

Ready for Track???



Questions about the Pole Vault

The Takeoff:
Punch or Press

Punch or Press – What to do with the lower arm at plant and takeoff

Want a copy of this??

Available online (pics and notes):

ohiopolevault.wordpress.com

(also other presentations - great videos - and information about vault)

or for us “old schoolers” Take notes if you’d like!!!!

Please silence your phone - it’s too early for calls!!

- Developed by:
- Marty Dahlman, Retired Track Coach
- BA Denison University, MEd Ashland University (Sports Science)
- Track Coach – Watkins Memorial High School – 1978 to 2017
- Ohio Capital Conference, Watkins Memorial High School - Halls of Fame
- OAT-CCC Fred Dafler Career Track Coach Award – 2001
- OHSAA Sportsmanship and Ethics Award - 1998
- Ohio Pole Vault Safety OAT-CCC – 1993 to present (28 YEARS!!!)
- Men's Pole Vault Coach - Team Ohio, Midwest Meet of Champions (2009 - 11)
- ASTM Pole Vault Sub-Committee member - current
- Pole Vault Education Initiative – National Safety Contributor – current
- Ohio Track Official – 1978-2001, 2019 -

• Best Vaulters (from Watkins)

- SP – STATE PLACER, SQ – STATE QUALIFIER IQ – STATE INDOOR QUALIFIER

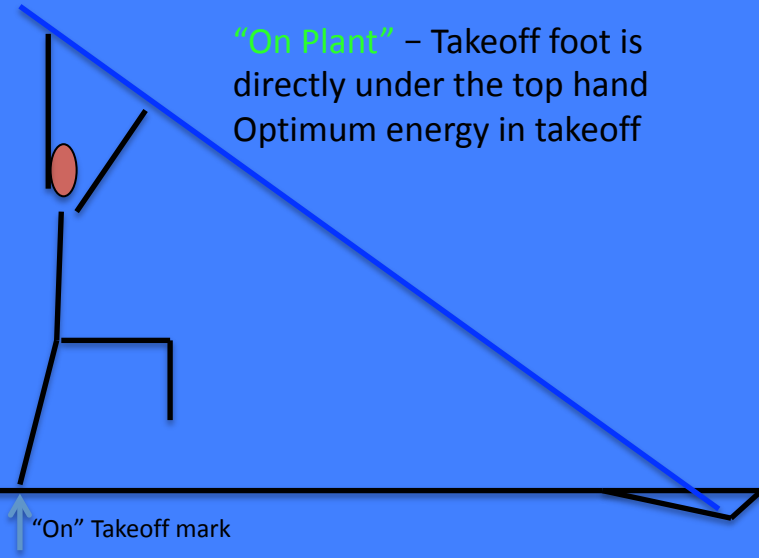
- | | |
|----------------------------|-------------------------|
| • Kyle Burns SP 15-4 | Pat Walton SP 14-6 |
| • David Hill SP 15-3 | Scott Haden SP 14-6 |
| • Mike Huston SP 15-0 | Chris Koon SP 14-4 |
| | Troy Rhoades 14-3 |
| • Sammi Miller SQ 11-8 | Doug Payne 14-0 |
| • Rebeccas Ollish IQ 10-6 | Chris Dennis 14-0 |
| • Michelle Robbins SQ 10-6 | Dusty Rhoades SQ 14-0 |
| • Rachel Arnott IQ 10-6 | Wayne Ratliff 14-0 |
| • Taylor Amrine SQ 10-6 | Austin Jackson SQ 14-0 |
| • Theresa LaGreca 10-4 | Cameron Johnson 14-0 |
| • | Mitchell Novotni 14-0 |
| | Jarod Worcester IQ 14-0 |
| | Austin Ballenger 14-0 |

Friends We Helped from other schools
 Jesse Oxley – BU - DIII State Champion
 Boone Troyer – LV – DII Runnerup
 Blake Mormon – LU – DII State Placer
 Jimmy Kovatch – FU – DII State Placer
 Austin Durbin – LV - State Qualifier

