given a great deal of attention and time. Without mastering this crucial focus athletes will regularly waste their abilities as jumpers.



THE CROUCH START

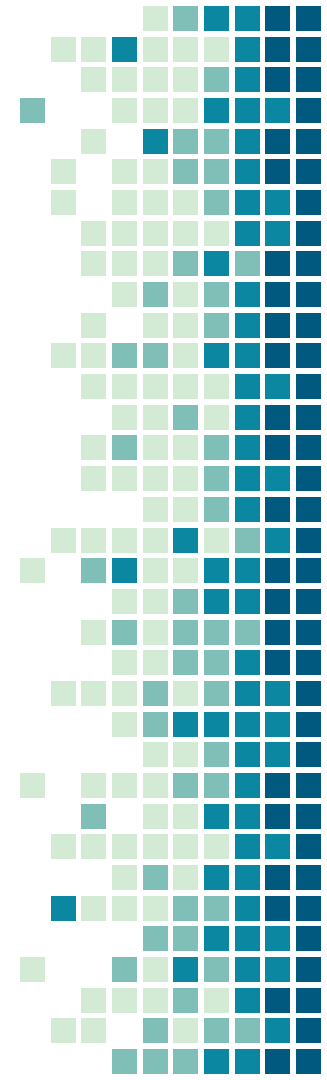
After researching and utilizing various starts in my time coaching, I have come to the conclusion that the “crouch start” is one that gives athletes the highest chance of marking **consistently**. This start mirrors the mechanics already learned while sprint training (blocks), and is one that helps to battle inertia in an aggressive/consistent way.



THE CROUCH START CONTINUED...

Too often I see athletes that are using improper starts that lead to a high percentage of scratches. These starts generally have a couple of things in common:

- There's too much movement
- It's incredibly hard to replicate
- It's too far away for high school aged athletes

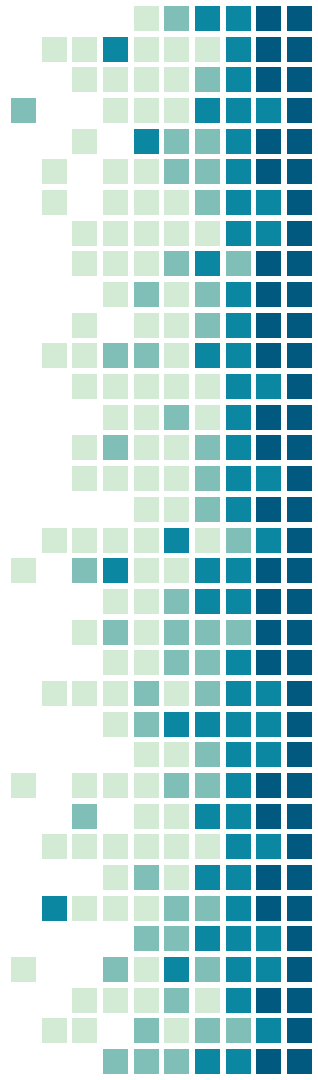


THE CROUCH START CONTINUED...

Here are two examples of **poor** starts:

https://www.instagram.com/p/BpFvllRFoUt/?utm_source=ig_web_button_share_sheet

https://www.instagram.com/p/BgBFzkyjDvX/?utm_source=ig_web_button_share_sheet



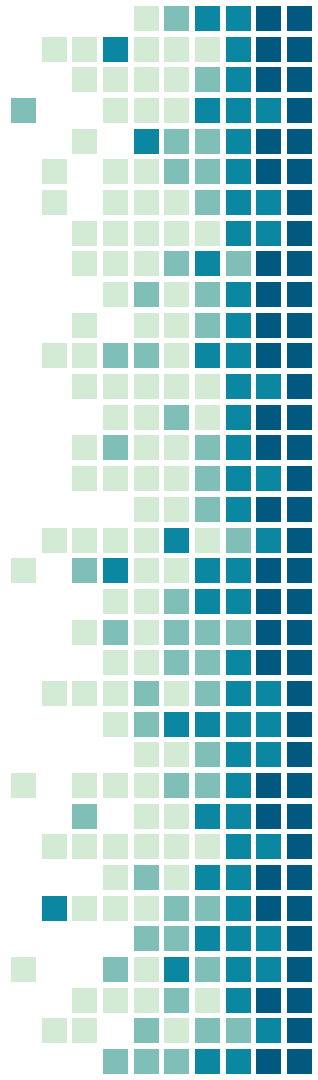
THE CROUCH START CONTINUED...

Here is a video of a properly performed crouch start:



THE CROUCH START CONTINUED...

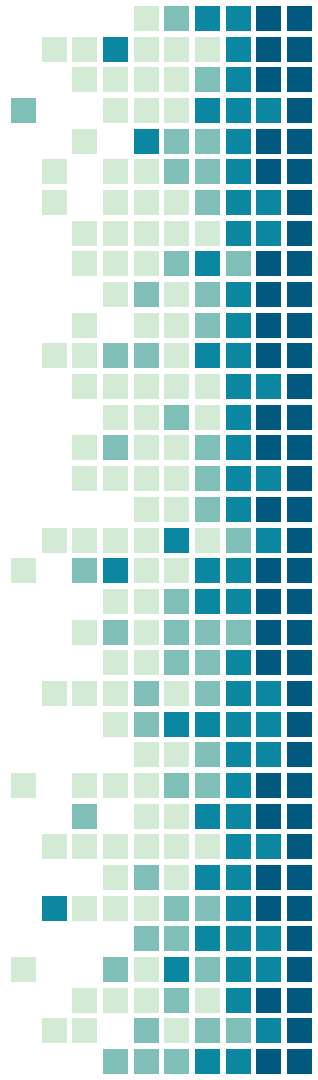
If you watch the video closely, the athlete performing the start stretched and did his “movements” prior to getting into position. There wasn't a walk-in, there wasn't bounding, and there wasn't an overly long start. Everything he did was easily replicated, and something that made him an extremely consistent jumper last year.



THE CROUCH START CONTINUED...

General suggestions:

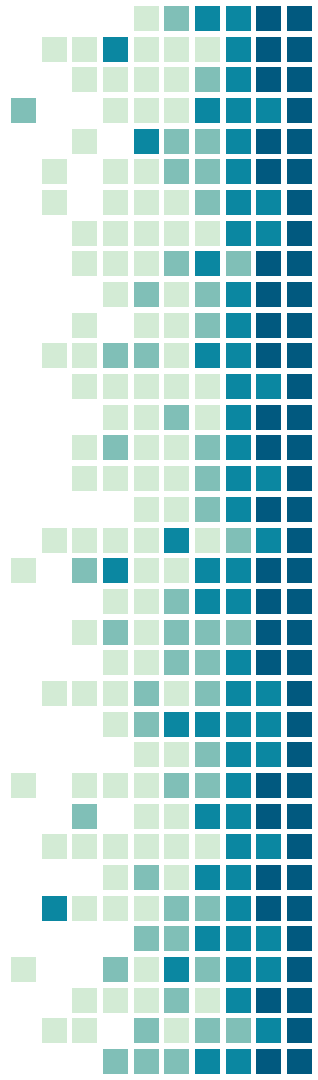
- Vary your jumper's approach distance by experience, age, and/or consistency.
- Keep everything as simple as possible.
- Don't allow athletes to move onto practicing full approaches on a regular basis until their start is **mastered**.



THE CROUCH START CONTINUED...

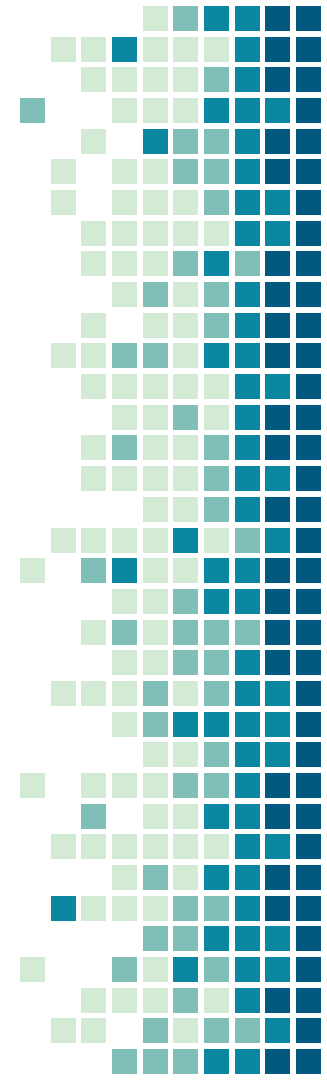
General suggestions continued:

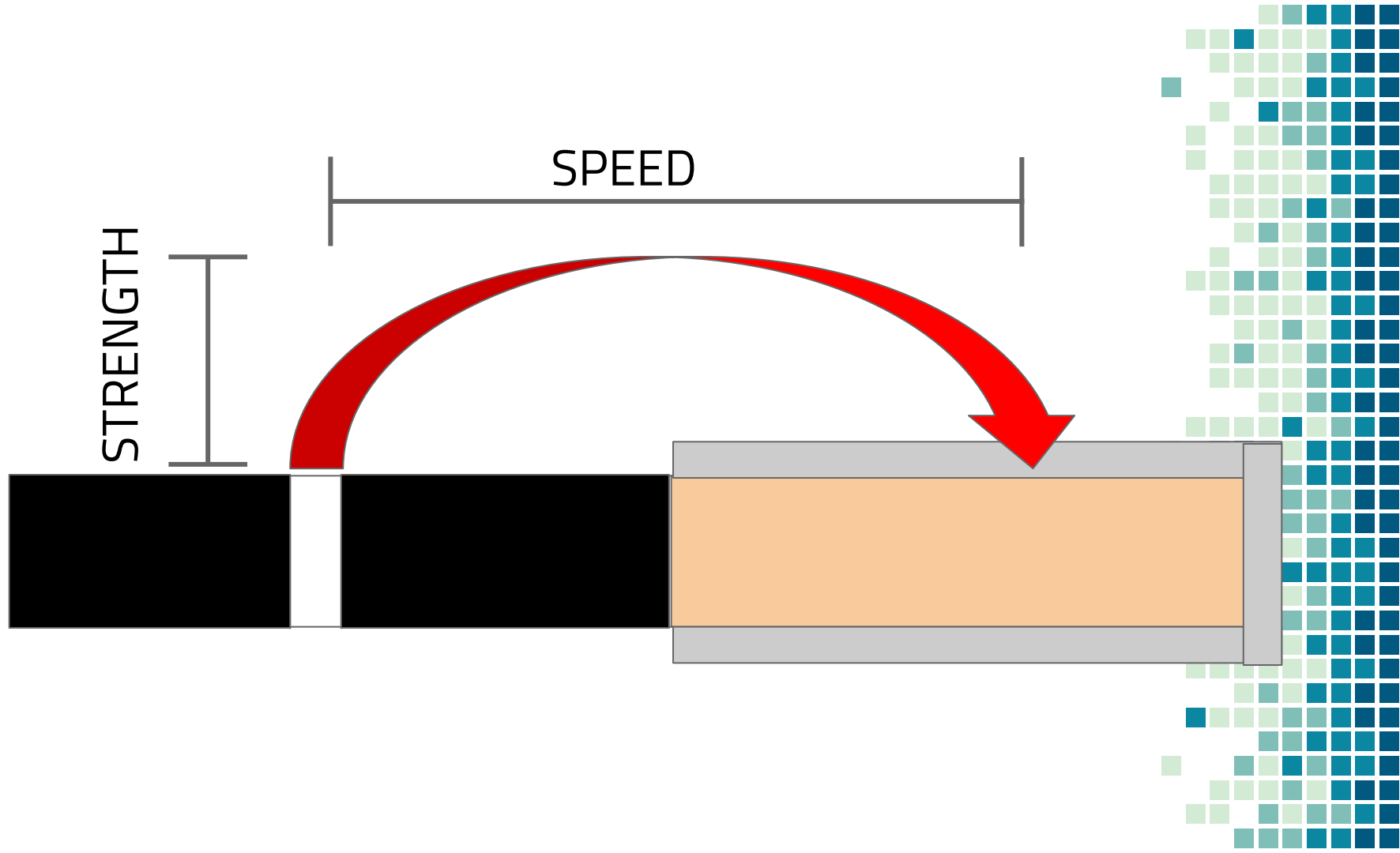
- Make start work a priority at practice. Preach its importance as often as you can. Make sure your athletes understand their jumps depend on that work.
- Be consistent and pay close attention to any negative habits that may arise (bounding ex.)



