



# DEVELOPING COMBINED EVENT ATHLETES IN THE COLLEGIATE SYSTEM

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# Collegiate System Challenges

Traditional development of Combined Event Athletes as prescribed by text is not entirely practical in the collegiate system if you follow the NCAA's time management rules.

- 8 Hour Weeks; 2 Hour practices; 2 Days Off
- 20 Hour Weeks; 4 Hour practices; 1 Day Off
- Safety Exemption for Voluntary Field Event Work
  
- This presentation will be given by a coach that follows the rules as prescribed by the NCAA.

# Safety Exemption & Voluntary Training

- The safety exemption is the most abused rule in collegiate track & field and is used to override the spirit of the time constraints.
- “Voluntary” – 17.02.19 – “it is permissible for a (coach) to provide information to student-athletes related to available opportunities for participating in voluntary activities”
  - “For students who have initiated a request to engage in voluntary activities, the institution or a (coach) may assign specific times for student-athletes to use facilities....and inform them of the time in advance.”
  - Safety Exemption – A coach may be present during voluntary individual workouts....when the athlete is engaged in field events...The coach may provide safety or skill instruction but may not conduct the workout.”

# How I adhere to these restraints

- I inform student-athletes via email each week when the facility is available for training, and that I can be present for field event training if they ask.
- That's all.
- This presentation will help demonstrate how to coach combined athletes specifically within the constraints of the collegiate system.

# “There are no points in the Throws”

- If you are good at them, there are lots of points in the throws.
- 10.72; 7.34; 2.01; 49.33; 14.78; 4.61; 4:55.71
- 16.31; 53.31; 67.24
- Lindon Victor – TAMU – 8390 2017 NCAA Champ
- Understanding events from the perspective of consistency vs. volatility, can shed light on where our time should be spent.
  
- What is the average performance of your competition?
- Top 8 in your conference; Top 8 at Nationals; Bottom 10 qualifiers for NCAA.
- Where is the athlete deficient?
- Where is the athlete superior?
- Where is the athlete volatile?

# Maximizing your time

- Regression analysis
  - In statistical modeling, **regression analysis** is a set of statistical processes for estimating the relationships among variables.
  - This is important in learning to maximize the time you spend on events.

2012 Top 10*	Zach PB	2015 DRAKE	2015 USA	2015 WORLDS	Mean 2015 Performance	PB Volatility*	Event Volatility \$	2016 Georgia	2016 NCAA	2016 Oly Trials	2016 Olympics	Mean 2016 Performance	2016 Event Volatility*	2016 Event Volatility \$
10.78	10.57	10.68	10.57	10.81	10.68666667	0	82	10.74	10.63	10.60	10.71	10.67	17	33
7.45	7.72	7.31	7.71	7.57	7.53	5	134	7.47	7.72 (2.5)	7.72	7.49	7.60	30	63
14.66	14.77	13.28	14.77	13.38	13.81	0	178	13.00	14.05	14.11	13.44	13.65	28	68
2.01	2.10	1.99	2.06	2.04	2.03	37	83	1.97	2.01	2.09	2.10	2.0425	47	120
48.3	49.04	52.13	51.31	49.89	51.11	65	164	50.17	49.04	49.3	49.83	49.585	13	52
14.16	14.71	14.88	14.78	15.29	14.98333333	0	73	14.71	14.85	14.94	14.77	14.8175	-25	28
45.85	49.42	48.32	37.27	44.19	43.26	226	311	46.86	46.91	48.17	49.42	47.84	6	53
4.93	5.45	5.3	5.45	5.2	5.316666667	0	126	5.15	5.00	5.25	5.20	5.15	31	78
65.25	60.92	56	55.43	56.5	55.97666667	24	23	57.44	58.32	57.24	60.92	58.48	-18	53
04:27.0	04:42.3	04:59.1	04:58.9	04:56.7	04:57.0	12	27	04:52.2	04:42.5	04:48.2	04:42.3	4:46	-12	59
8,517	8,693	7,964	8,107	8,006	8,026			8,047	8,300	8,413	8,392	8,288	125	

\*Point difference between all time best final score performance, and mean performance for season.

\$ Total point swing between all five starts per event. Determines how inconsistent each event can be.

# Combination between PB Volatility and Event Volatility.

& 400m was volatile but improved linear over three starts.

# Regression Analysis - Continued

Volatility Ranking 2016		Point Differential Top 10		Volatility Ranking #		Point Differential Top 10
Discus	50	Plus 74		Discus	537	Plus 51
400 meters &	93	Minus 36		400 meters &	229	Minus 75
Shot Put	96	Plus 7		Shot Put	178	Plus 7
Long Jump	167	Plus 70		Long Jump	139	Plus 70
Pole Vault	65	Plus 162		Pole Vault	126	Plus 162
High Jump	3	Plus 83		High Jump	120	Plus 83
100 Meters	59	Plus 49		100 Meters	82	Plus 49
100 Hurdles	109	Minus 69		100 Hurdles	73	Minus 78
Javelin	35	Minus 65		Javelin	47	Minus 161
1500 meters	47	Minus 98		1500 meters	39	Minus 185
		Plus 177				Minus 77

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# Why is Statistical Analysis Important?

