



Developing a Model for Discussing the Throwing Events Considerations for Training the Javelin

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50 MINUTES! WAY TOO SHORT!

- I am so very thankful to be invited to share
- I am here for you
 - Questions whenever they pop up
 - Socratic Seminar
 - Watch video (yours, mine, internet)
- I do have three presentations prepared and that can be a starting point

THIS IS NOT A BALL SPORT

- THERE ARE NO SECRETS IN TRACK & FIELD
 - Even Boo Schexnayder learned from someone!
- Real Track Coaches understand the importance of mentoring



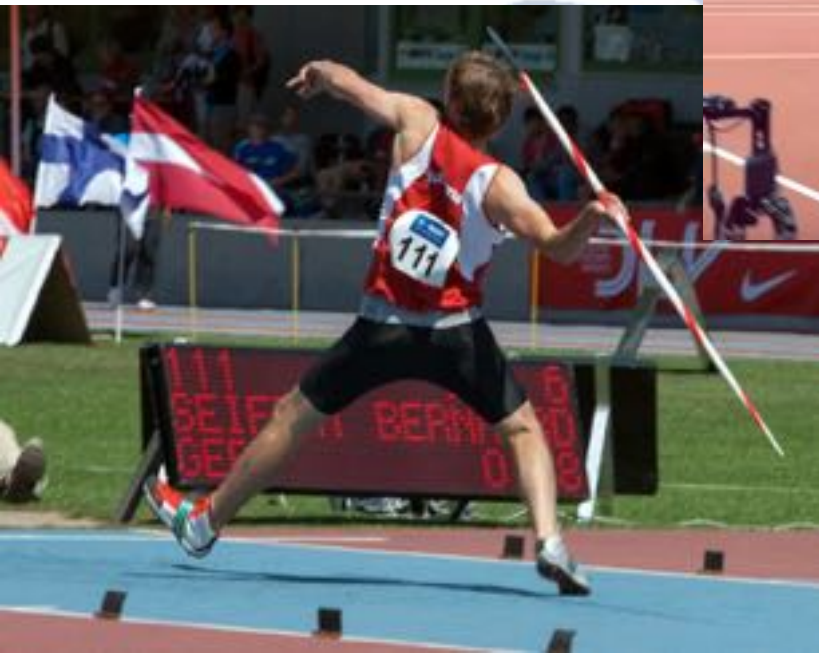
MY “MENTORS”

- Boo Schexnayder
- Kyle Pierce
- Derek Yush
- Glenn McAtee
- Jerry Clayton
- Don Hood
- Dave Anderson
- Dan Pfaff
- David Kidd

- Don Babbitt
- Cliff Rovelto
- Dennis Shaver
- Todd Lane
- Erica Fraley
- Ramona Pagel
- Hollis Conway
- David Swacker
- Vern Gambetta

There are weeds everywhere!

- All weeds have roots



Most Important Factor in Determining Throwing Success

- Velocity of implement at release
- Slow – Fast Rhythm
- Acceleration ***SHOULD*** be consistent and positive

- Velocity (speed) defined (PRACTICALLY)
 - As fast as you can do it
 - As fast as you can do it correctly

Angle of Release of Implement

- Angle of release of the implement with respect to the ground
 - 42° considered the optimal biomechanical angle of release at most heights
 - Varies with implement and (to some degree, thrower)