2. THE APPROACH

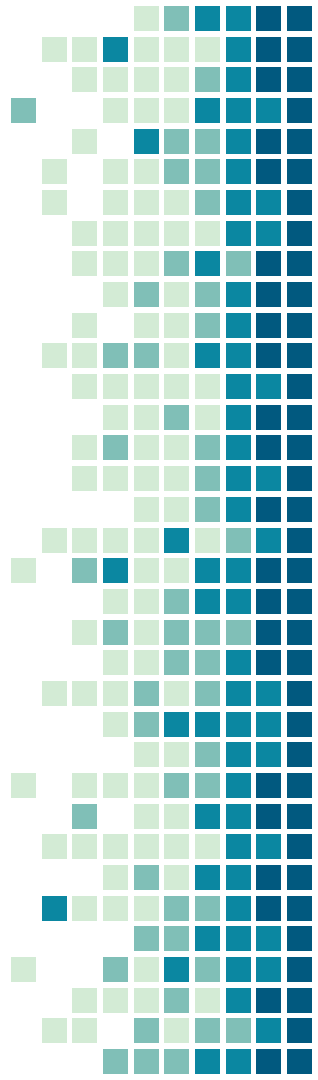
Once athletes perform the crouch start, they must attain proper sprint form to build and maintain speed. This speed is incredibly important and must be preserved at all costs to ensure that the jumper's distance is equal to their ability level.





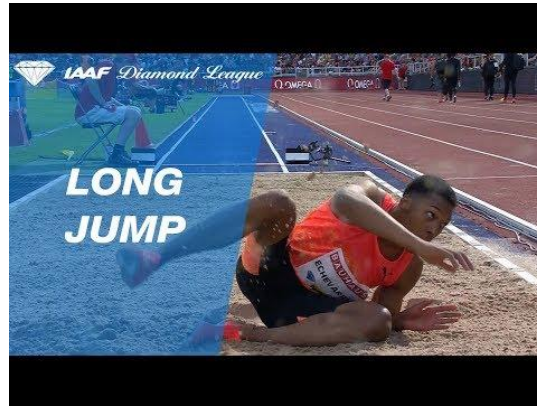
SPEED

I know many/all of us may never experience coaching an Olympic caliber athlete, but I wanted to show you a clip that I feel clearly sums up the importance of speed in the long jump.



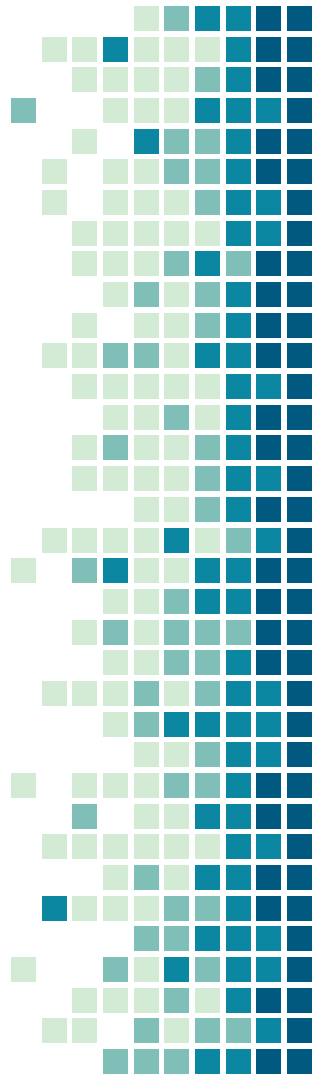
SPEED CONTINUED....

This is Juan Miguel Echevarria's jump from June of this year:



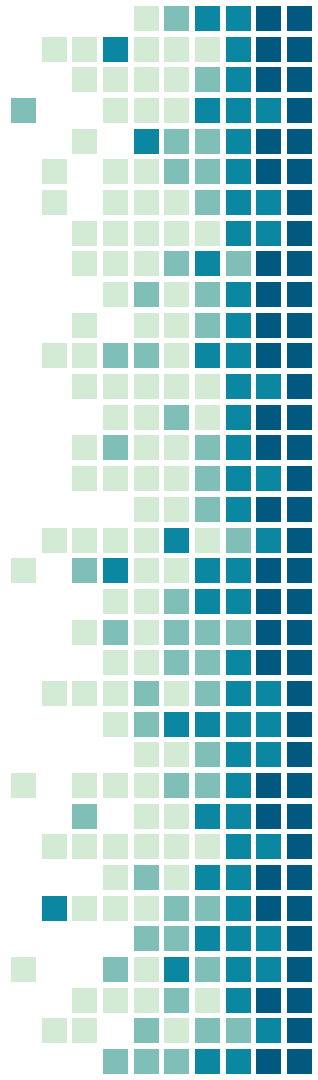
SPEED CONTINUED...

This was the longest jump in competition (under any circumstances/conditions) in nearly 23 years! This has been one of the most talked about jumps this year, and has catapulted this young man to stardom and worldwide recognition.



SPEED CONTINUED...

He obviously has amazing strength and a great deal of experience to be able to pull this jump off. What most people will ignore is the SPEED at which he approached the board. As well, at takeoff, there was no loss of speed - everything was preserved and used correctly. Watch it again.

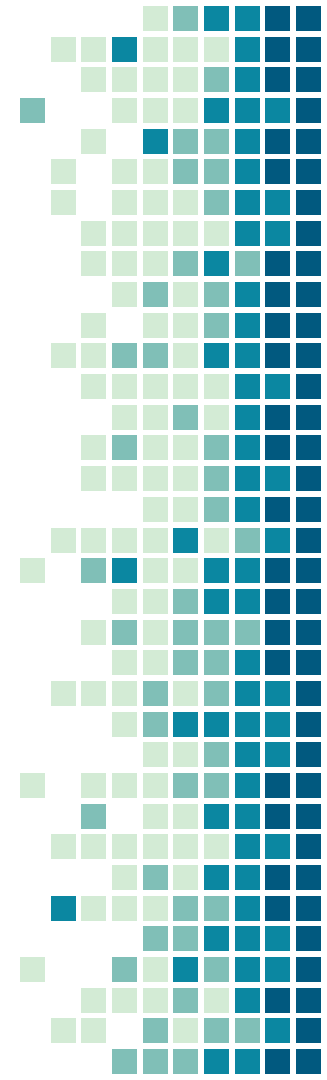


SPEED CONTINUED....



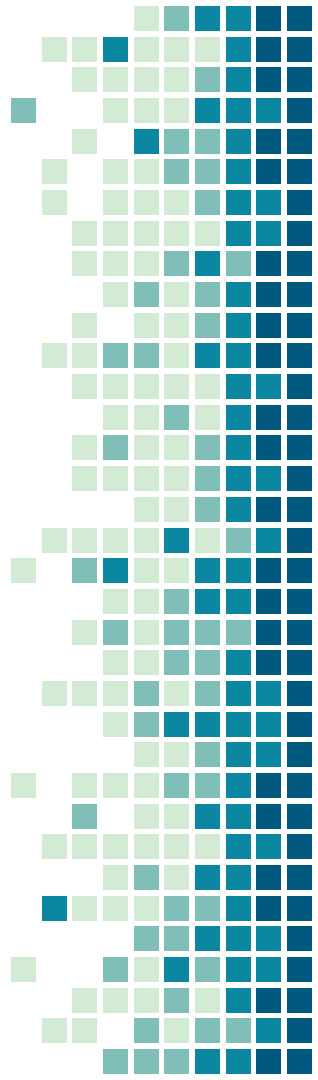
SPEED CONTINUED...

Even though this athlete's skill level and speed is way beyond our high school athletes, the idea and the way in which he approached the board can be replicated at our level! We need to create a fearlessness in our athletes that is built upon good coaching/communication!

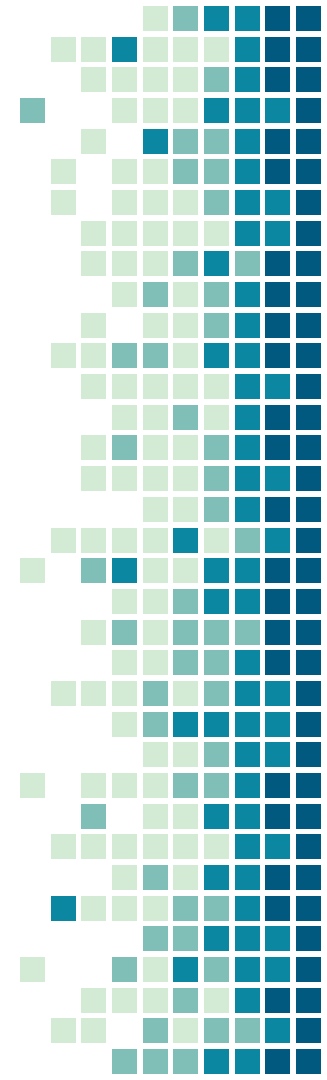
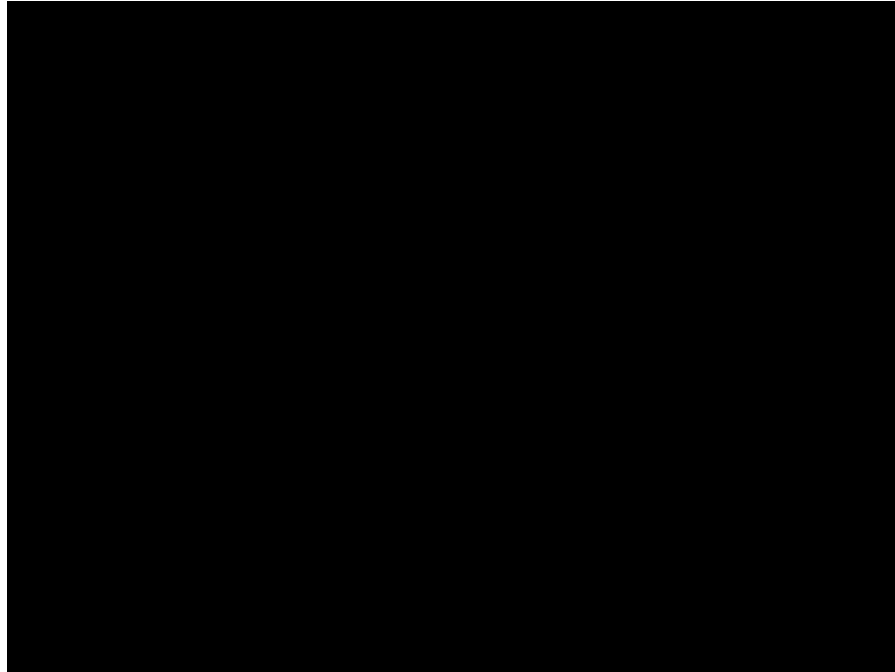


SPEED CONTINUED...

Watch this young lady that jumped for me a few years ago...