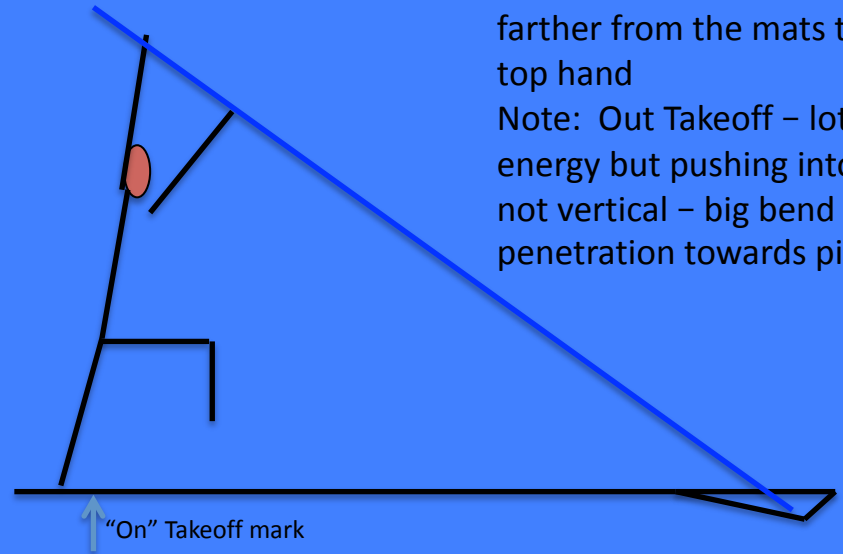
Terminology – just so we are all speaking the same language

- top hand – hand highest on the pole
- bottom hand – hand lowest on the pole
- takeoff foot/leg – foot/leg that jumps off of the ground on takeoff
- drive leg – leg that drives the knee up on takeoff
- on plant – plant directly overhead with takeoff foot directly under top hand
- Drag – to allow the arms and takeoff leg to press back, creating swing energy for invert
- under plant – plant over head with takeoff foot closer to box than top hand
- out plant – plant over head with takeoff foot farther from box than top hand
- free takeoff – perfect plant – vaulter leaves ground as pole strikes the back of the box
- Pivot Point – point of contact with the pole that serves as the center of body movement on pole
- pre-jump – to takeoff prior to the pole striking the back of the box
- press – to push both lower and upper hands vertically up into the pole
- push – to press the lower hand horizontally into the pole
- punch – use lower hand to increase pole bend by punching horizontally on plant then dragging back overhead
- pole rotation – pole rotating around tip towards pit
- pole bend – pole bending and storing energy

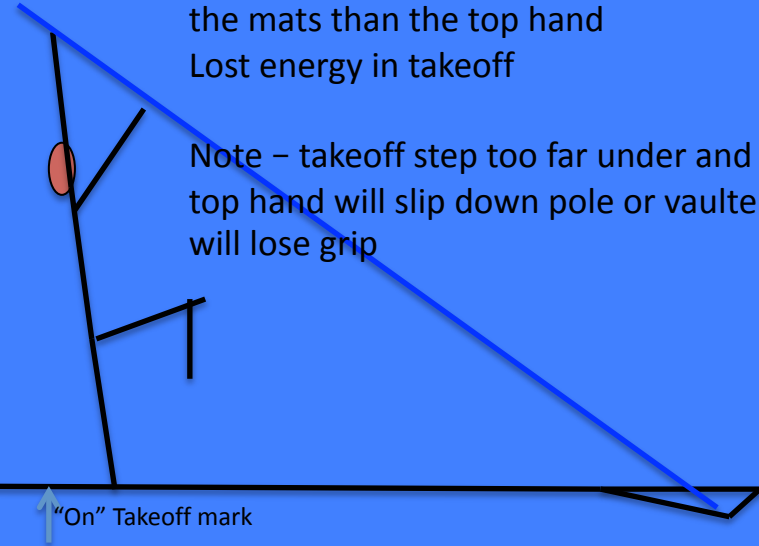
"On Plant" – Takeoff foot is directly under the top hand
Optimum energy in takeoff



