

Learning how and when to make technical refinements for the throwing events

April Thomas
Men's & Women's Throws Coach
Mississippi State University
athomas@athletics.msstate.edu

The Concept of Technical Refinements

- To make the appropriate refinements to technique when they need to be made.
- The refinements have to be obtainable.
- To make relevant refinements to technique, based on the physical athletic ability of the athlete so that the athlete can have a break through.
- To make refinements when athletes get complacent with their technique.
- Make sure that how you refine the technique does not affect the thrower but has a direct effect on the throw itself.

Making appropriate refinements to technique when they need to be made

- ◆ **Before you start implementing refinements think of the different outcomes that will make the refinements effective.**
 - **Kinematic Change** – Your athlete will come to you with certain learned biomechanical patterns that have been developed over time. It could be because of how they were taught or it could be from compensations due to high levels of training. In order to make the refinements more effective and efficient, you have to make kinematic Changes.
 - ❖ Firing muscles in the correct patterns
 - ❖ Firing the muscles in the correct pattern with motion
 - ❖ Firing the muscles in the correct patterns with motion through their whole length of movement
 - **Long term permanent patterns** – Constant Repetitions. These refinements must become second nature to the athlete. How long does it take for the athlete to make a habit of the changes?
 - **Pressure resistance** – Can the athlete perform the changes when they are needed most? The athlete can't just perform at practice - they have to be able to do it when it counts.
 - **Your Coaching knowledge** – How are you teaching the refinements? This is the process of how the refinements will be accomplished. You are the coach. You have to know why you are making the changes and why they need to be changed. If you don't know why the changes need to be implemented to make performances better, then the athlete will be unable to effectively perform the refinements.

Making appropriate refinements to technique when they need to be made

◆ How

➤ Practice

- Whatever aspect of the throw that you are changing takes practice. Use different drill variations until they have the understanding and can physically do the change.
- Repetitions. Like I just said it has to be second nature so how much time are you spending on it during practice.

➤ Learning styles. Find a way to get the athlete to grasp the changes.

- Visual: They see pictures or video and they can see the changes.
 - ❖ A dance
- Auditory: You can explain how to do something and they adjust.
- Kinesthetic: Just by doing it themselves, rather than listening or watching
- Logical: They prefer to use logic reasoning (the damn smart kids)
 - ❖ Use science, different implements or objects
- Social – can learn better when in a group.
- Solitary – One on One attention.
- Verbal - learning by both reading materials and spoken words

➤ Video analysis/Film study

- Critique technique through video programs such as coach's eye, coach cam, Dartfish, instant replay, etc.
- Take notes and asks questions. What causes this or that to happen? What is the athlete seeing? What is the athlete feeling?

Making appropriate refinements to technique when they need to be made

◆ When

➤ **The fall:**

- The fall is the best time to make any technical changes to any of the throwing events. This is the time to really breakdown the throw and find any flaws or mistakes that the thrower has.

➤ **Injuries:**

- Sometimes injuries happen unexpectedly so you have no choice but to change a certain aspect of the throw.

➤ **Redshirt Year:**

- Redshirt years gives you a little more time to experiment and change things. Changing a glider to a spinner, short vs. long glider, 3 turner to 4 turner or incorporating the toe turn in the hammer, Using Wilkins, Powell, or Schmidt discus technique or maneuvering the power vs. a speed javelin thrower.

➤ **Track meets:**

- Making obvious small effective changes vs. major effective change.
 - Don't blindside your athlete during the middle of a competition. You want the athlete to have a aha moment not a WTF moment.

The refinements have to be obtainable.

◆ How

- **Set Goals – Be SMART**
 - **Specific** - Your goal must be clear and well defined. Vague or generalized goals are unhelpful because they don't provide sufficient direction.
 - **Measurable** - Include precise marks and dates to the goals so the athlete can measure their degree of success. If you just say I want to throw far, then how will the athlete know if you have succeeded.
 - **Attainable** - Make sure that it's possible to achieve the goals you set. If you set goals that the athlete have no chance of achieving, you will only dishearten and destroy their confidence.
 - **Relevant** – Make relevant refinements to the throw so that the athlete can stay focused on trying to do the refinements rather than wonder if you are full of it.
 - **Time Bound** – The goals being set must have a deadline. You know when the athletes have to be successful so don't waste your time trying to get the athletes to do something that you know they cant do.