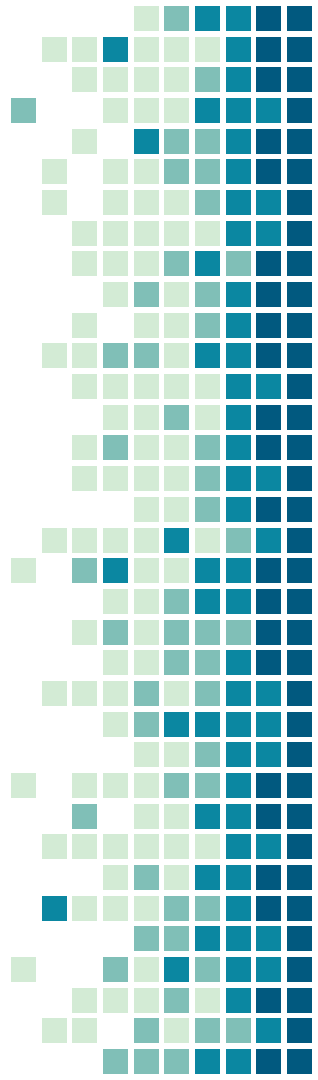


SPEED CONTINUED...



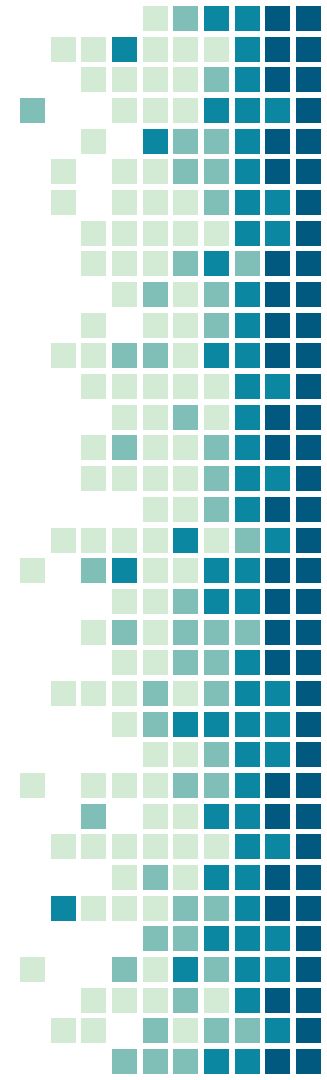
SPEED CONTINUED...

It was her great sprint mechanics and knowledge of the proper takeoff that allowed her to jump the number she did that day. She not only went on to win that competition, but had a solid year!



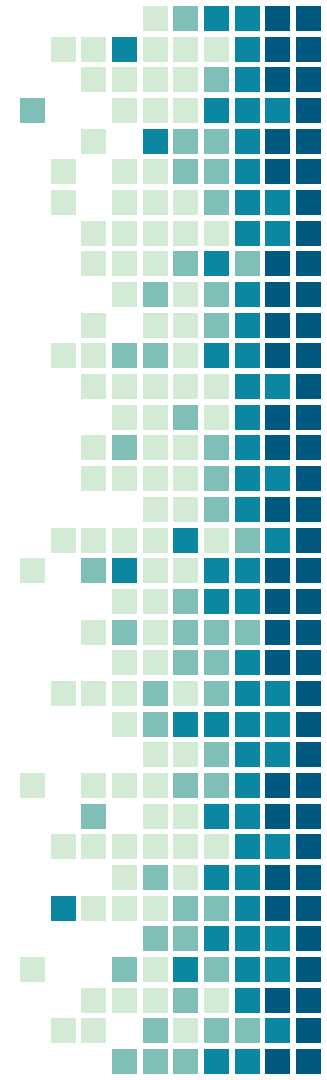
3. THE TAKEOFF

The takeoff is a continuation of all that was accomplished during the approach. The momentum and speed that was created must continue if the athlete hopes to jump a number that is worthy of their potential. Unfortunately though, this is the part of the jump that **many** athletes and coaches simply don't know enough about...



THE PENULTIMATE STEP

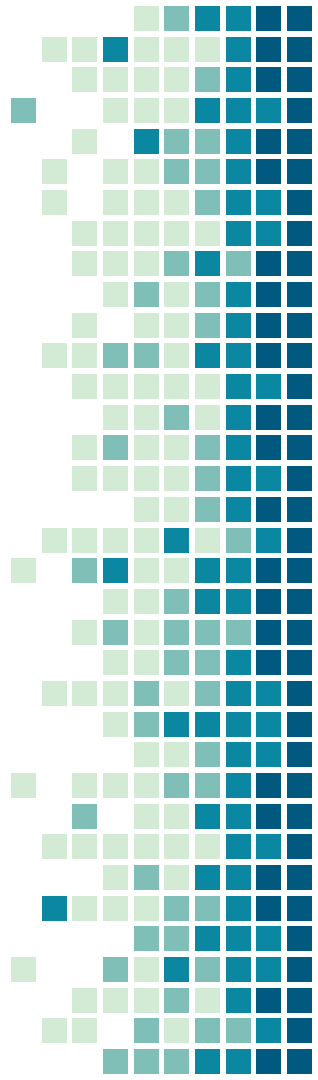
The penultimate step is what jump coaches say when they are referring to the 2nd to last step before takeoff. This step is crucial in preparing the athlete for the proper takeoff angle, height, power, etc.



THE PENULTIMATE STEP CONT...

Many believe that the last two steps should be short-long to best set their athlete up.

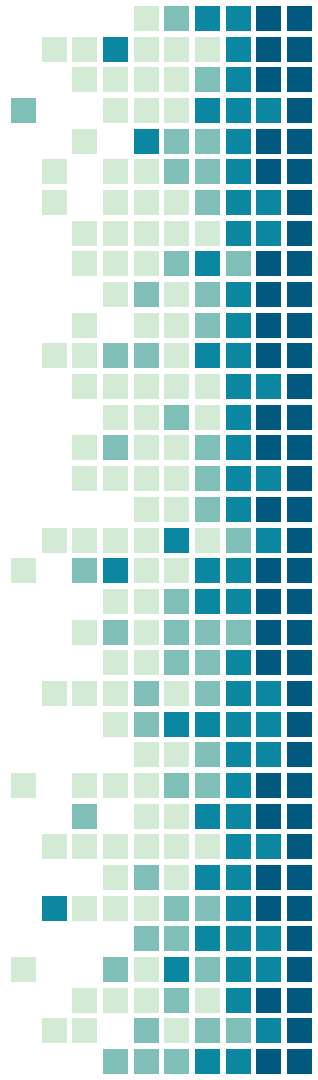
Many believe there needs to be a significant “dip of the hips” to achieve the desired power.



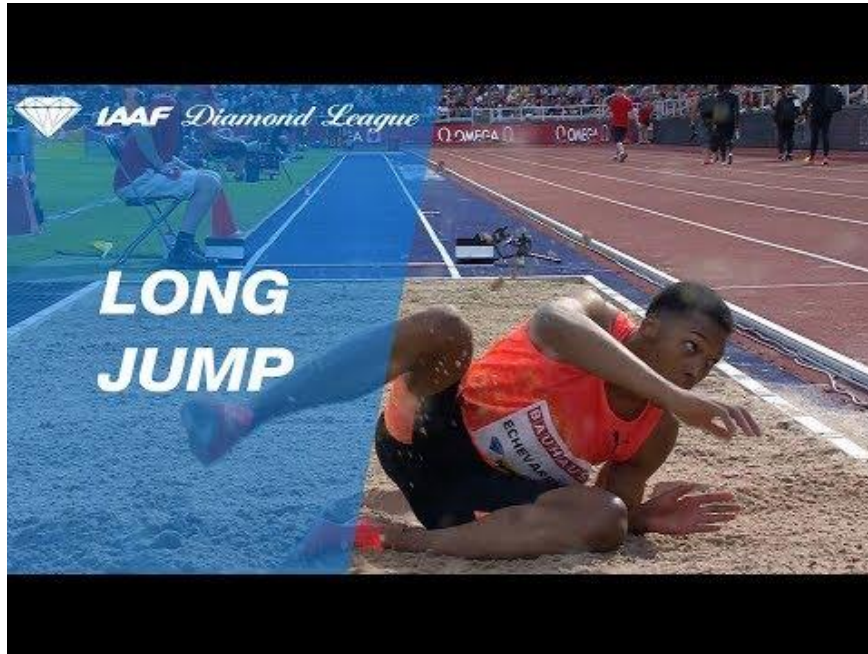
THE PENULTIMATE STEP CONT...

There are many differing beliefs about what a proper penultimate should be...

Let's take a look at Juan Miguel again and see what he did for his takeoff!

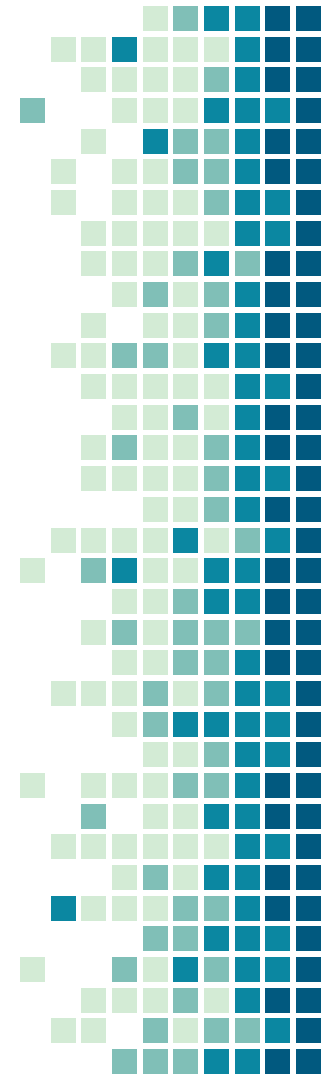


THE PENULTIMATE STEP CONT...



THE PENULTIMATE STEP CONT...

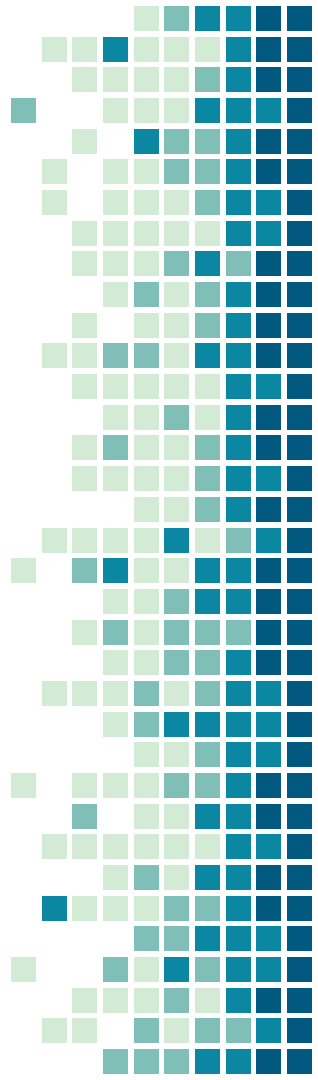
What did you notice?



THE PENULTIMATE STEP CONT...

For a moment there it does look like his last step is longer than the others.

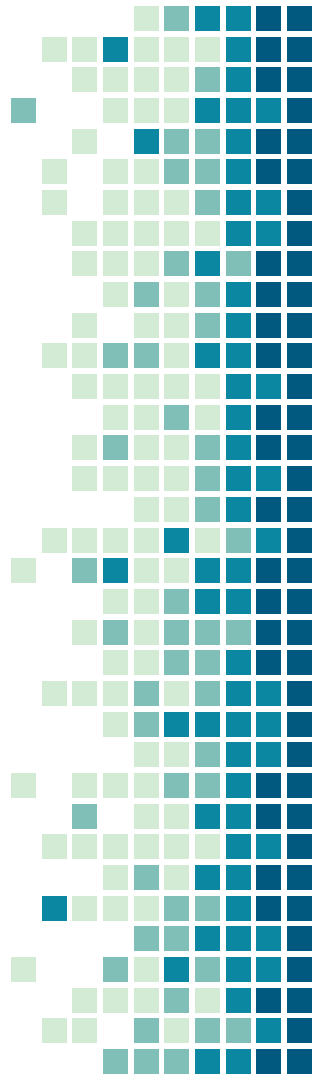
It isn't though, and this is why so many people believe the theory of short-long...