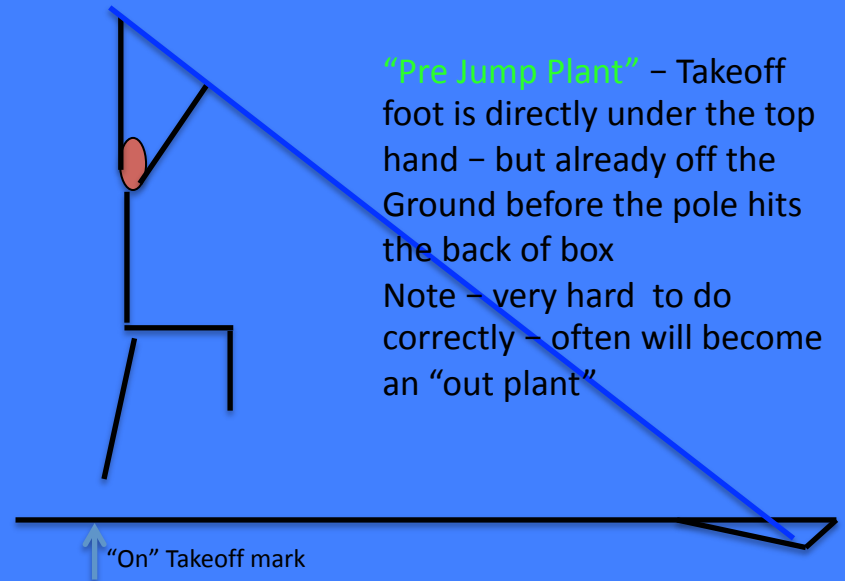
"Out Plant" – Takeoff foot is farther from the mats than top hand
Note: Out Takeoff – lots of energy but pushing into pole not vertical – big bend but less penetration towards pit



"Under Plant" – Takeoff foot is closer to the mats than the top hand
Lost energy in takeoff



"Pre Jump Plant" – Takeoff foot is directly under the top hand – but already off the Ground before the pole hits the back of box
Note – very hard to do correctly – often will become an "out plant"



Before the Fiberglass Pole

- No Punch – No Press
- Plant – slide hands up to a common “pivot point” at top handhold
- collapse and swing from top hand
- Goal – to get the straight pole to vertical and swing hips above the top of the pole
- Goal – LAND ON YOUR FEET IN THE SAWDUST

Cornelius Warmerdam

Check out “pivot point” from top hand

CORNELIUS WARMERDAM

**CHAMPIONS ON FILM
ANN ARBOR MICHIGAN**

The beginnings of Fiberglass Vaulting

- Curl and Press Plant
- natural movement – novice vaulters got it
 - easy to get “caught” – either off line or short
 - easy to end up in a round house plant – creating step issues
 - emphasis on pole bend, “driving the pole”
 - broke a lot of Catapoles in those days
 - –wide grip especially on carry – maybe left over from the heavy steel pole days

Vaulting in the 60's



Vaulting in the 60's

The question was what to do with the bend

The first vaulter – wide grip, stiff lower arm

Big bend – but unable to swing to vertical

The second vaulter – old school technique

Slid bottom hand to top

Less bend – but – better inversion on top

Vaulting in the 60's



The 1980's

- The “Upper Cut” Plant taught by Bill Falk
- Plant starts with top hand moving in front of hip
- Then the top hand goes in front of forehead and up in an “upper cut” movement
- I taught this using the Rock'em-Sock'em Robots

Rock'em Sock'em Robots



But this vaulter did it better
Billy Olson



Drop Tip Method

- While I don't have a slide for it – this method made an appearance in the early 1990's – again a product of Bill Falk
- High Pole Carry until the last second – then drop the tip into the box and execute the plant in front of the hips and shoulders
- Scariest thing I've coached – pole would actually deflect down on plant – then back up
- I called it the SLAM PLANT

