

Measuring what Matters – Guidelines to Evaluating Practice Times

Part 1 - Is Your Sprinter a Diva or a Rock Star?

By Carl Valle

The purpose of this article series is to break down the 100m sprint and 200m sprint events into four testing qualities; Acceleration, Maximal Speed, Speed Endurance, and some specific work capacity. While this series is focused on the short sprints, other events like the jumps, hurdles, and 400m can also benefit from good evaluation methods and record keeping. No matter what program one uses to develop Track and Field athletes, it's important to test both practice and break down performances properly to see what is working and what has to be adjusted. The article series will dive into general principals of practice times with acceleration, maximal speed, speed endurance, and the relationships between practice and meet performance.

The Need for Good Record Keeping

Most sprint coaches do a good job of getting times and distances in practice, but don't look at the other elements of the program such as strength training and jump workouts. Recording warm-up routines and post-practice sessions such as stretching programs and even warm-downs themselves does clue us in to why athletes are not developing due to injury, illness, and design errors. Getting into those record keeping details is beyond the scope of the article series, so I will focus on breaking down practice times and how to evaluate short sprint performances in meets.

Evaluating Practice Times

When reflecting on workouts, it's important not to get carried away with what is done in practice or what has failed to happen during training. On the other hand, while we all know meets are the true test of what an athlete can do, many times meet circumstances don't reflect the true abilities of the sprinter. When I look at practice times I look at the context of how the performance was done and what situation created that performance. A good 30m block start timed electronically in April is drastically different than a 30m block start in November from a crouch captured with manual timing. When analyzing practice times it is important to look at the athlete biography and type of trainer they are and time with specific conditions of the performance.

Type of Athlete

Sprinters come in all sizes and shapes, but after a few years you will start to see some common traits with individuals. I don't like categorizing sprinters into one group, however it is useful to see what characteristics athletes have with both make-up (talent and personality) and training background (learning and training history). Here are ten of the many different sprinter types I have seen in my coaching lifetime:

Drop Dead Sprinter - This sprinter type has no work capacity, recovers poorly, and races well come meet day. They are explosive both in small and short bouts and are sometimes explosive and moody personality wise. This type needs general conditioning and careful training because they tend to be injury prone.

Elastic Sprinter - The elastic sprinter is very gifted and sometimes they are inherited from jumping sports like basketball and volleyball. These sprinters tend to suffer from lack of exposure to strength development and are sluggish in both acceleration, holding top speed, and seem to suffer painfully after speed endurance work.

The Workhorse - The workhorse sprinter has all the qualities a coach dreams about except natural talent.. They are usually durable, good listeners, have a strong work ethic, and are students of the sport. These athletes force coaches to push the envelope with training as they hit their genetic ceiling earlier and need creative ways to get them competing with the bigger talents.

Neophyte Trainer - The neophyte trainers are usually defectors from other sports or are stars that get faster from competing. They have poor training habits and abilities and often come in with injuries nobody has addressed because they are fast or willing to compete injured. These sprinters need to start from scratch and learn to train properly.

Practice Performer - We all have had that sprinter who has done monster performances in practice but seems to fizzle out in competition. Most of these athletes simply have some sport psychology issues such as problem with nerves or lack of competitive fire. Sometimes practice performers need to fall in love with the sport, gain passion for racing, and need to stop treating the sport like a job.

Divas and Rock Stars - The hardest and sometimes the most talented sprinters are often "Divas" or "Rock Stars". It takes an accomplished coach with a Phil Jackson approach to handling these personalities because they tend to have poor training habits, don't listen well, and are difficult to deal with. Since Divas and Rock Stars think they know more than the coach, ironically training data is very useful here because the information is objective. Still, it's important to listen to them as they often have good information to contribute, but coaches beware: don't let the inmates run the asylum.

Scientists and Zombies - Some sprinters are too educated. Scientists are students of the sport to the point they move like robots from a classic case of paralysis by analysis. Scientists also tend to think too much away from the track creating a self-inflicted speed barrier at top speed, or become slow and too methodical out of the blocks. Zombies are just the opposite with no execution of any conscious script and never seem to be able to put races together as they have problems focusing.