OK, lets argue

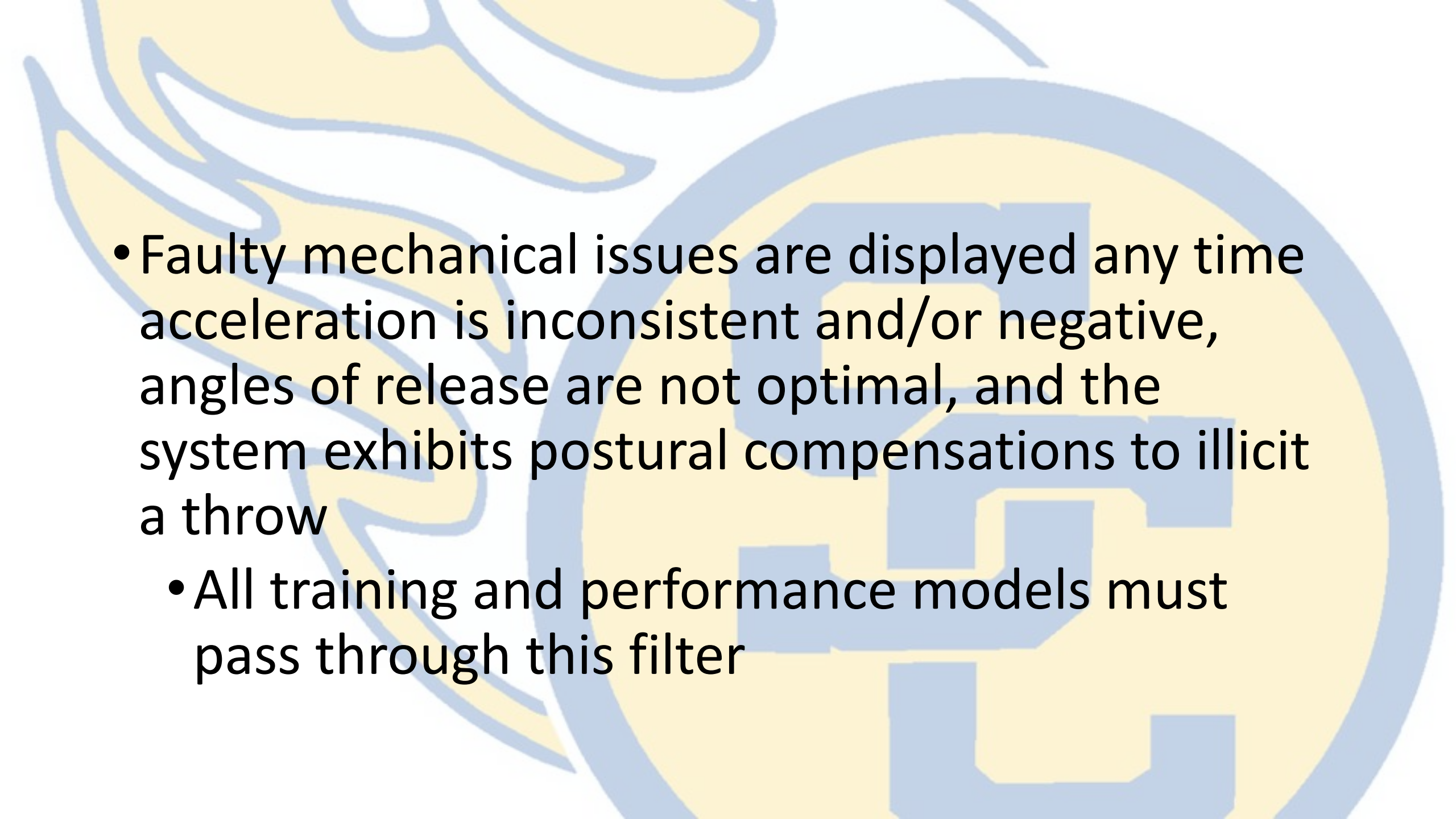
- SHOT: 34-38ish degrees
- DISCUS: 32-37ish degrees
- JAVELIN: 36-40ish degrees
- aerodynamic events and angles of attack;
digital demo
- Most novice throwers are too low (even in Javelin– its an angle of attack issue)

Height of Implement at Release

- The height above the ground at the moment of release.
- As with everything in Track and Field, at the moment of truth, you should be as tall as you can be.
 - “Triple Extension”
- The higher the release point, the greater the distance the implement will travel
- This can and should be coached (should be a byproduct of appropriate technique)

Points of Emphasis: Velocity/Angle/Height of Release

- All throws have appropriate grips, preliminary movements, approaches, delivery positions, and optimal strike mechanics.
 - Delivery in every throw begins at the end of the approach when the plant/brace/left leg-foot returns the system to double support

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- Faulty mechanical issues are displayed any time acceleration is inconsistent and/or negative, angles of release are not optimal, and the system exhibits postural compensations to illicit a throw
 - All training and performance models must pass through this filter

Common Examples

- Javelin Run Up/Crossover-Wrap/Transfer then Turn

You Must Develop a Technical Model



JAN ZELEZNY
WORLD RECORD
98.48



Approach, Delivery, Strike, Recovery

The javelin technique sequence comprises of 4 phases: An approach, a 5-step rhythm, throw and recovery.