The Petrov Method

The Petrov Method –

the USATF Pole Vault Committee, Mark Hannay

Emphasis on a Free Takeoff takeoff foot placement

Vertical back hand movement from hip to overhead

Free drop pole to box – lower arm neither pulls down
nor pushes out

Maximize plant height and vertical takeoff

Lower arm presses up into pole bend – not pushing out

After takeoff top arm and takeoff leg “drag” back

to increase muscle elastic response for swing up

Yelana Isinbayeva



Model Vault

And the Master - Bubka



What we are trying to do

- go higher safely
 - ways to go higher
 - hold higher – use a longer pole
 - get in correct position to have pole lift higher – use the pole bend
 - Get inverted and vertical while the pole is still bent
-

Coaching Methods

“Styles” of coaching

Some Coach's are “my way or the highway”

Athletes must do everything – in process and sequence

One Famous Pole Vault Coach – “no crossbar or bungee for the first year!!!” (*Alan Landers – Australian National Coach*)

My coaching style is more “molding” the athlete

Emphasizing successes – fixing one flaw at a time

Jimmy's Story

- I helped start a young vaulter named Jimmy about six years ago. He was a skinny, short kid who learned to vault and bend a pole early.
- Jimmy dropped his lead knee on takeoff, and swung his hips at the bar. This created a lot of energy in the pole bend – and he definitely was the youngest kid who ever broke a pole at my camp.



Modeling

- In my coaching contacts with Jimmy over the years – I worked to “mold” him to the Petrov Model. But Jimmy found his own method, one that worked for his body type and skills.
- So when Jimmy goes 16’, still dropping the lead knee and swinging his hips – do you walk away from him, or try to improve his vaults on his terms? - That’s a coaching choice, for you as a coach, and for him as an athlete.

Every Vaulters is an Athlete

- Vaulters are athletes – with unique physical and mental characteristics.
- Each of those athletes have a “self-talk” that gets them to perform
- It’s important to recognize that what they “say” to themselves may not be what they “do” in the vault – but it works for them
- Coach what you see – not what they say

The Football Analogy

- It's all about Tim Tebow
- In college, he was coached to his own strengths – he was an athlete, a runner, who could pass
- He was not a “Pro-Style” quarterback
- His college coaches played to his skill set
- In the pros – they tried to force him into a PRO QUARTERBACK mold – it didn't work
- Tebow's style works – in Baltimore with Lamar Jackson
- WHAT KIND OF COACH ARE YOU?

SAFETY – SAFETY - SAFETY

- WHATEVER your technical thoughts on Pole Vaulting – you need to make vaulters safe.
- If what they are doing is unsafe – you need to correct it – and make that safe
- That's not a choice – it's an imperative

What to do with the Lower Arm

- Choices
 - - BLOCK – Block lower arm into the pole
 - - COLLAPSE – Allow lower arm to fold into the pole
 - PUNCH – Push into the pole in a horizontal motion
 - PRESS – Press up into the pole

Block the Lower Arm

- Gets Maximum Pole Bend
- Keeps body position down through drive phase
- Creates the “pivot” point at the lower hand
- Does not allow body to swing up
- Vaulter “flags off” – no vertical inversion

Blocked Bottom Arm – Stops Swing



Watch the “Pivot Point” become his lower arm shoulder – swings to there and stops

Crush the lower arm

It doesn't sound like a "functional" technique

But in the mid-1980's – crushed lower arms
were setting world records

Didn't put as much energy in the pole

Watching it looks like an under plant

But it did create a "high pivot point" so a vaulter
would definitely swing from the top hand!!

Crushed Lower Arm



“Punch” the Lower Arm

- Block the lower arm on takeoff
- Increases pole bend – holds body position
- Then “RIP” the lower arm – pulling it to the side to allow for vertical swing-up

Punch on Takeoff – Then “Rip” to side




Did Tim Mack Punch?



Watch what his lower arm does – pushes into pole

Does Lavillenie?