THE PENULTIMATE STEP CONT...

If you watch closely you'll see that his foot contacts stay pretty consistent throughout the entirety of the approach (even the last two steps).

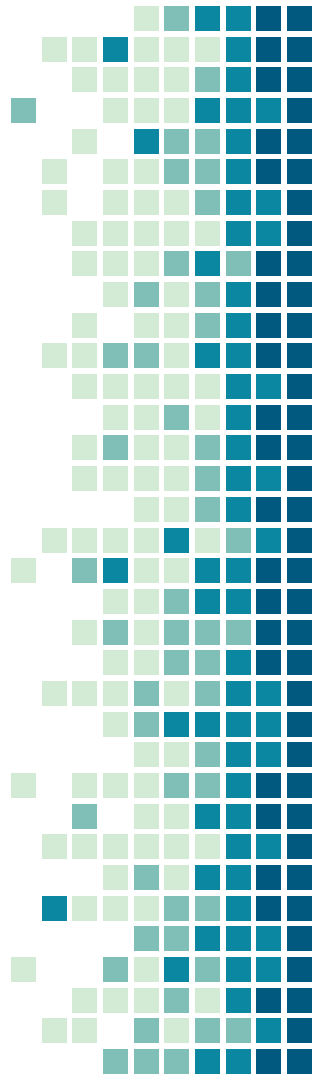
What changes is the **type** of foot contact in the last two steps. They're **flat footed contacts!**



THE PENULTIMATE STEP CONT...

It only looks like he takes a longer stride because he's changed the way in which his foot contacts the ground - giving it an elongated look!

He changed from running on the balls of his feet to a dorsiflexed foot so that he would contact the board with a flat foot!



THE PENULTIMATE STEP CONT...

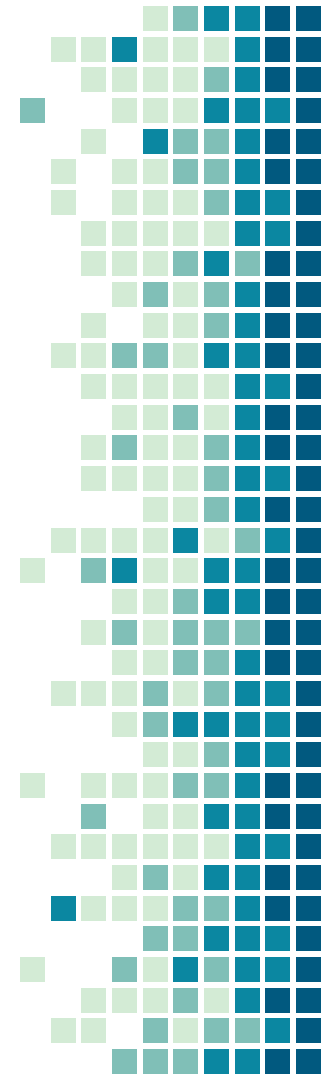
Watch one last time:



“HIP DIP”

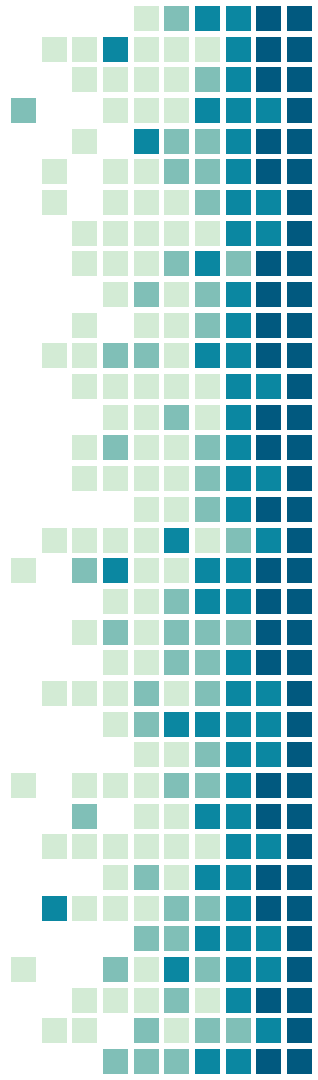
By athletes utilizing a flat footed technique in the last two steps they naturally drop their hips to utilize their explosive ability.

Imagine a basketball player going up for a rebound without a slight “hip dip”. Think of a volleyball player going up for a spike without a “hip dip.”



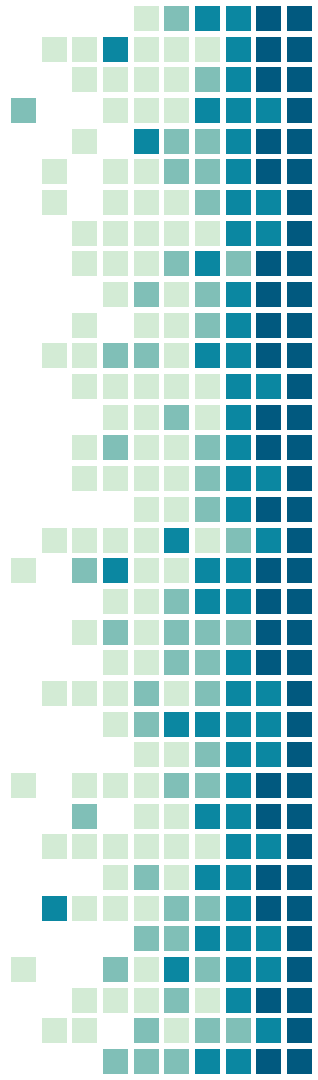
TTTTFF

When I was taught about the flat-footed foot contacts I was done so by observing a drill called “Toe, Toe, Toe, Flat, Flat.” This drill mimics both the desired sprint mechanics athletes should use while approaching, AND the correct foot contacts at takeoff.



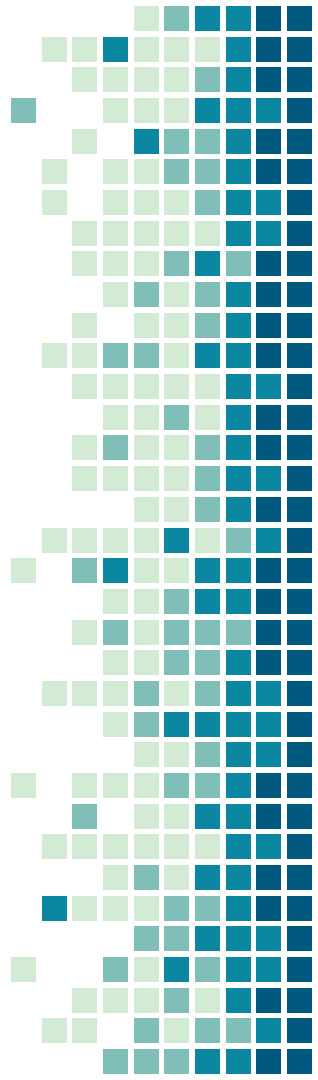
TTTFF CONTINUED...

It is one of the easiest drills I've ever used. Due to its ease, my athletes understand it very well and in turn compete at high levels. Here's a video of the drill in action:



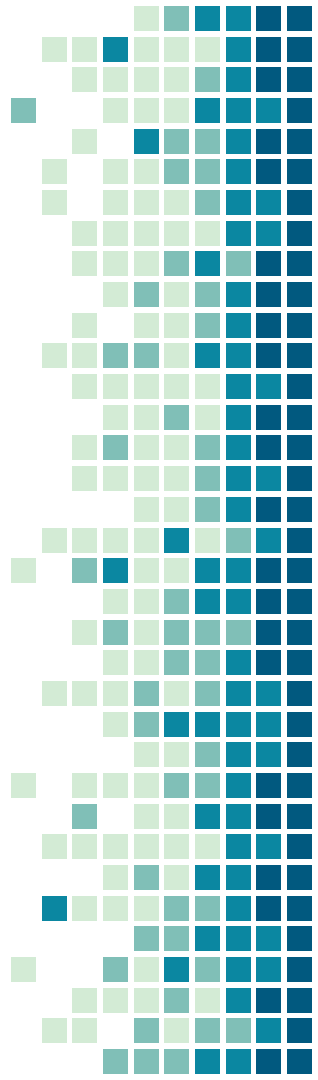
TTTTFF CONTINUED...

I highly recommend starting your season focusing on this drill (or a variation of it) to help your athletes not only understand the correct foot pattern, but to also condition their legs for the upcoming season. Once you have established a strong knowledge in your athletes, start adding speed gradually (short approach jumps).



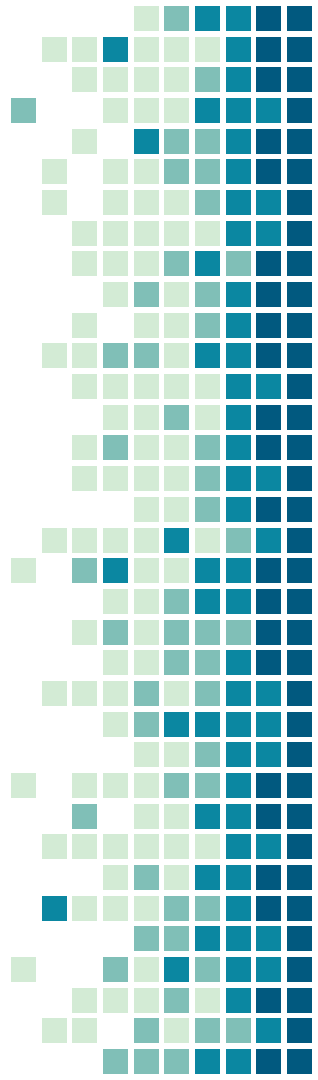
TTTTFF CONTINUED...

It will take time for athletes to be train their bodies to make the correct foot contacts at top speed, so spend a great deal of your season on short approach jumps while emphasizing the flat footed contacts in the last two steps.



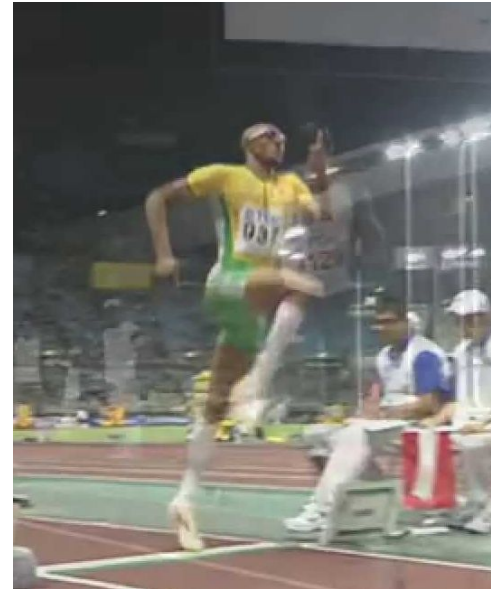
THE TAKEOFF

Once an athlete performs the proper flat-footed last two steps, he/she will need to continue their sprint mechanics as much as possible to maintain and utilize their speed down the runway. This means they will need to use both their knee and arm drives to assist in their upward/outward momentum.