Approach

Step
1

Step
2

Step
3

Step 4
Drive

Step 5
Throw

Recovery

Stander, 2006, p.2

Grip and Carry



The Approach

- Consists of a run, withdrawal, and crossover steps leading to delivery
- The full approach should be measured or at least the portion from the withdrawal onward should
- The javelin should be delivered at least 6-7ft prior to the scratch arc to ensure acceleration through release



Novice Training

- Velocity of implement at release? As fast as you can do it right?
- Begin training all aspects of the approach (run in, withdrawal, crossovers) as soon as possible
 - 2 days a week Jav folks work approach with Jumps/ top end mechanic with Sprints?
- Forget the spear— carry an open bottle or solo cup full of water
- Graduate to the jav— purpose of the drill?

Withdrawal

- Run away from the javelin
- You decide which step to use (I prefer on the right because it creates hip/shoulder separation)
 - I think this makes it easier to transition into crossovers with the hips “snapping” the left into place to begin the crossovers
- I prefer to cue “pull, sweep” for the crossover action
- This is an acceleration!



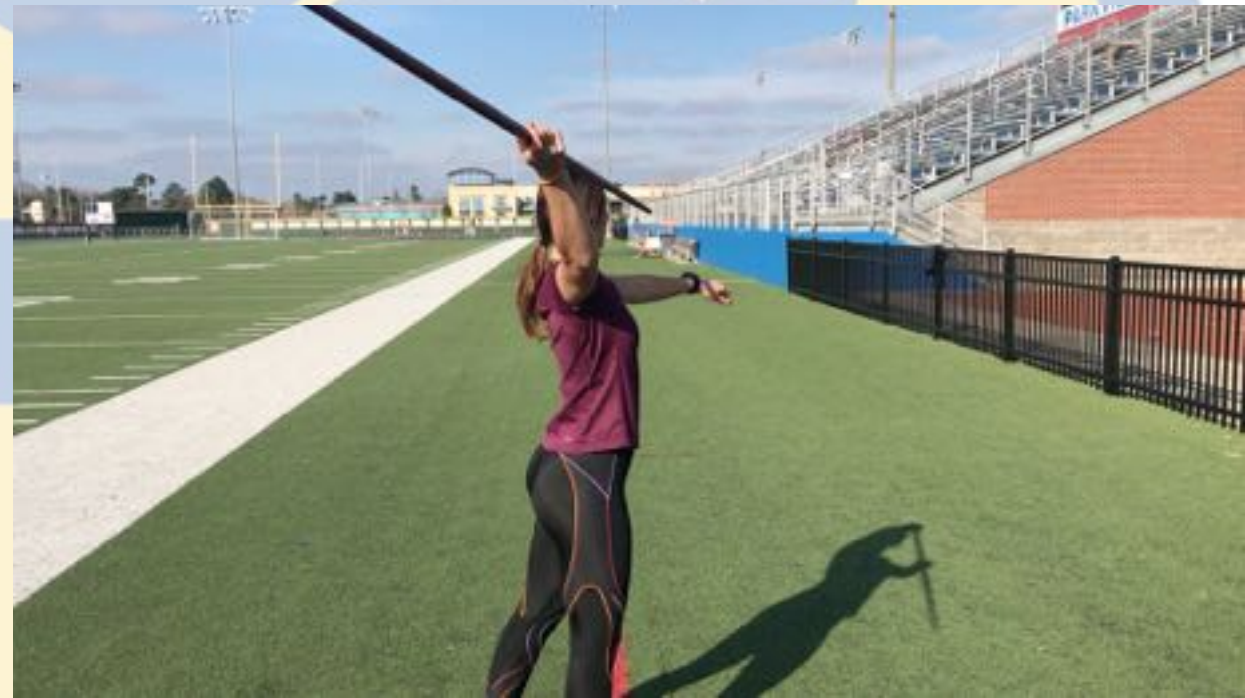
Withdrawal

- Javelin should be withdrawn to facilitate carrying:
 - Above the shoulder
 - Palm to the sky
 - Elbow to the ground
 - Negative attack angle
 - Under control
- Tip near eyebrow?
- How does the left arm help?



Crossovers

- Pull, sweep
- Knee flexion so it looks “bouncy”
- Chest big; Squeeze shoulder blades together
- Relaxed carry above shoulder, palm to the sky, negative attack angle
- Working on a line is not for what you think
- 90 degree orientation is not necessary



Crossovers

- Left side counter balance/rotation action?



5-4-3 And Throw



The Impulse Step

- The last left foot contact (3 of 5-4-3) is commonly referred to as the impulse step.
- Very forceful and produces a significant flight phase that enhances the final hip/shoulder separation prior to delivery
- During flight, left is recovered quickly in preparation for the plant



Javelin Technique with Jan Zelezny (You Tube)



The Plant Step

- The “Throw” of 5-4-3 And Throw
- Where delivery begins
- Left leg contacts heel first with minimal flexion
- Must facilitate blocking and lifting of the system
- Minimize weight shift--- you must transfer and turn not transfer then turn



Delivery



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Delivery

- The body is the handle of the whip and the arm is the whip itself
- Strike occurs through the tip (spike a volleyball?)
- Release is high and in front of the body
- Javelin should fly like a motor is in the tail