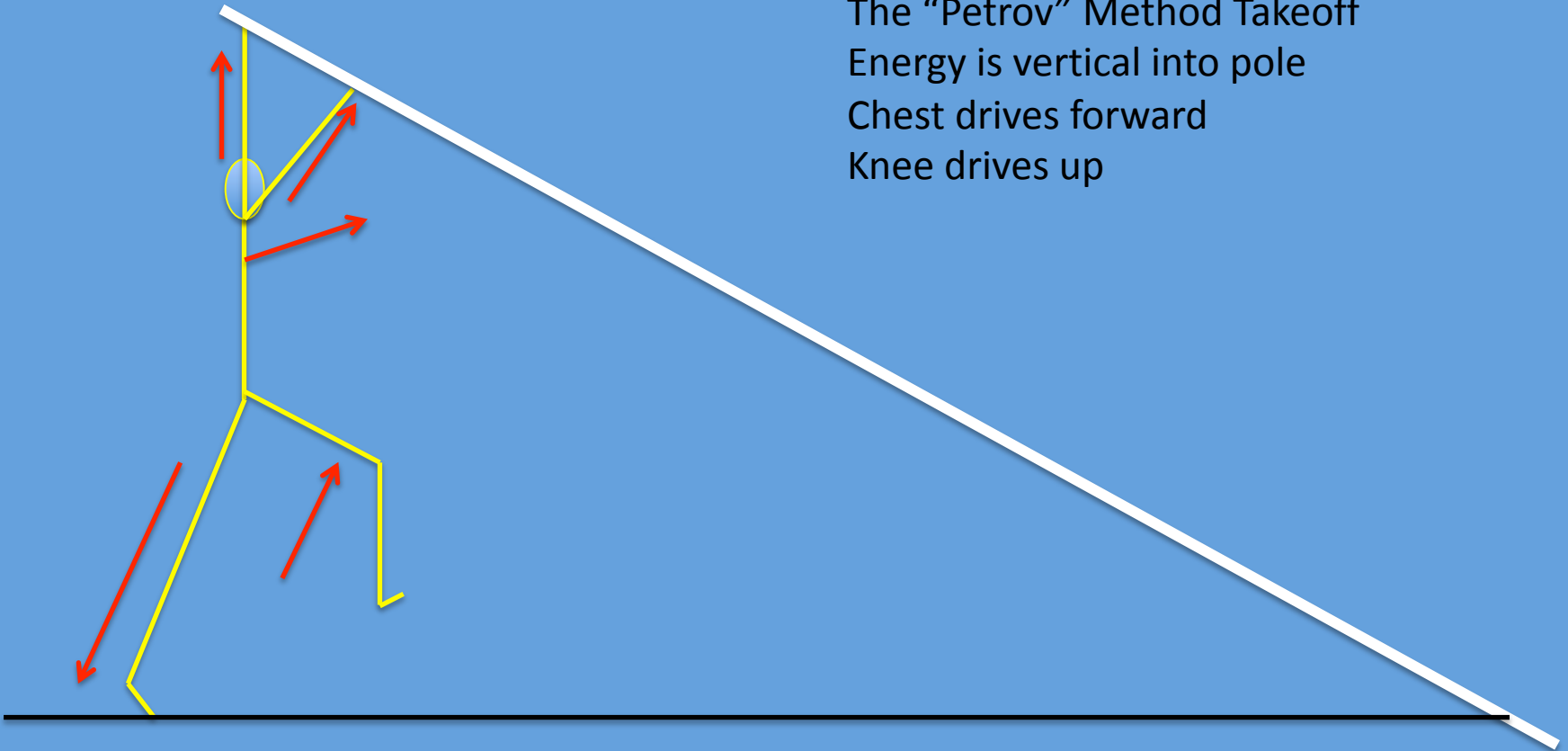


6.01 first time over 6 meters

Lower arm pushes into pole – maintains body position and stores energy

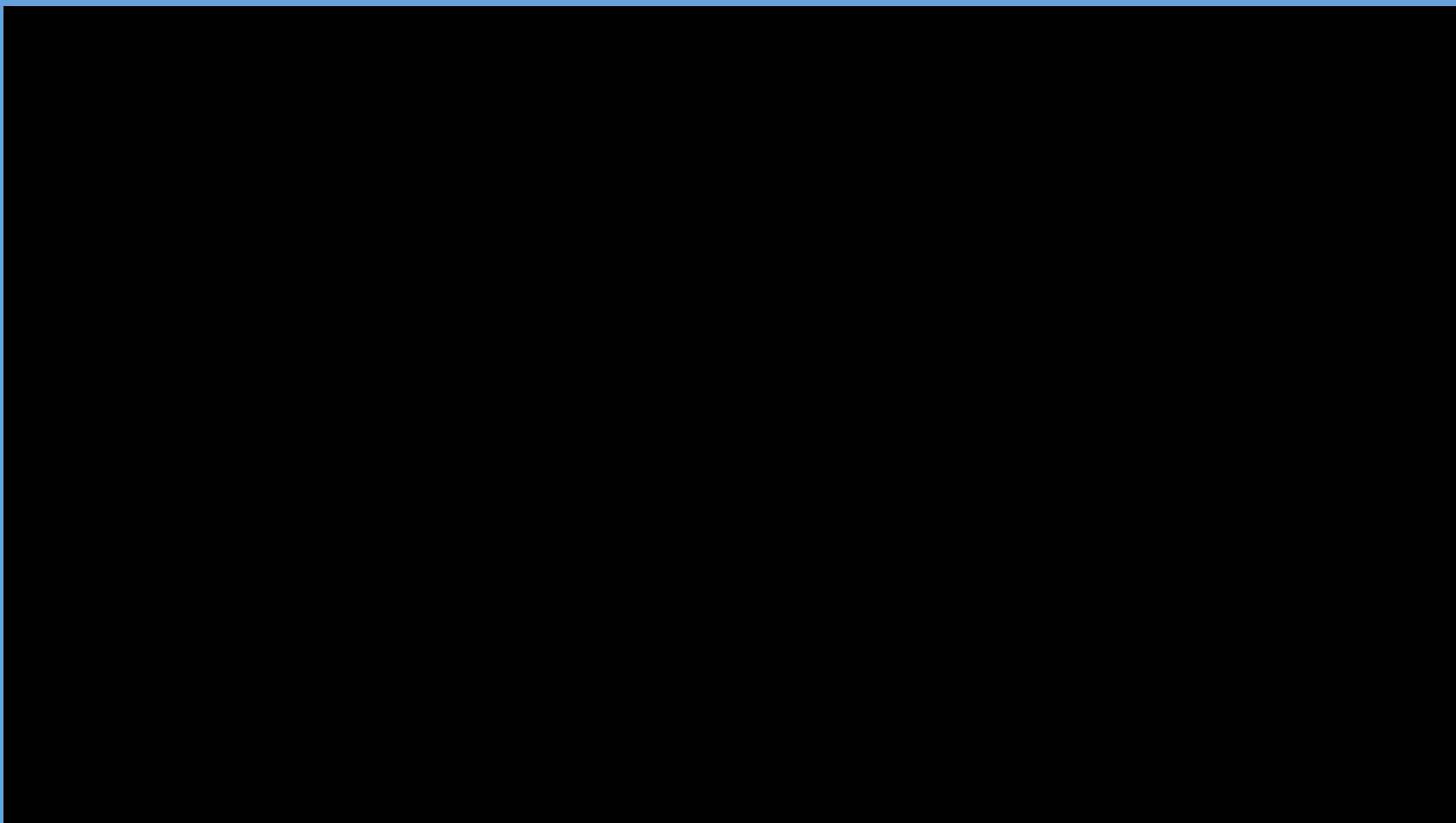
Physics

The “Petrov” Method Takeoff
Energy is vertical into pole
Chest drives forward
Knee drives up



Red Arrows = energy direction

Isinbayeva Plant Detail



Lower arm – slightly bent – presses up into pole then drags back towards head

How About Sam?