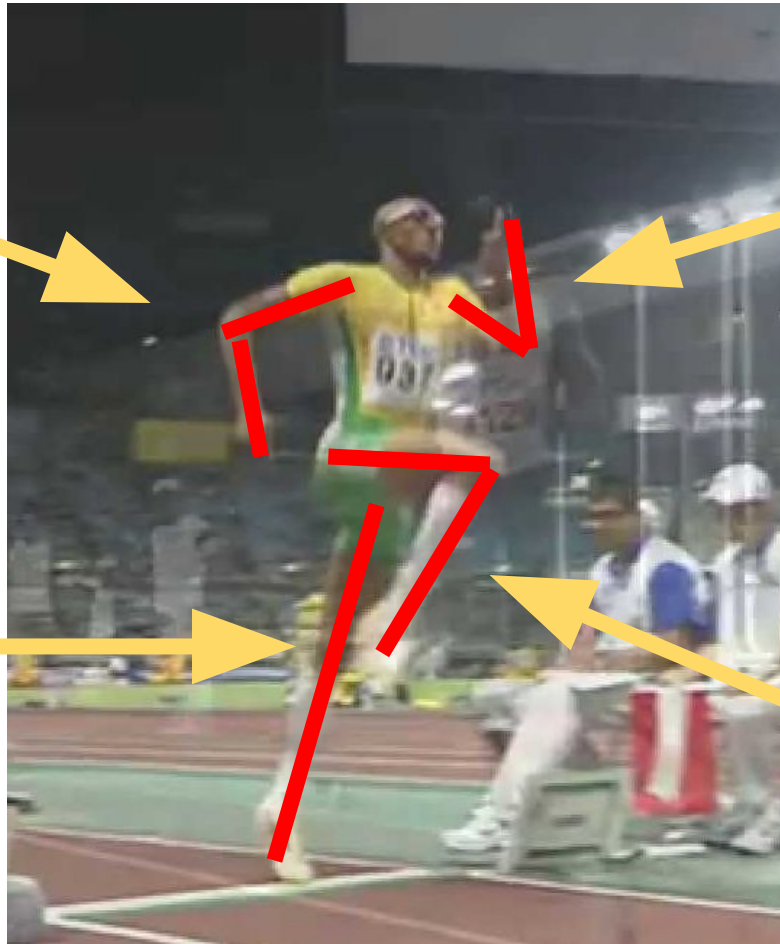
THE TAKEOFF CONTINUED...

Here's an image I feel clearly shows the proper takeoff:



ELBOW FORCIBLY
SWUNG
BACKWARDS -
MIRRORING
SPRINTING

JUMP LEG PUSHING
IN AN UPWARD &
OUTWARD
DIRECTION

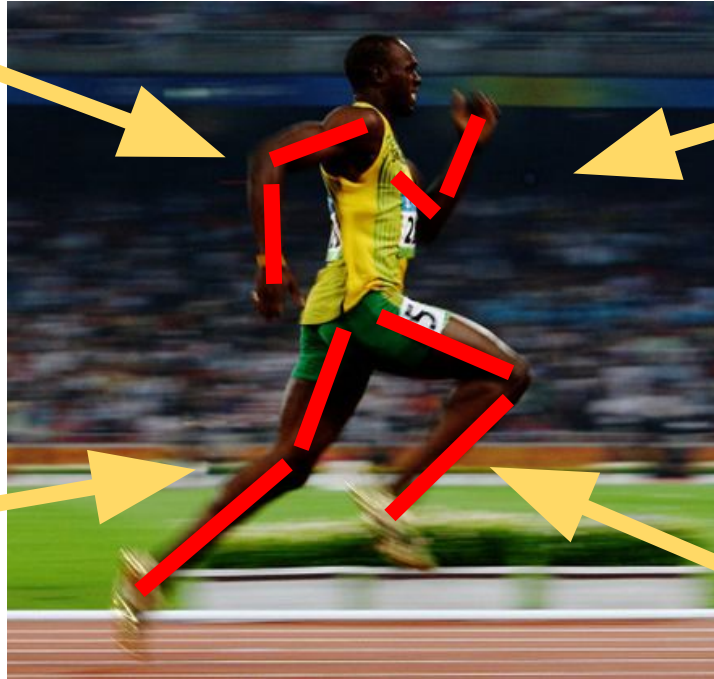


OPPOSITE ARM
DRIVEN
AGGRESSIVELY TO
AID IN THE TAKEOFF
(MOMENTUM)

OPPOSITE KNEE
DRIVEN
AGGRESSIVELY TO
AID IN THE TAKEOFF
(MOMENTUM)

ARM IS IN ROUGHLY
THE SAME PLACE

ARM IS IN ROUGHLY
THE SAME PLACE



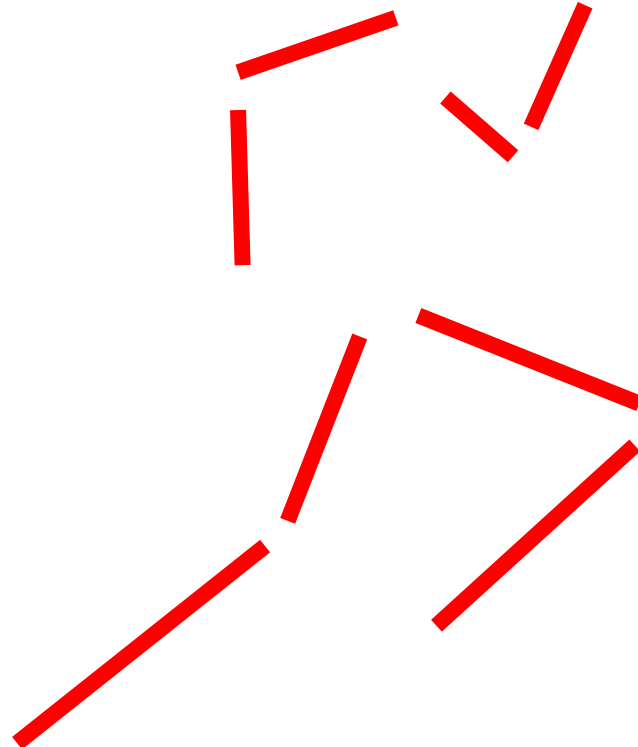
LEG IS NO LONGER
PUSHING OUTWARD
& UPWARD -
MOSTLY OUTWARD
NOW.

OPPOSITE KNEE
DRIVEN
AGGRESSIVELY BUT
NOT TO THE
EXTENT OF A LONG
JUMPER AT
TAKEOFF

JUMPER



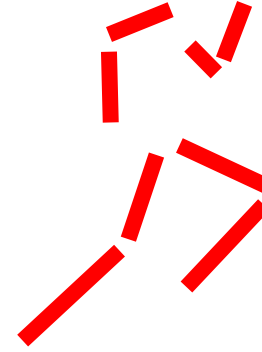
SPRINTER



JUMPER



SPRINTER



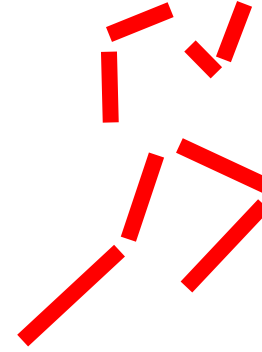
The differences (mainly seen in the legs) are clear when looking at the two illustrations. This clear difference is what makes the penultimate step that we discussed earlier SO IMPORTANT.



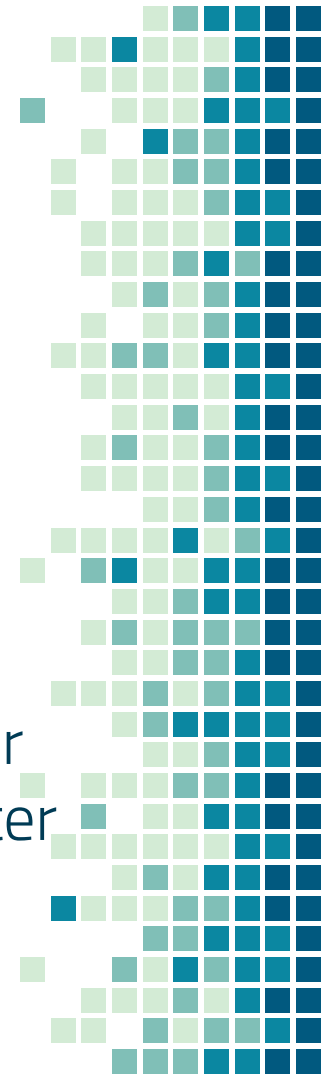
JUMPER



SPRINTER



Without the penultimate step the athlete's hips won't reach the desired height and will result in a much lower trajectory at takeoff. A lower trajectory means a shorter amount of time in the air. That means a smaller jump.



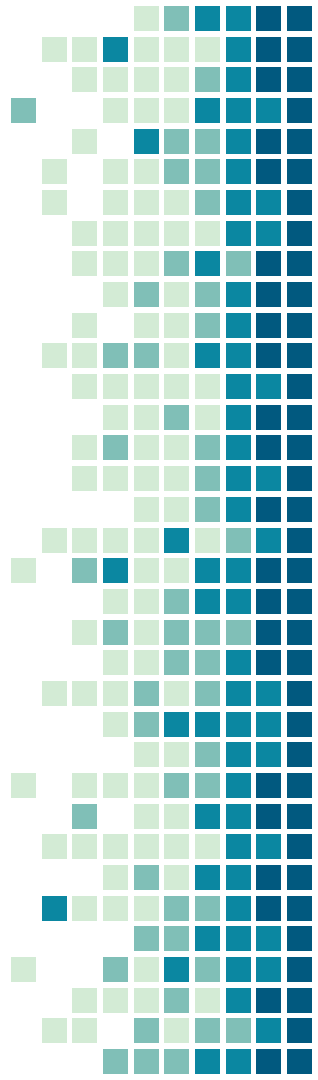
JUMPER



As a long jump coach you need to be very observant of whether or not your athletes are performing the proper takeoff in practice and at competitions to be the most successful.

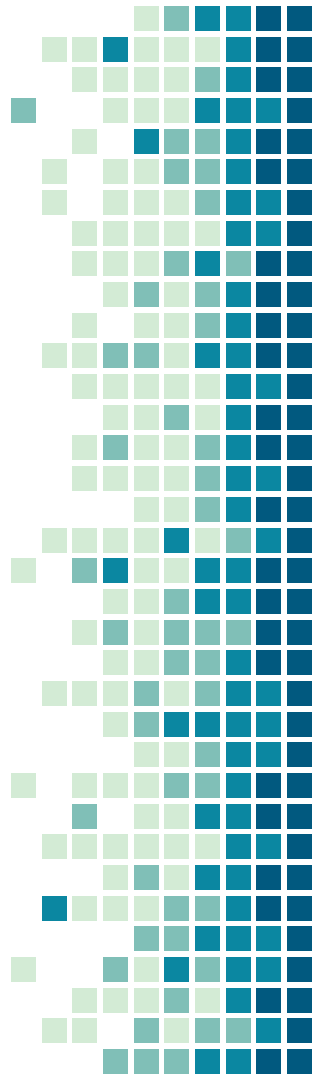
THE FLIGHT

Once the athlete is in the air he/she cannot change their flight path. Everything is predetermined after they leave the ground. Flight though, can greatly affect how jumpers land; and landings are **crucial** in jumping to one's potential.



THE FLIGHT CONTINUED...

There are three types of flight that are generally used by long jumpers. I only suggest **TWO** of them - the “hang” technique and the “stride” technique. These two techniques have much less movement, and thus are easier for high school jumpers to perform properly.



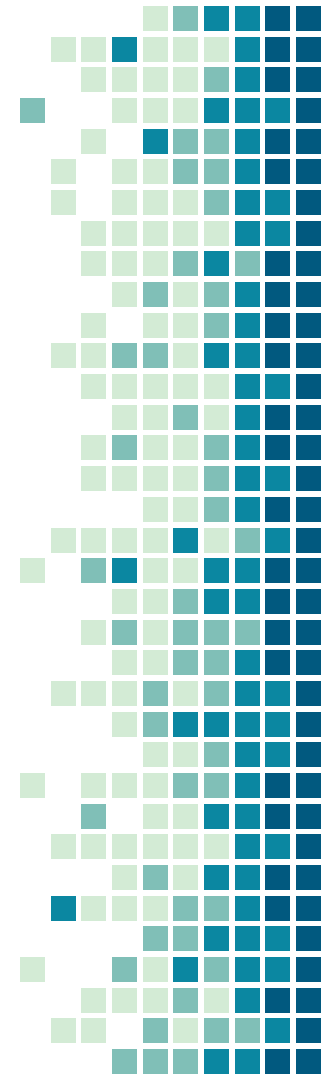
THE FLIGHT CONTINUED...