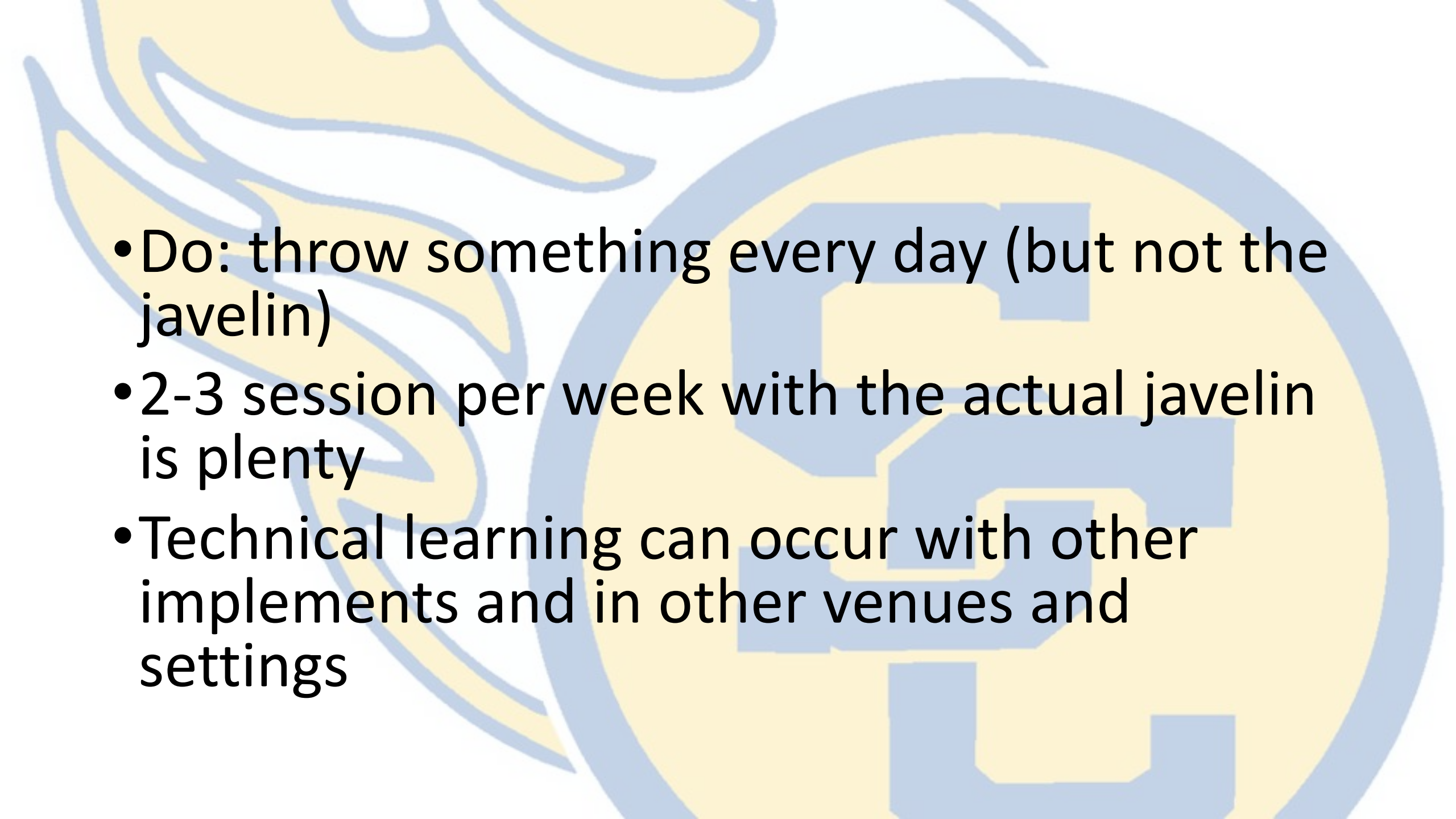
Reality v. Royalty

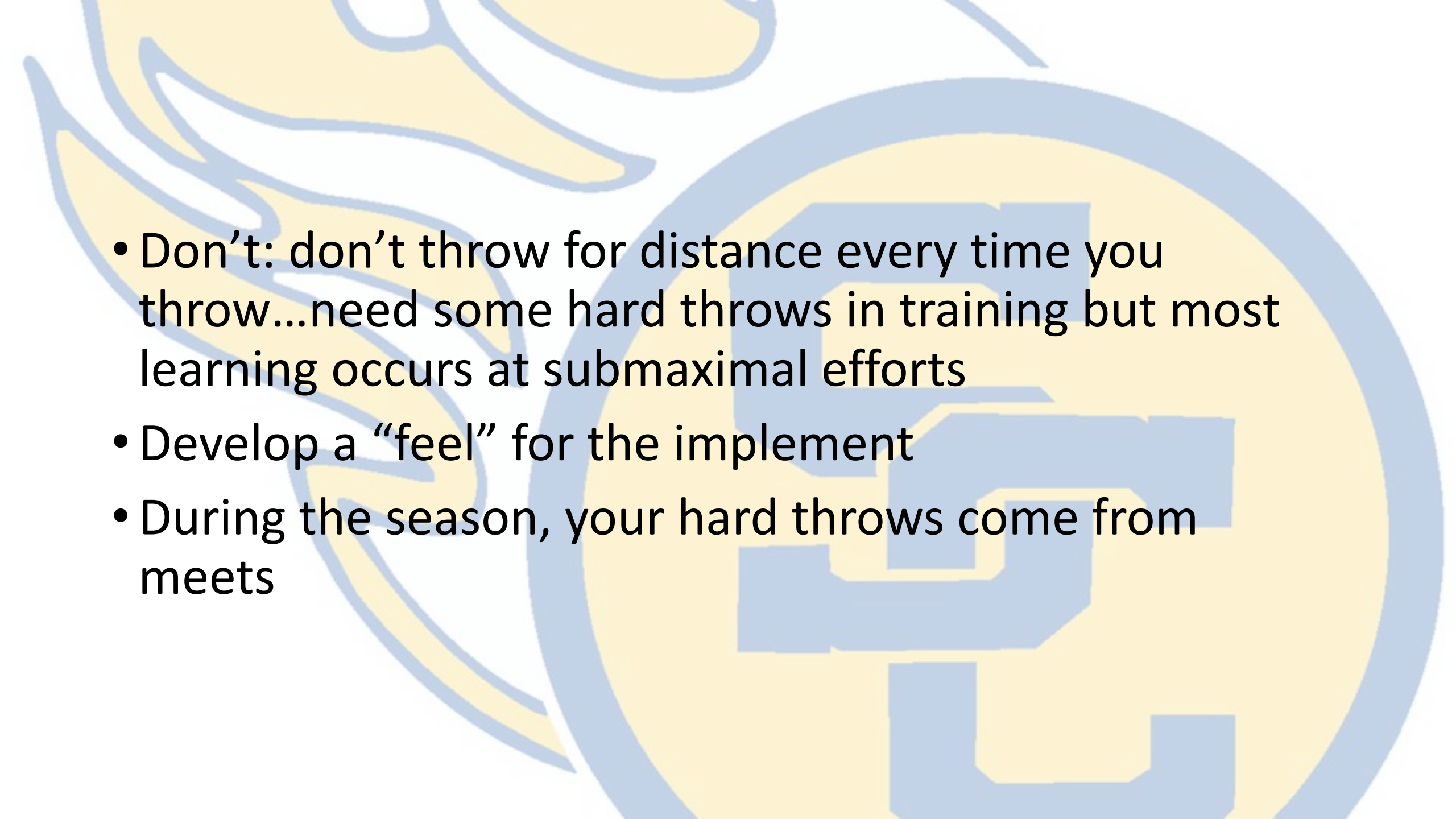


Do's and Don'ts (thanks Glenn)

- Teach safety protocols and inspect safety daily
- Implement of war
- Last death 2013 in New Jersey

