Planning and Training for Sprinters, Jumpers, Hurdlers*

*For non-decathletes
Steve Nelson, San Jose City College, San Jose, CA (2017 - present), Mt. Pleasant High School, San Jose, CA (1987 - 2016)

Philosophy

- Power
- Strength
- Speed Development

Mentors

- Tony Wells, Colorado Flyers
- Vince Anderson, Texas A&M

Best Quotes

- Anyone can coach anyone for a year!
- Don't judge your athletes' success by how well your top kids are doing; they're more naturally talented. Are *all* your athletes improving or developing?
- Know the rules before you break the rules.
- Know your athletes' indicators, then use those indicators as guides for their season / career goals.

How to Plan and Implement Training for the High School Sprinter / Hurdler / Jumper

- (1) Identify the Athletes
- (2) Incorporate Training Based on Your Environment
- (3) Competing the Athletes
- (4) Key Points and Conclusions

1. Identify the Athletes

Athletes who are more athletic, with greater kinesthetic awareness are better multiple event athletes.

- Testing and identifying athletes is an ongoing process.
- P.E. Class Track Unit. 30 fly / slj / s5 bound / 60 sec test / Hurdles (smaller) Mile run / High Jump / Pole Vault / Shot Put / medicine ball toss / pull-ups / sit-ups, etc… California has fitness gram testing; incorporate this unit into fall pre-testing. **Track/fitness unit**
- Don't give kids choices. They need to do 4 events in duel meets. This way you can have the kids try new things that may turn out to be their best events. Either you sprint / hurdle / jump, or you sprint / hurdle / run 4x4

Possible Combos of Events

- Hurdle / Jumps combo complement each other
- Sprint only / long jump complement each other
- Sprint / hurdle / relays. Don't need to be trained, just do it.
- Tough combos are 400 / 800 / jumps. Although body types and strengths are similar

Speed / Jump Tests

- 30 fly test
- Standing long jump test
- 3 / 5 / 10 bound test

2. Incorporating Training Based on Your Environment

Considerations:

- **Questions:**
  - What are your time / facility components?
  - Weather / soccer will determine how and when you train.
  - Do you have an alternate place to train? Hallways / gym / wrestling room / weight room, other venue?? You must not only plan per macro and micro cycle, but also watch the weather report and flip things around based on these variables.
  - Coaching considerations

Time and Facility Considerations

- Time to train an athlete: 9 months / 6 months / 4 months / 2 months
  - How much time do you / the school / club athlete want to invest?
  - Develop goals for each phase of development
- Facility equipment and concerns
- Accessibility to hurdles, blocks, pits, track

Oct/Nov	Dec	Jan	Feb	March	April	May/June
Max strength	speed	Race Model	Speed/ peak1	Reload	Race Model	speed/peak

9 months – double periodization
6 months – do speed development first
3/4 months – Let them compete

- Sample Workouts

Coaching Considerations

- Are we going to be experience oriented coaches or results oriented coaches?
- You may have 2 or more people that are involved with the development of the athlete. However, only 1 person can lead the planning for the athlete. Too many chefs in the kitchen and the situation becomes a disaster.
  - Daily Coaches vs. Specialized Coaches
  - Knowledge Rich Coaches vs. Time Rich Coaches
- During the general prep or competition phase, you can lift / Plyo before Jump tech
- In competition or peaking, jump tech should take place fresh

Jump Tech

- At our level, Plyo / Lifting / Bounding is jump tech in the fall or during general prep.
- You can always do speed or race modeling before jump tech, just can't accelerate the volume: that wears them out

Sample Training Schedule for Competitive (in Season)

Monday	Tuesday	Wednesday	Thursday	Friday	Sat
Race Model P.V. Tech	Lift/plyo Horizontal Jump tech	Rest	Duel meet	Lift/speed Run throughs H.J tech	Compete Race model Practice

Multiple event athletes must train as Sprinter(s) / Jumper(s). This includes High Jumpers and or Pole Vaulters who often just want to jump. They are Sprinters first. These athletes don't need to train in order to run the 400m.

3. Competing the Athletes

- Are we going to be experience oriented coaches or results oriented coaches?
- Consider the meet(s) for which your athletes are training or peaking
  - Duel meets (can be) training days.
- Don't be disappointed if your kids don't do well in a meet for which you haven't prepared them (e.g. Stanford, Arcadia, Sac, Meet of Champions). *These are simple meets to prepare for at a high level. Not the prize.*
- League / conference / section / state / USA juniors / world juniors. This is the prize, depending on your talent level. Plan!!!!!!!!