Here is the “hang”
technique:



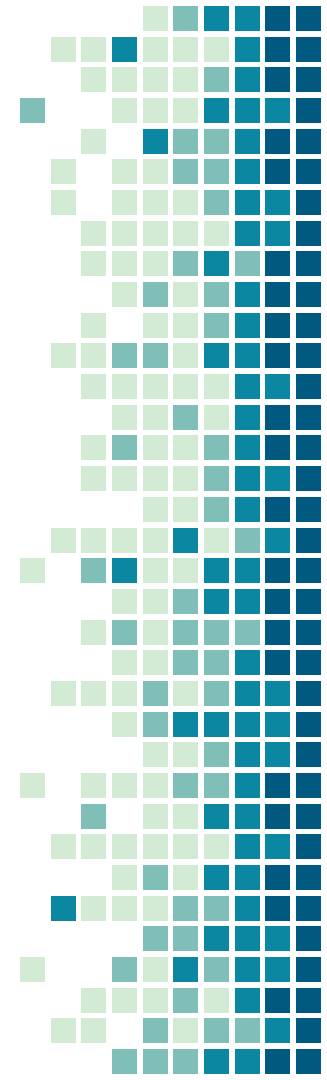
THE FLIGHT CONTINUED...

Here is the “stride”
technique:



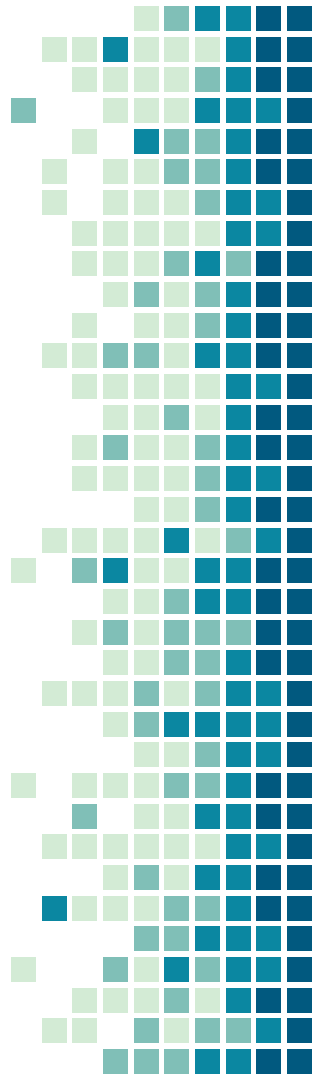
THE FLIGHT CONTINUED...

Here is the third technique (the “hitch kick”) that I highly recommend **NOT** doing:



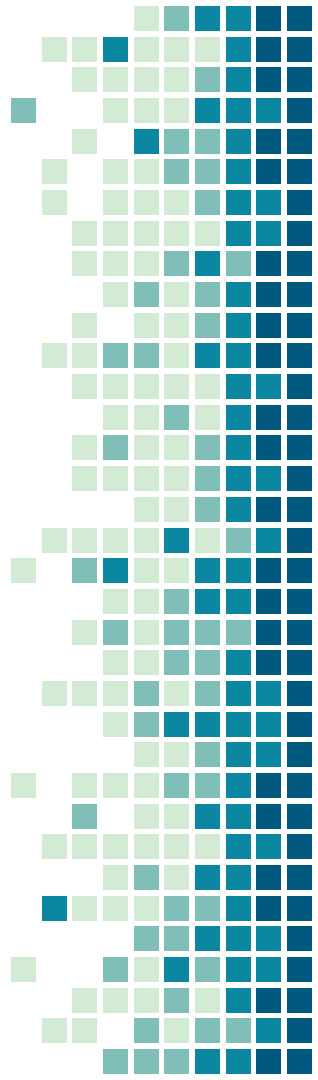
THE FLIGHT CONTINUED...

The “hitch kick” technique is actually the best of the three techniques because it helps athletes to keep their speed off the board. The difficulty in executing this technique though make it nearly impossible for high school athletes to perform properly. I have watched hundreds of videos of this technique and collegiate/Olympic athletes are doing it wrong...



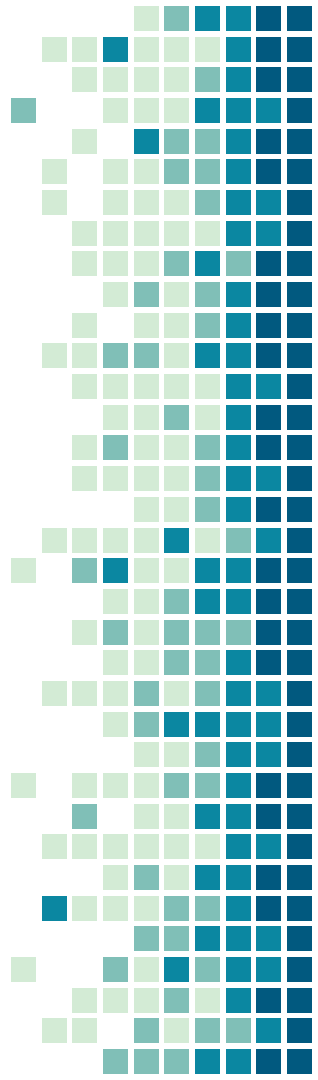
THE FLIGHT CONTINUED...

In no way am I telling you that you can't use the "hitch kick" technique, but am suggesting to only use it if you have an extremely high-end jumper that is looking for that "next challenge".



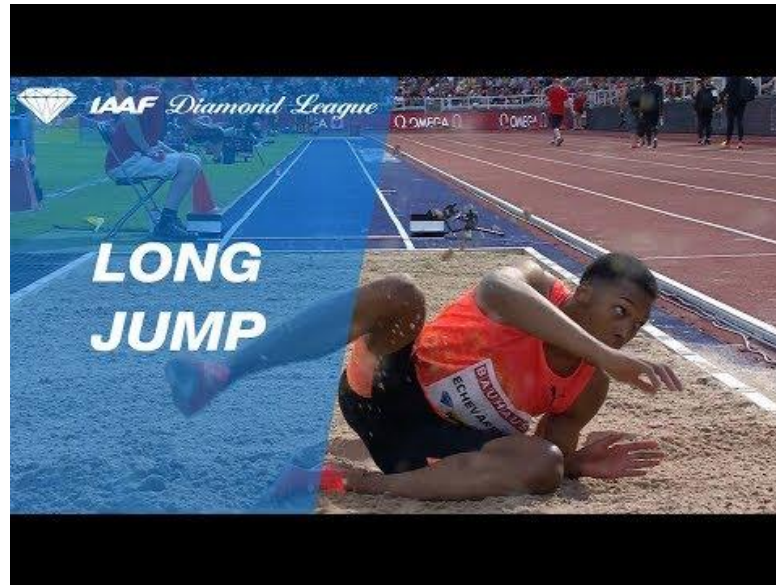
THE LANDING

Once in the air, a jumper must determine when/how to land. **This is the most difficult part/phase of the long jump and is often done incorrectly** (even by experienced jumpers!). I highly recommend what I call a “heel to butt” landing as I feel it is the only technique that maximizes distance.



THE LANDING CONTINUED...

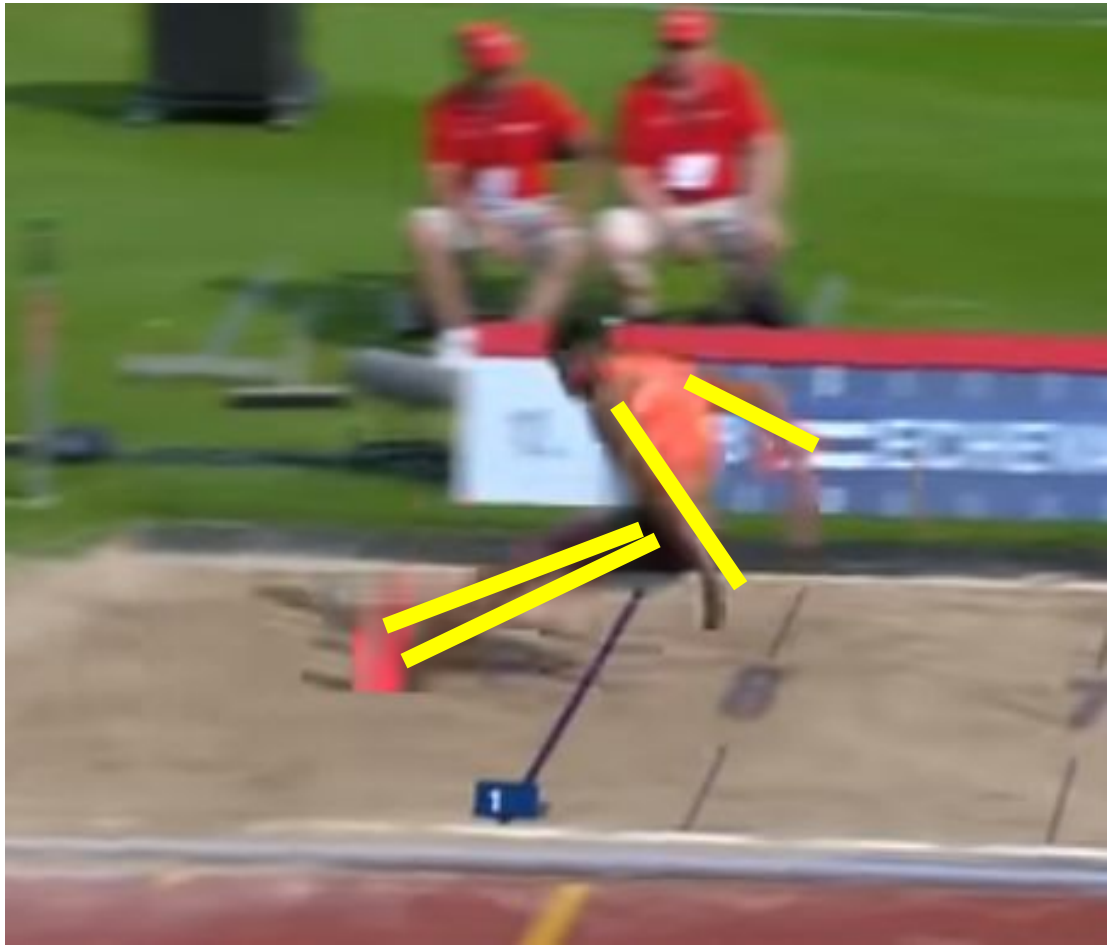
Let's revisit the jump that we saw earlier to see how he landed:



THE LANDING CONTINUED...