Slightly bent lower arm – pressing UP into pole and dragging back towards head

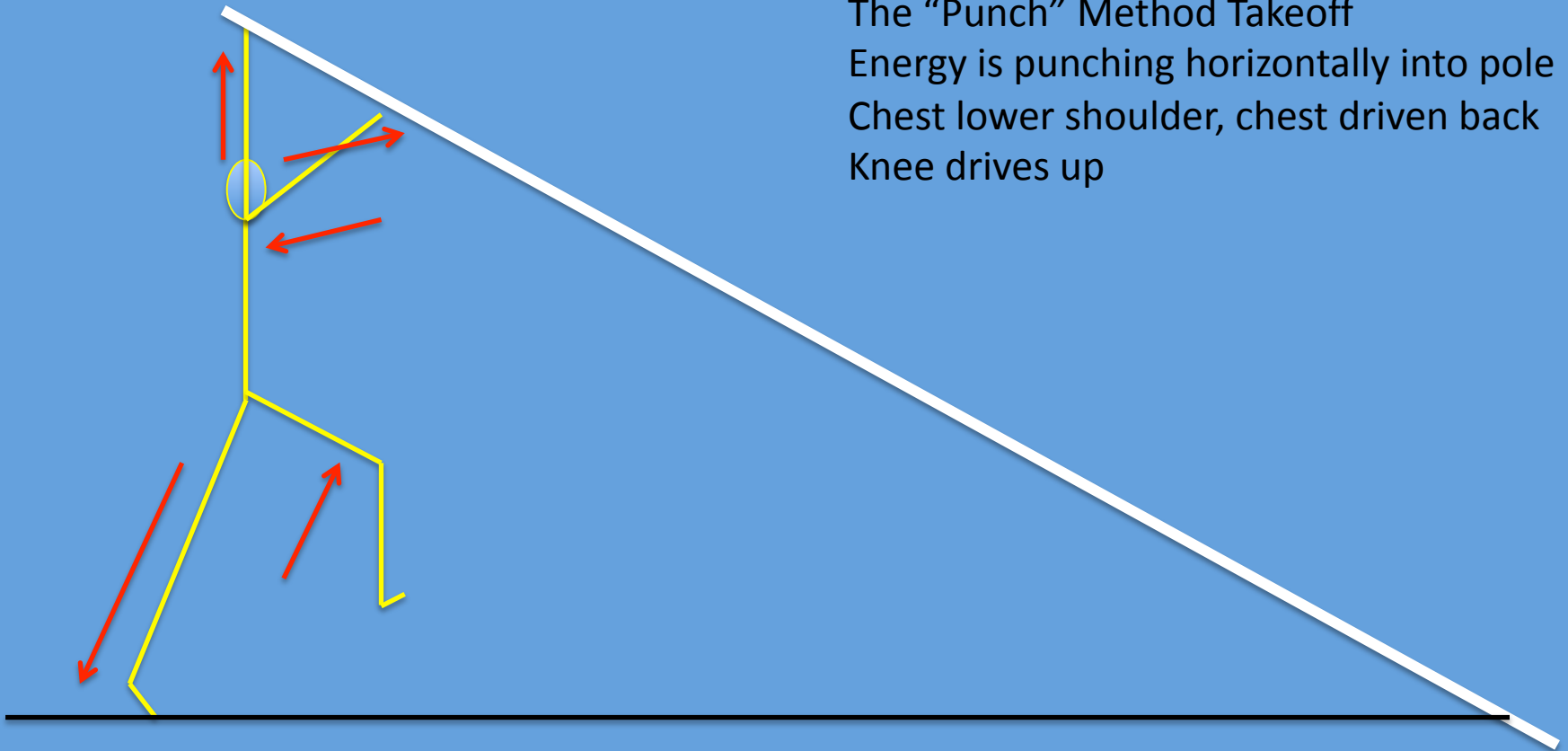
Bubka?