4. Conclusion and Key Points to Consider

- Athletes don't need to do all events at every meet.
- Ask yourself if these athletes need to or have to be on a relay team.
- Long term vs. short term goals and concerns. What's more important: the duel meet or the Saturday invitational?
- Do your athletes need to attend a meet every Saturday? How about practice?
- Team goals vs. individual development goals
  - Athletes are training for multiple events but their main focus / event will be addressed at the end of the season.
  - Team concerns take precedent during the season and fit well into the development of athlete for championship meets at the end of the season

Thank You!

Please contact me for questions or feedback.

- Steve Nelson - sn0038@aol.com

Strength/Speed Tests factors that determine Race performances

You may have the speed to race at a certain distance. However, without the power/acceleration/coordination and ability to hold a certain stride length over the period of a race. This task will be near impossible. Accomplishing the goal of achieving certain marks can only be achieved if the athlete is proficient in all aspects of the race. Some of these tests are more or less important in each of the Races. However each test will be a factor in development of all of the races. This is only a guide to help further aid our athletes in identifying problems and achieving success on the track. Kind of a quick check.

1.**100-400 extrapolations**/Times from Curtis Taylor (Univ. Oregon./Carol Smith USC computer program.

2.**800-3200 extrapolations** come from Tony Veney(Ventura College)and U.S.A women's sprint development chair and Vince Anderson (Texas A&M University)
800 meters=400 + 4-5 secs gives you the 1st lap of the 800 add 2-3 for lap 2
1600 Meters=Avg. pace of 800 +6-7 sec per lap
3200Meters=Avg. Pace of 1600+6-7 per lap

3.**Bound norms are from(Track Techique) Russian sprint norms. /Extrapolating of bound norms past level 5 done by Steve Nelson**

Target Times (F.A.T.)	30 fly time	Stand L.J.	Stand 3Bd.	Stand 5bd	10 bound
100= 10.17-10.67					
200=20.55-21.57					
400=45.50-47.76	2.80 to	2.90to	9.20.to	15.90 to	33.50to
800=1:44.7h-1: 49.9h	2.95	3.20	10.00	17.10	35.50
1600=3:54h-4:04h					
3200=8:32h-8: 56h					
100=10.71-11.11					
200= 21.64-22.45					
400=47.96-49.72	2.96 to	2.70 to	8.50 to	14.60 to	31.00to
800=1:49.9h-1: 54.2h	3.08	3.00	9.10	15.00	33.00
1600=4:04h-4: 14h					
3200=8:56h-9: 16h					
100=11.21-11.71					
200=22.66-23.67					
400=50.18-52.44	3.11to	2.60to	7.90	14.00to	29.00to
800=1:56.1h-2: 02.2h	3.26	2.90	8.50	15.00	31.00
1600=4.16h-4.26h					
3200=9:20h-9: 50h					

Coninued on reverse….

100=11.81-12.21					
200=23.88-24.69					
400=52.89-54.70	3.29to	2.50to	7.50to	13.40to	27.00to
800=2:03.9h-2:06.5h	3.41	2.80	8.10	14.40	29.00
1600=4:32h-4: 38h					
3200=9:20h-9: 50h					

100=12.31-12.71					
200=24.89-25.71					
400=55.15-56.96	3.44to	2.40to	7.20to	12.80to	25.00to
800=2:08.1h-2: 13.3h	3.56	2.70	7.80	13.80	27.00
1600=4:44h-4: 45h					
3200=10:24-10:48					

100=12.81-13.21					
200=25.91-26.73					
400=57.41-59.22	3.59to	2.30to	6.90to	12.20to	23.50to
800=2:13.3h-2: 17.9h	3.71	2.60	7.50	13.20	25.90
1600=4:56h-5:04h					
3200=10:48h-11:04					

100=13.24-13.41					
200=26.79-27.13					
400=59.37-60.12	3.72to	2:20to	6.60to	11.60	22.75to
800=2:17.9h-2: 20.8h	3.77	2.80	6.90	12.60	24:70
1600=5:04h-5: 10h					
3200=11.04h-11.16h					

100=13.44-13.61					
200=27.20-27.54					
400=60.27-61.03	3.78to	2.00to	6.30to	11.10to	21.75to
800=2:21.0h-2: 24.1h	3.83	2.20	6.90	12.10	23.75
1600=5:10h-5: 16h					
3200=11.04h-11.28H					

100=13.64-13.81					
200=27.61-27.95					
400=61.18-61.93	3.84to	1.90to	6.00to	10.50to	20.50to
800=2:24h-2: 27h	3.89	2.10	6:60	11.50	22.50
1600=5:16-5:24					
3200=11:28-11:44					

100=13.84-14.01					
200=28.01-28.35					
400=62.08-62.84	3.90to	1.80to	5.70to	9.90to	19:50to
800=2:27h-2: 30H	3.95	2.00	6.30	11.10	21:75
1600=5:24h-5: 30h					
3200=11:44h-11.52h					