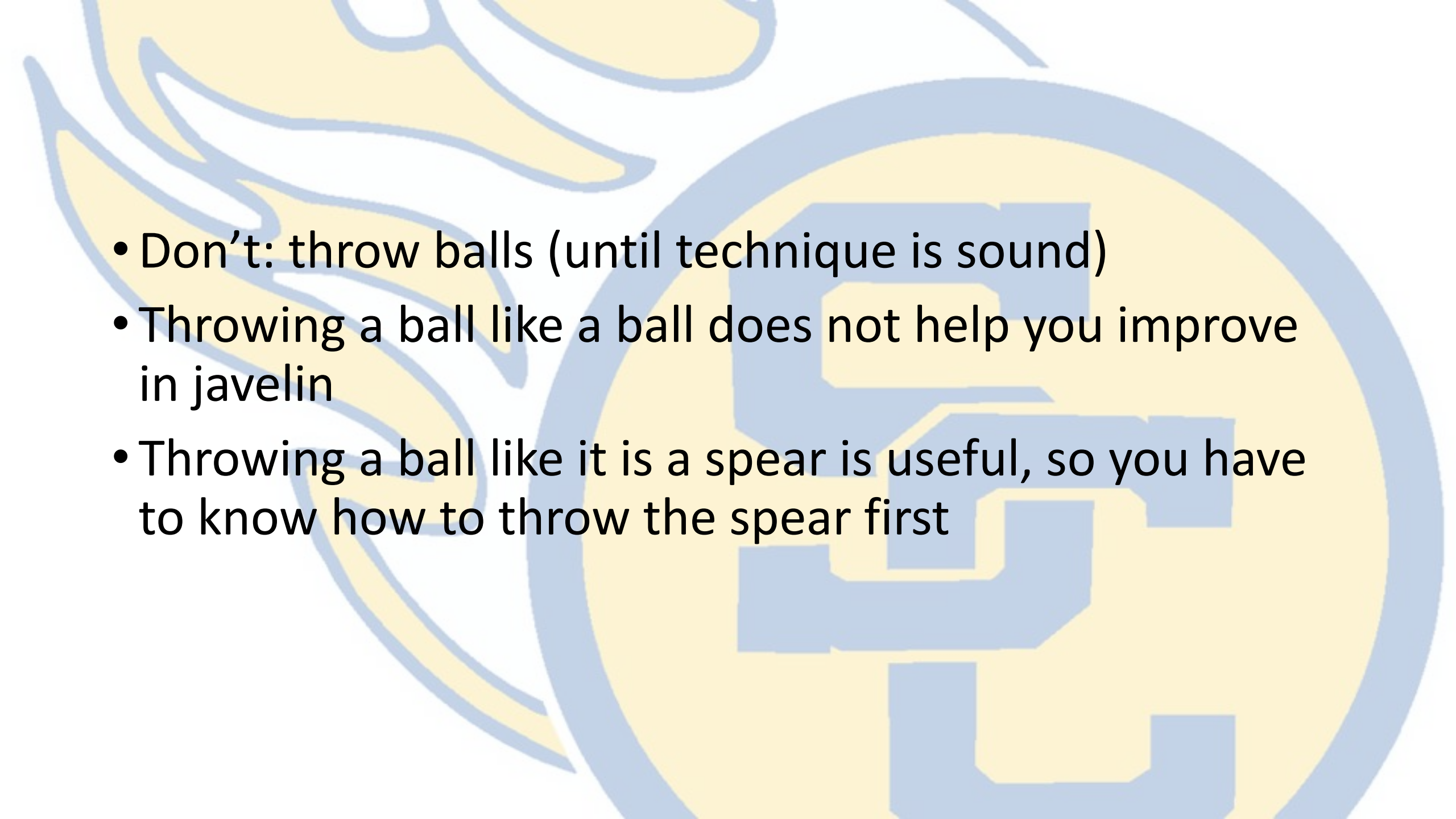


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- Do: throw something every day (but not the javelin)
 - 2-3 session per week with the actual javelin is plenty
 - Technical learning can occur with other implements and in other venues and settings

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- Don't: don't throw for distance every time you throw...need some hard throws in training but most learning occurs at submaximal efforts
 - Develop a “feel” for the implement
 - During the season, your hard throws come from meets

- Do: improvise implements
 - Aero Javs
 - Arrows
 - Bamboo
 - Broken cross bars
 - MB: specific throws
 - MB: general throws
 - Bowling Pins
 - Other ideas?



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- Don't: throw balls (until technique is sound)
 - Throwing a ball like a ball does not help you improve in javelin
 - Throwing a ball like it is a spear is useful, so you have to know how to throw the spear first

Full Approach

- Don't: wait until the short throws look good to start developing runway skills
- Runway work should begin on day 1
- Takes time to develop the runway
- Jumps coaches are at an advantage

Full Approach

- Do: start runway skills on day 1
 - Running with javelin OH
 - Running with javelin withdrawn
 - Withdrawing the javelin
 - Penultimate step mechanics
 - Different rhythms and intensities
- Teach running mechanics first?

Short Approach Throws

- Do: most of your throws from 5 or 7 steps
- Stands and 3 steps are only for learning: hard to do it right without some speed!