Intentionally rotated lower arm elbow outside to increase drag towards head

Physics

The “Punch” Method Takeoff
Energy is punching horizontally into pole
Chest lower shoulder, chest driven back
Knee drives up



Red Arrows = energy direction

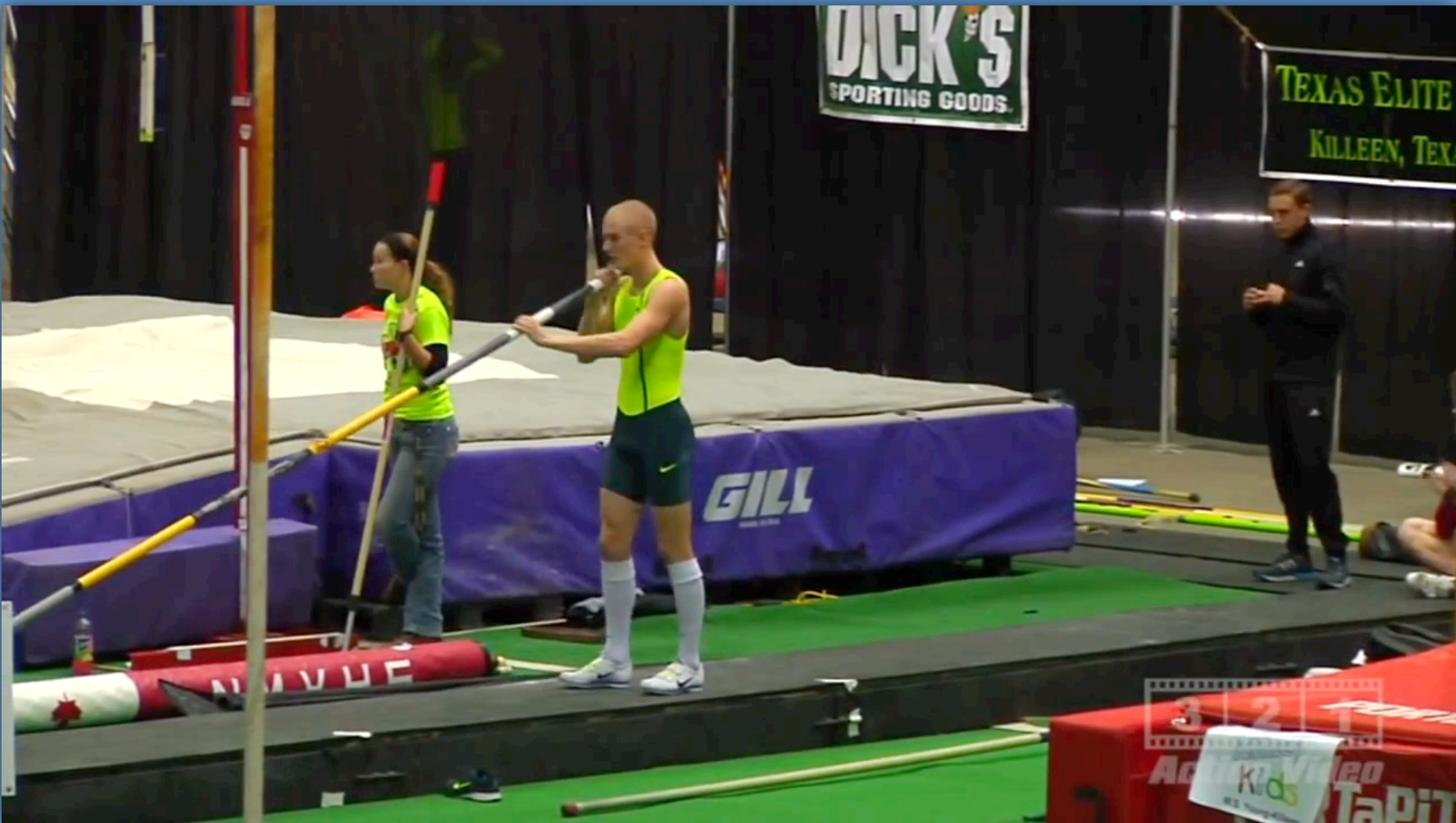
Lavillinie – Definitely Punches



What about Tim?



Sam Kendricks



Model Vault