- **Repetition.** How often are the athletes practicing? Are they just going through the motions or are they really understanding what they are doing?

- **Make the refinements work for the athlete** - Whatever refinements you are making, let them capitalize on their strengths and hide their weaknesses

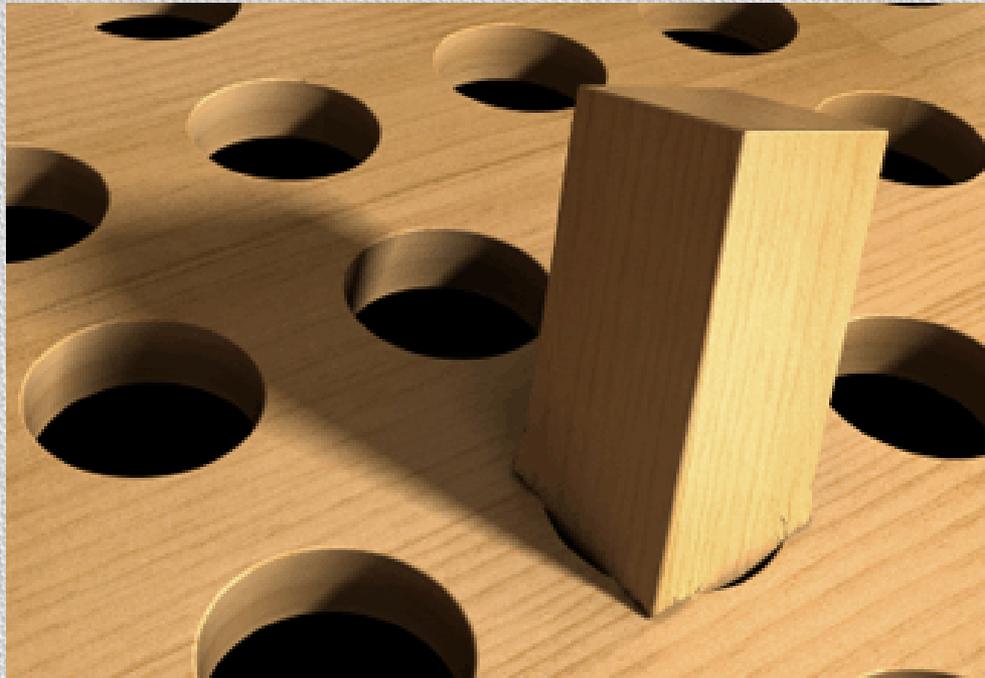
- **Refine according to your time frame with the athlete** - How much time do you have with the athlete? 1,2,3,4 or 5 years?

The refinements must be obtainable.

◆ When

➤ At all times

- The Athlete has to be able to adjust to the refinements made or about to be made.
 - ❖ Never put your athlete in a position for failure.
 - ❖ You want your athlete to believe and trust in your system.



Making relevant refinements based on the athletic ability of the athlete so that the athlete can have a break through.

◆ Considerations when making refinements

- **Intrinsic motivations** - What is motivating the athletes to get better? Is it the pleasure they get from the task itself or is it from the sense of satisfaction in completing or even working on a task? It could be they are just doing it to get per-diem. Money does motivate people to do things.

- **The variables that you have to work with:**
 - Genetics/Physique - What limitations do your throwers have? Body type and physical abilities
 - Balance – Do they have it or do they use inefficient flailing tactics? Using unnecessary movements to accomplish the refinements, which is a direct result of being off balance.
 - Speed – Is the athlete fast?
 - Coordination - Can your athletes walk and chew gum at the same time?

- **Mentality** – Has the athlete checked out? What is the intelligence level and work ethic of the athletes? Can the athlete handle criticism ?

- **Ability vs. Potential** – Does the athlete have the ability to perform the changes or are you making changes based on how well the athlete could perform with the changes being made?