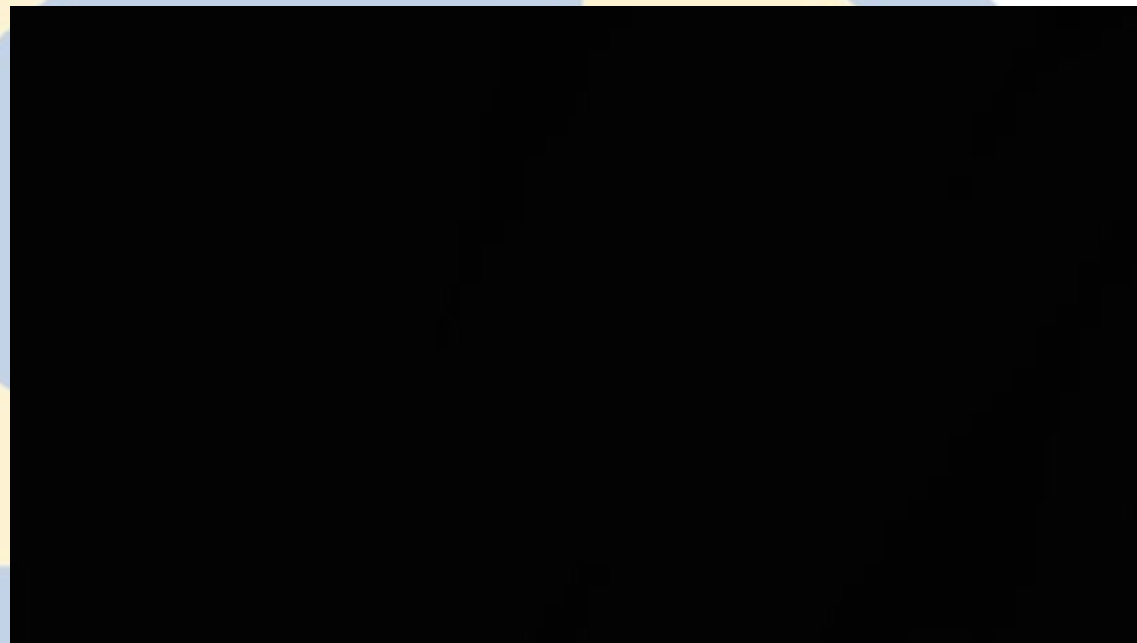
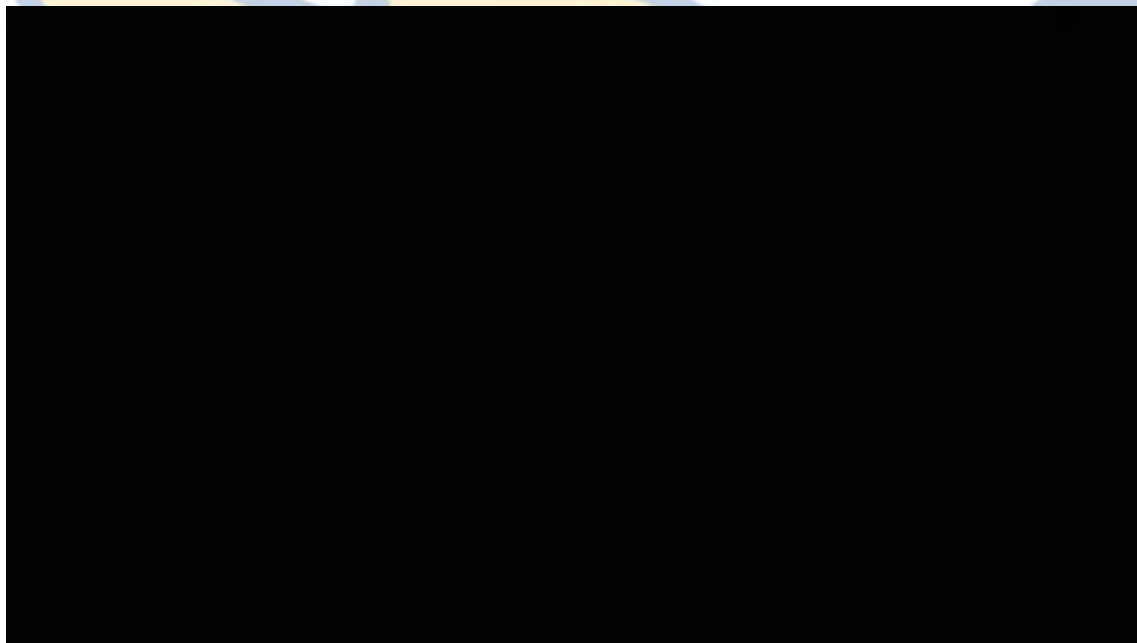
Short Approach Throws

- Don't: take too many hard throws from a short approach (hard on the arm and shoulder)
- Short throws don't transfer well (not like glide shot)

Med Ball Drills to Train the Strike

- Throwshub.co.uk
- Aths.coach
- Trackwired.com
- Throwsuniversity
- Trackandfieldcoach.com
- Trackandfieldtoolbox.com
- Everythingtrackandfield.com
- Brianmac.co.uk

Or



Questions?

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