Here is a picture of him entering the sand:

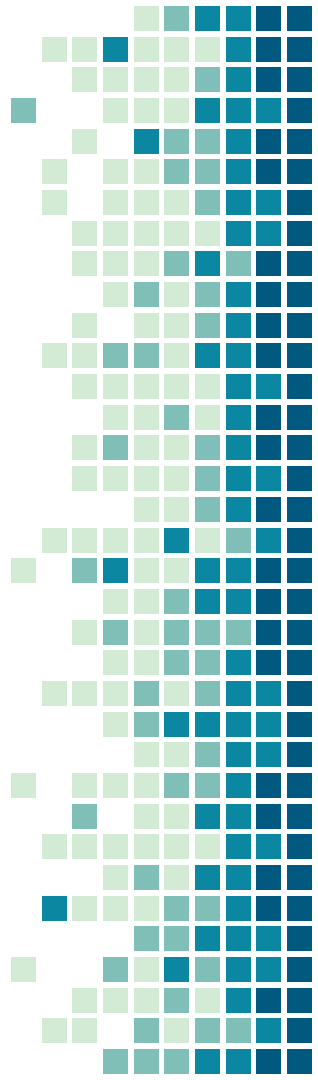
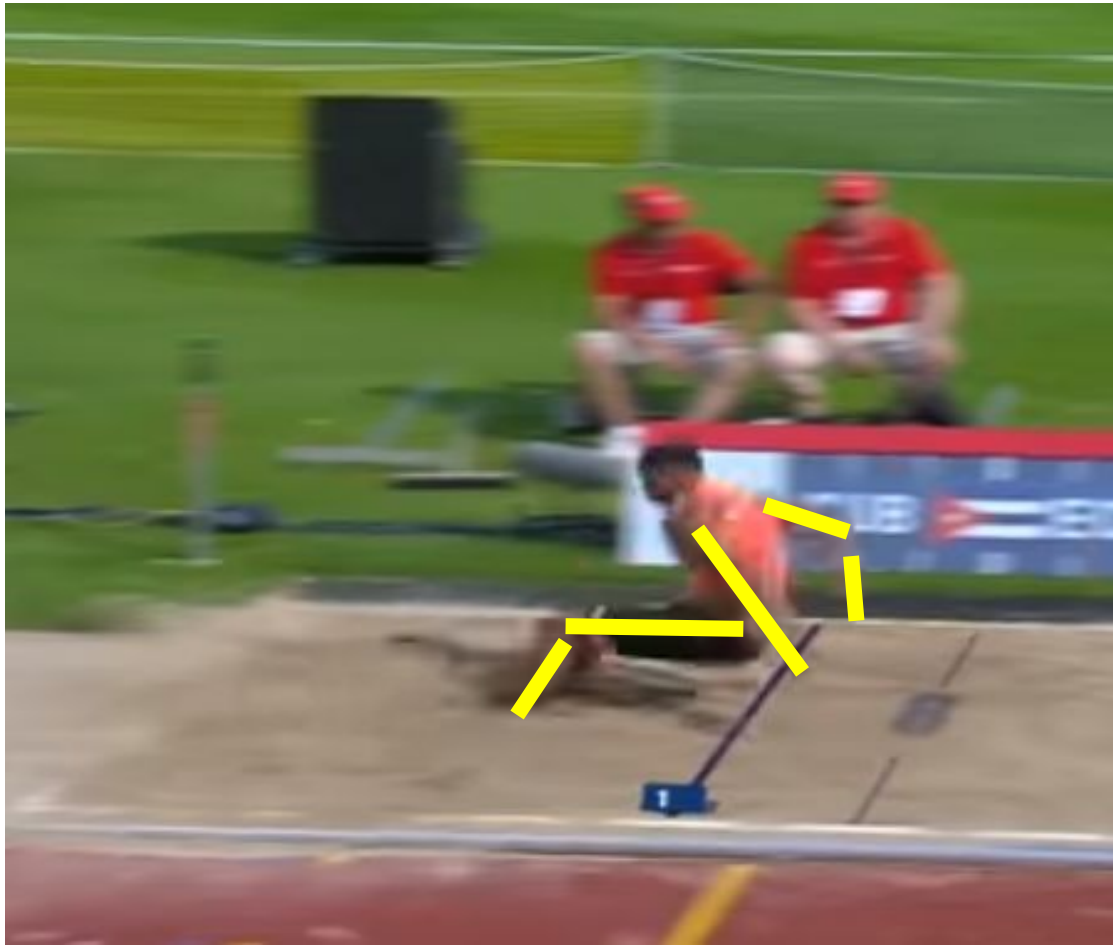




THE LANDING CONTINUED...

After the heels hit the sand, the jumper bends his knees:

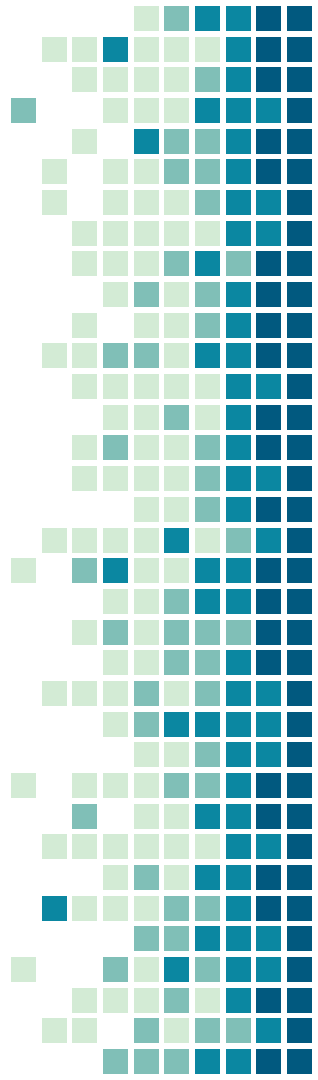




THE LANDING CONTINUED...

Once the heels hit and the knees have bent, the jumper's momentum should bring their bottom to their heels.





THE LANDING CONTINUED...

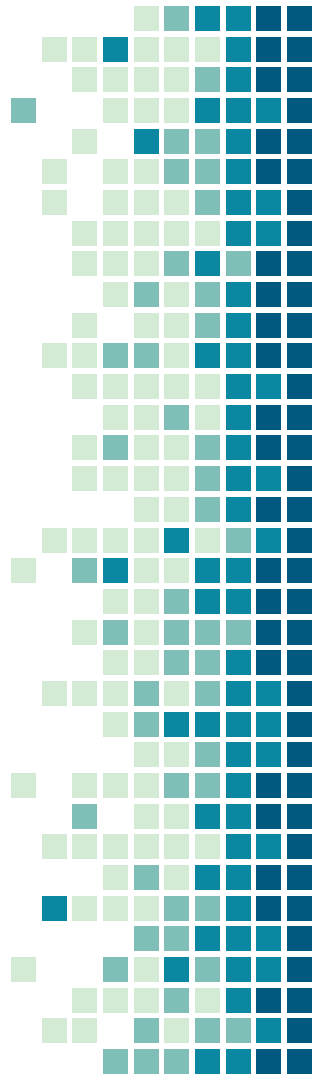
At this point the jumper should “tuck” his/her arms to their side as to not make a mark in the sand **behind** their initial touch.



THE LANDING CONTINUED...

As you can see in this picture Juan did not “tuck” his arms and instead did what I call the “elbow dig” finish. Watch it again and tell me what you see...





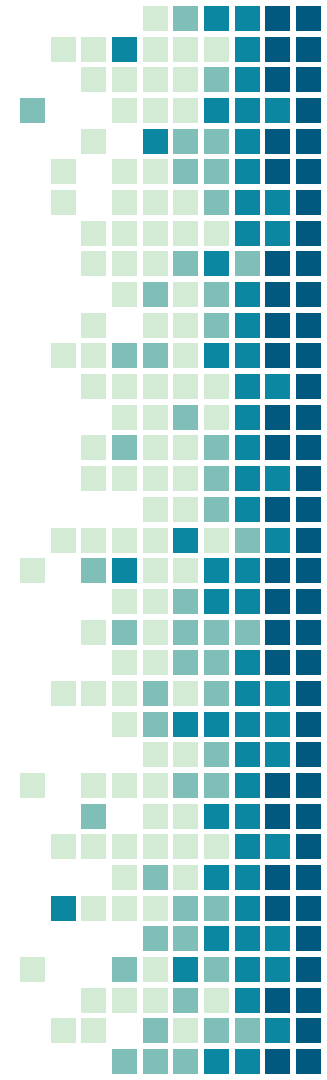
THE LANDING CONTINUED...

Juan marked the sand **BEHIND** where his initial contact was - this resulted in a loss of roughly 4-6 inches. That is a HUGE number when discussing jumps!



THE LANDING CONTINUED...

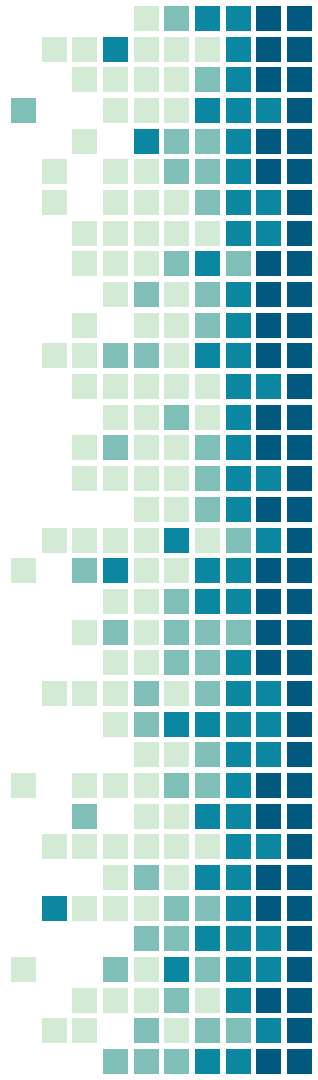
After the athlete's bottom has traveled to his/her heels, it will force the legs/feet out of the way by pushing them forward. Juan could not perform this part of the jump (very well) because was stopped by the end of the pit from doing so. When done right, you should see a large "explosion" of sand erupting from the pit.





 depositphotos

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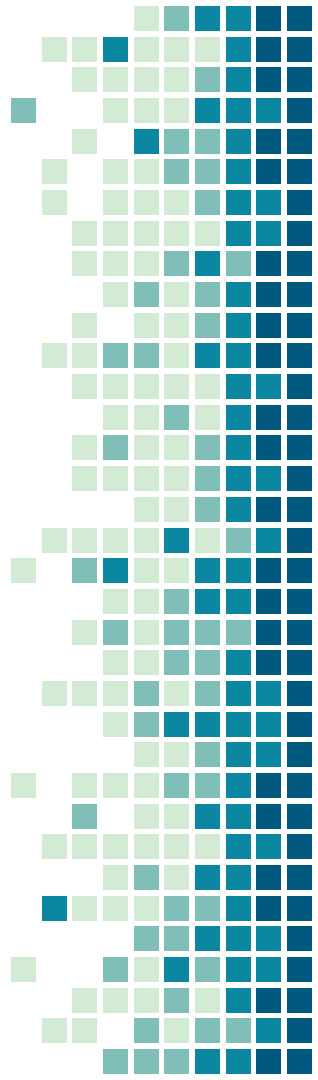
THE LANDING CONTINUED...

There is no better drill/resource than this video on YouTube (created by Cameron Gary).



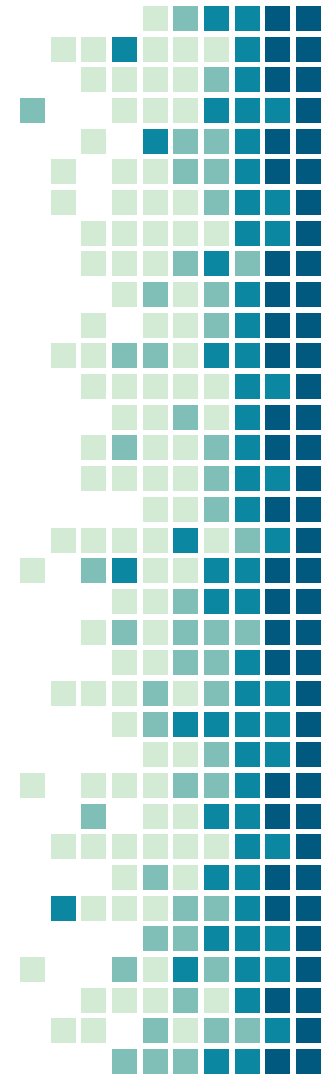
THE LANDING CONTINUED...

Cameron's progression here is **great** and something I have referenced many times in my development as a coach. Here is how I have changed my own progression to help athletes understand the landing...