Making relevant refinements based on the athletic ability of the athlete so that the athlete can have a breakthrough.

◆ **How to make the changes relevant.**

➤ **The controlled vs. the uncontrolled?**

- Weight control
- Coaching
- Strength & Power (weight room)
- **Genetics**
- **Previous Coaching**
- **Work ethic**

➤ **Training sessions that make the athlete tougher**

- Technical drills that take the athlete out of their comfort zone but works on what it is you are trying to change.
- Use heavier & lighter implements
- Repetition

➤ **Trigger & Queues**

- Words
- Movements

➤ **Incorporate the way the athlete learns into the changes**

Making relevant refinements based on the athletic ability of the athlete so that the athlete can have a break through.

◆ When

- **Off Season** – During your process of trying to see what exactly your athlete is capable of doing, this is the time to make the refinements work for the athlete. Make & mold the refinements to fit the athlete.
- **In season**– Small refinements are necessary at track meets if the athletes are making little mistakes like not finishing the throw, not turning the foot in the middle, or foot fouling because they get caught watching the throw. Also, refinements due to injuries.
- **When the athlete asks for extra help** – Your athletes know when they need help, so if you need to have longer practices or extra sessions to help your athlete have that break through then that is a relevant refinement in itself.
- **When athletes start getting complacent** – This is not going to be a aha moment but instead a JESUS TAKE THE WHEEL MOMENT.

Refining when athletes get Complacent with their technique.

◆ How

- **Instill a little doubt and/or will** - sometimes you have to let your athlete know that they are not as good as they think they are or let them know that they are better than they think they are.
- **Communication** – When your athlete gets complacent or in a slump, just talk to them. They feel more confident in their throwing when you assure them that they will snap out of it. You have to assure them that it is not their lack of talent or skill that's causing the complacency or slump but rather it's the refinements that they are doing that's having a effect on the throw and that once they get the refinements things will get better.
- **Establish impact** - The refinements that you are making must show signs of good faith of an impact on the throw or the athlete will not trust it.
- **Become Creative** – Never believe in the concept of enough. Never give up. You have to find ways to implement the refinements with ways to get the athlete to be able to do the refinements.
- **Inspire Action**- create a compelling vision that explains why change is necessary in a way that causes the athlete to have a sense of urgency.

Refining when athletes get Complacent with their technique

◆ When

- When the athletes do not feel like they are being challenged
- When the athletes can't master what they are already doing, its time to refine the throw to their athletic ability.
- When the athletes are content with the past success of their throwing.
- When the athletes are no longer teachable. They don't listen. They begin to reject any and everything that you are teaching . They no longer focused. They are just going through the motions.
- The obvious. The athletes tell you they don't want to throw anymore. Then its really time to refine something.

Make sure that how you refine the technique does not affect the thrower but has a direct effect on the throw itself.

◆ How

- **Train in all conditions** – All competition will not be ideal. So preparing your athletes by practicing in all types of weather conditions, practice in noisy areas, with music, etc.
- **Don't omit detail** – When you are trying to refine the throw make sure you explain every detail of the refinement. By leaving out detail, the athlete may miss a key component of the refinement and never really get full potential out of it. Make sure that you give a detailed, accurate description of the refinements.
- **Drills and weight room training that duplicate the movement** – This is important because your athletes need to feel the movement that they are doing. Usually when athletes feel the movement, they get a better understanding of what it is they are trying to do.
- **Don't get the athlete hurt with the refinements being made** - As much as we want to believe that all athletes can handle everything that you want to refine in their throw, they can't. Sometimes you just have to work with what you got and figure out how to make that better.

Make sure that how you refine the technique does not affect the thrower but has a direct effect on the throw itself.

◆ The ultimate Goal

➤ Throw Far -

- Peaking at the right time

➤ Postseason -

- First Round
- Nationals

➤ Major Competition –

- Worlds
- Olympics

- **To Achieve this make sure that other variables aren't changing the way they are performing** – What other outside factors are interfering with performance that you are having to make these refinements. Classes, personal problems, sleep, stress, anxiety etc. These factors don't mean you need to make changes to their technique. It just means that you need to adjust the practice and or practice times.

Questions?