- It takes your emotion out of the equation
  - “Everyone should be able to run AT LEAST 4:40” - Anonymous Moron
  - “Great Job, just gotta get that 1500 down.” - Anonymous Moron

Your former ability as an athlete, and the beliefs you have as a coach, have nothing to do with your athlete's ability or training age.

- Many times consistency in an event is taken for granted by the coach because it is below a “standard” expectation.
- Volatility is the most detrimental factor in coaching the combined events.
- Eliminate Volatility first and you will find long term success.



# 2016 Olympic Trials – Decathlon Zach Ziemek



100 – 10.60  
LJ – 7.72m  
SP – 14.11m  
HJ – 2.09m  
400 – 49.30  
110HH – 14.94  
DISC – 48.17m  
PV – 5.25m  
JAV – 57.24m  
1500 – 4:48.20  
SCORE: 8,413

Zero Personal  
Bests in events.

Overall Personal  
Best Score.

# Understand Training Demands

- Goal: To have as many uninterrupted training cycles as possible. Minimize risk (IE – injury or serious fatigue) which in turn will minimize missed training.
- Even though there is training you can do that will “work”, it will limit your athlete’s ability to do ANYTHING productive the next day. THUS, you will lose training days over time.
- Early in development, speed endurance I & II should be carefully administered. (80m @ 90-95% w/ 1-3 min rest; 0-150 @ 90-95% w/ 5-6 min rest) Ask yourself if you are losing subsequent productive days because of the recovery necessary?
- Redshirt Year? 99% of my decathletes redshirt their freshman year. A minimal amount of that year is spent doing running training on the track other than acceleration work.
  - Capacity for training is important and is done in the pool with a combination of running in place OR with actual swimming workouts.
  - Vault, Throw, Hurdle – minimum of 3 times a week for all.
  - If they can’t do the full event, they do drills and variations.

# Training Concept for Technical Events

- You can't coach an event without a minimum amount of physical mechanics proficiency & coordination by the athlete.
- Teach a fundamental skill and let it alone so that it can become ingrained.
- Use implements and drills that are appropriate for their physical development:
- Freshman
  - Never throw a 16lb shot; 14lb max for men; 3k for women – Heavy ball combined with lack of strength makes for bad habits.
  - 41" Hurdles (M) & 32" Hurdles (W) – or lower (use tape to achieve these)
  - 1.65 & 1.75 Disc (M)
  - Straight Pole Vaulting

# Focus on Correct Running Mechanics

- When the athlete can run correctly the payoff across all speed/jumping events pays off.
- Physiology dictates running technique.
  - Foot Tension equates to elasticity, technique is dictated by the physiology of the lower leg (penniform musculature).
  - Front side mechanics (inverse extension reflex)
  - Flight time = Center of Mass oscillation which is necessary to convert horizontal velocity vertically in the jumping events.
  - Force + Minimal Contact Time results in increased Stride length & Flight Time = Speed

# Strength Training Parameters

- Developed in these phases
  1. Evaluate strength deficits (posterior chain; counter movements etc.)
  2. Muscular and Neural Adaptation & Recruitment through repetition.
  3. Coordinating Power through multi joint movements.
  4. Specific strength training to elicit the proper elastic response.
  5. Complicate movements to coordinate elastic response (motion control theory).



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# Evolution of Training

- Phase 1: Early in Career it is Drills, Drills, Drills.
  - Attempting to create basic motor patterns and proficiency in the technical events
- Phase 2: Middle of Career it is Experience, Drills, Capacity to Compete.
  - Competition experience helps “connect the dots” between the drill work and the role it plays in the execution of the event.
  - Capacity to Compete is the accumulation of training which results in the ability of the athlete to maintain a high level of proficiency of execution throughout the duration of the combined event competition.
- Phase 3: End of Career it is quality running, quality event work & quality competition.
  - “Quality running” is an implementation of training that is specific to the challenges the athlete is facing in each event.
  - “Quality event work” focuses on execution of the event in the most specific way possible.
  - “Quality competition” means competitions are chosen based on giving the athlete the best possible environment to succeed.
- “Career” isn’t constrained to the year that they are in school. Some kids take two years to get through Phase 1 or 2, some kids never get a full Phase 3 experience (training groups help here a lot)

# Coaching it all

- If given the opportunity to coach all of the events, do it.
  - Most open event coaches don't understand the challenges of competing in a combined event competition.
    - Training Challenges for Open Event Coach: Stabilizing a movement is more important than the risks that may be involved with the all or nothing technical point they may add.
    - Competitions for Combined event athletes are often misunderstood by the open event coach.
    - Volume of training is a major concern.
    - A simple understanding of an event sometimes is better than an expert understanding.
  - Use experts as resources, don't resist the opportunity to ask for help from your experts!

# Final Thoughts on Training

- I never practice on weekends.
  - Accumulation of training is more important.
  - Time to be a college student, studying and getting away from the track helps maintain mental focus.
  - Family time for me is my #1 goal.
- Strength training is done no more than 2 times per week.
- Throwing in the fall can account for up to 70-100 throws per week in the shot and disc. (One session in the javelin is standard, very little throwing with the javelin; ball throws and drills comprise javelin training – risk vs. reward)
- All decathletes can vault 12' from 6 steps in the pole vault without bending the pole.
- Running work is rarely done more than 3 sessions per 7 day period.

# Thank You! [nkd@uwbadgers.com](mailto:nkd@uwbadgers.com)