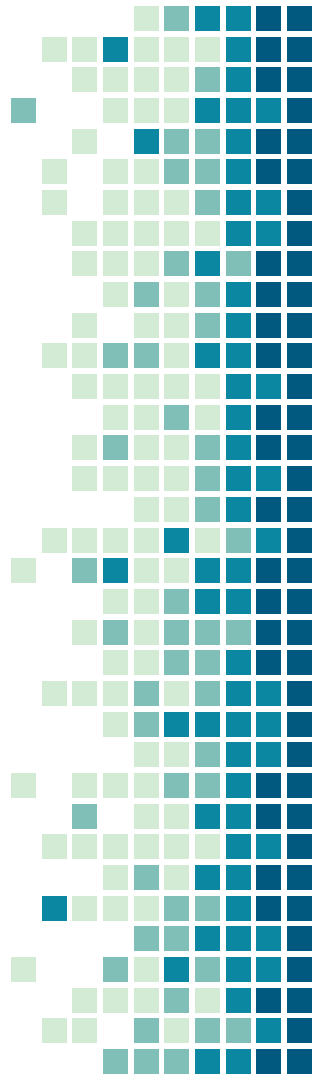
THE LANDING CONTINUED...

- 1.) Repeated chair landings
- 2.) Flat-Flat drills off of 6" box into HJ mat or pit
- 3.) Step 2 - hold arm and knee drives
- 4.) Step 3 - transition to a "seated position" midair
- 5.) Stand on an 18" box and do "towel swipe" drill
- 6.) Connect everything together
- 7.) Standing long jump progression



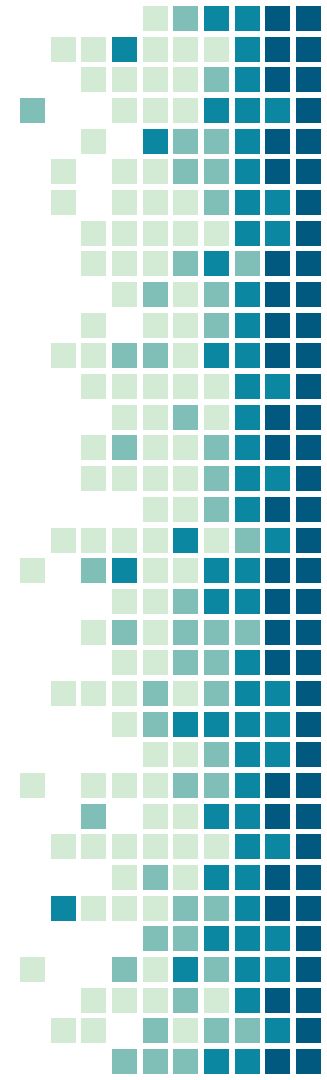
GENERAL SUGGESTIONS

- 1.) Spend a large percentage of your time working on starts and approaches. The two things are extremely important and shouldn't be overlooked.
- 2.) Make things progressive in nature like I showed in the last slide. Keep things simple so your athletes **understand** your coaching cues.



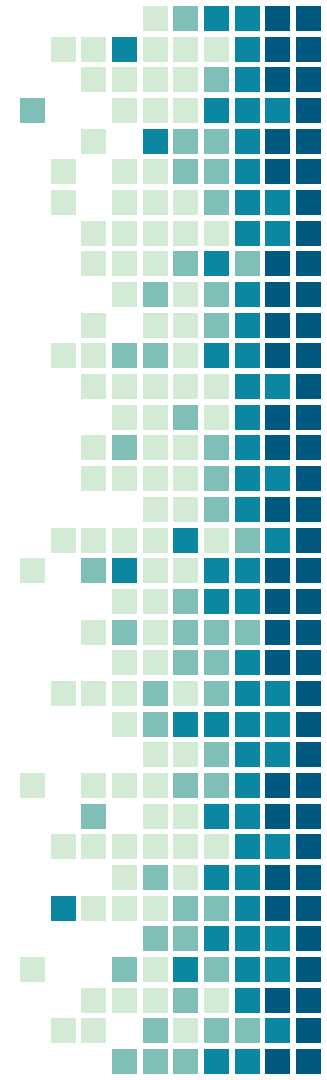
GENERAL SUGGESTIONS CONT...

- 3.) Periodize your training to avoid injuries.
 - a.) First 3-4 weeks - a lot of volume! PUSH THEM!
 - b.) The next 3-4 weeks - focus on specific needs of individuals - Less volume.



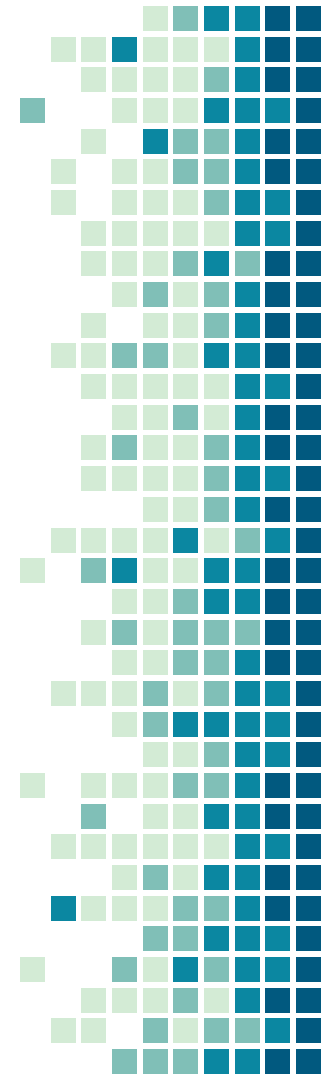
GENERAL SUGGESTIONS CONT...

- c.) The next 2-3 weeks - Less volume, more intensity, focus on perfecting all phases of the jump.
- d.) The last 1-2 weeks - **Very** low volume, stop weight training, and intensity at an all-season high.



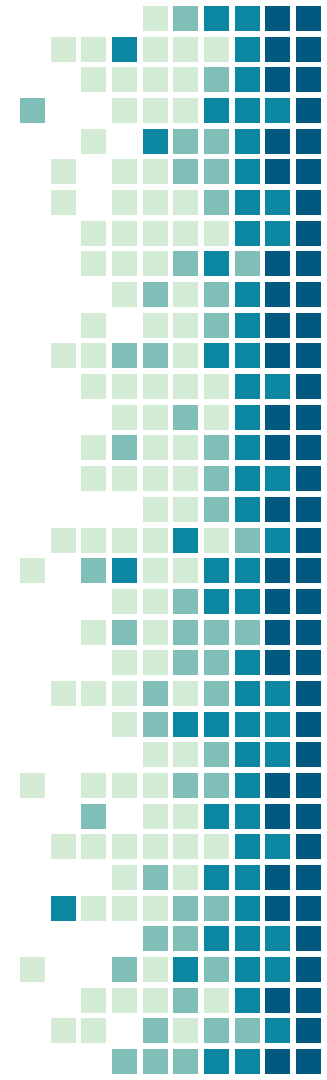
GENERAL SUGGESTIONS CONT...

- 4.) Weight training should also follow a periodized plan
 - a.) First 3-4 weeks: Functional (all body) strength
 - b.) Next 3-4 weeks: Even specific lifts (Olympic, front/back squats, DL, and RDL).

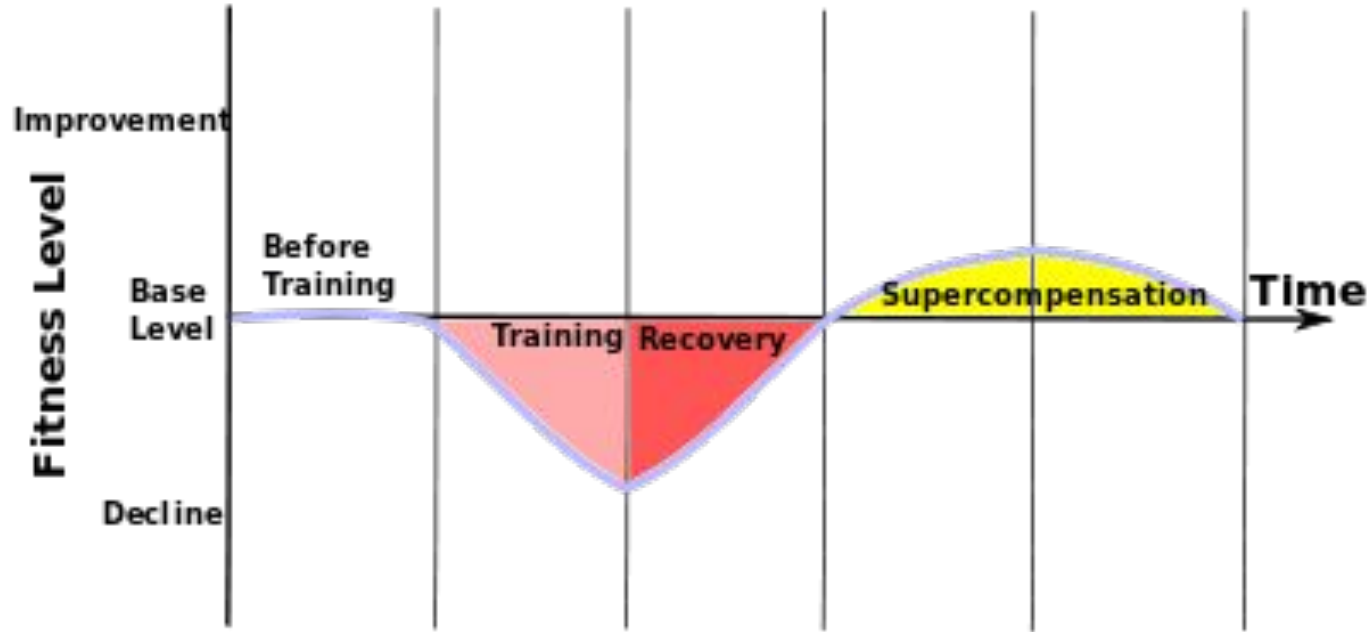


GENERAL SUGGESTIONS CONT...

- c.) Next 2-3 weeks: Explosive event specific lifts with more intensity (weight) and less volume (reps).
- d.) Last 1-2 weeks: Stop lifting all together and allow the body to “super compensate” for any postseason meets.

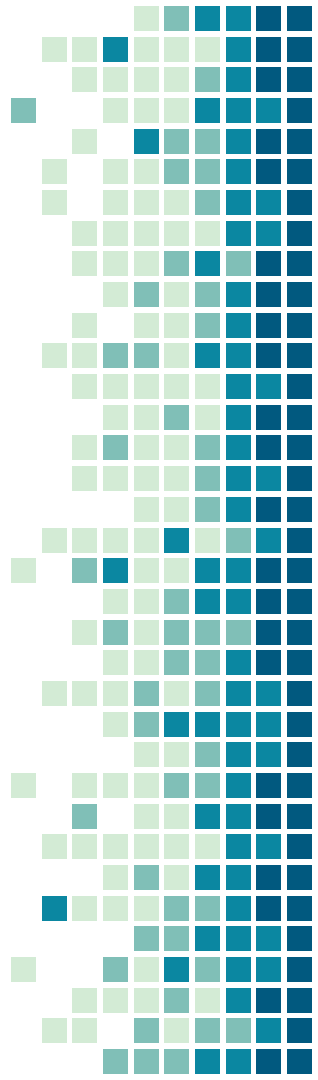


GENERAL SUGGESTIONS CONT..

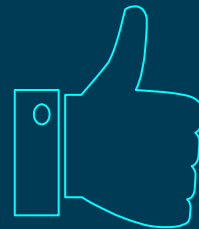


GENERAL SUGGESTIONS CONT...

- 5.) Spend A LOT of time on flight and landing work. Even if you are stuck indoors most of your season you can easily train this on a daily basis (chair drill, jumping into HJ mat, etc.).
- 6.) Make athletes visualize/study the jumps. The better the brain understand the better the performances!



THANK YOU!



Thank you so much for the opportunity to present about the long jump. If you have **any questions** please don't hesitate to reach out! You can find my information on www.longandtriple.com or you can email me at longandtriple3@gmail.com. Good luck this season!!!