The Hypochondriac - The Internet age has spawned a new type of athlete that is way too informed on injuries and training methods. This athlete is ironically injury prone and constantly needs attention which hemorrhages time from a track and field program. The real frustrating aspect of the hypochondriac athlete is they are just talented enough not to give up on, creating a long four years.

Type of Program and Time of Year

Secondary to the athletes themselves is the training program you administer with your sprinters. Many programs exist, but the principles are universal to all training systems. What usually defines the program is the stated philosophy of the coach, but the reality is that the workouts themselves paint the true story of what is important.

Instead of looking at all of the types of programs and their respective differences, look at

the commonalities and what benchmarks are used to evaluate progress at certain times of the year. Most programs have pet workouts that the coach believes are effective ways to achieve higher levels of performance, and which serve as good indicators the athlete is ready to hit a certain standard based on the times in practice. The standards or benchmarks in practice are usually based on the time of year, as most programs must compete in a calendar with very little optional competitions such as dual meets.

General Guidelines When Recording Times

More explicit details of what procedures are necessary to capture sprint times and splits will be expanded in separate articles later. When recording practice data it's important to list some basic information aside from the athlete's name and time. Recording information such as temperature, wind, and if possible how the athlete ran with a very brief note can be very pertinent. Often, a carefully chosen word can really make a difference because videoing every single sprint with your team is a major burden. Sometimes video is mandatory, as times without mechanics doesn't tell the full story. In general, practice administration duties can bottleneck things so I recommend only videoing when necessary.

GPP Testing - Most programs don't do max fly work on day one because of risks of injury coming off a layoff or voluntary summer program. Fitness tests that are running-based is a popular way to get a feel for how in or out of shape your team is. Team fitness tests are too endurance based, meaning succeeding and scoring well indicates a potential for compromise in speed development. Extensive/Intensive tempo running tests to see if your athlete was compliant in their off-season training, or to see if the athlete is injury free and fully rehabilitated, work well. Countless times I have seen athletes start the season with lingering injuries. Often, when the championship season ends, so does the rehabilitation. For the athlete, the need to rehabilitate does not seem urgent in the off-season because many injuries are only apparent if one is performing maximally or near maximally. During time off or vacation periods, time walking around doesn't signal the need for rehabilitation since they feel pain free. Light training sometimes wakes up the need to complete rehab or even start a therapy program.

I find that 3 x 5 x 200m runs on the grass with 30 seconds rest with no decay in calculated speed is a nice way to see if an athlete was compliant from summer workouts or in shape to start handling a normal practice load. High school athletes coming off other sports can be evaluated this way with similar shorter field tests, as not all team sports condition properly and playing times will vary with athletes throughout their career.

SPP Testing - After foundational work is done, classic acceleration and maximal speed assessments, such as fly work, are appropriate means. With the technology available now, timing can be done all the time. In order to gauge development, it's good to have a very deliberate practice that is purposely rested but not tapered. During this SPP, many programs test block clearance and maximal speed. While 30m fly is a great tool to assess maximal speed, I find that developing speed often comes from longer and slightly slower velocities because, in a 30m fly, athletes break rhythm or stiffen up trying too hard. So while the mantra "testing equals training and training equals testing", if done too frequently, fly work can be very draining and risky.. It's important to get at least one testing session in the SPP to see progress year to year.

In addition to actual acceleration and speed tests, jump tests and current training loads should be tested. I have personally abandoned all maximal tests in the weight-room as near maximal loads are sufficient to show progress without risking injury. This approach

reduces number chasing allowing athletes to focus on much needed technique with lifting.

Midseason / Transition SPP - Speed Endurance tests can be done when the athlete is ready to challenge the final needs of their event. Sometimes this can be slightly shorter than the race with abbreviated rest periods, but most coaches prefer over-distance of some sort. Psychologically, longer than event sprints gives great confidence to the athlete to know that they are ready to handle repeated rounds or the finish of a championship race. In addition to the mental side of preparing the athlete, longer runs create smooth transitions because you have more time to work with. Finally, the longer runs help establish a good rhythm that allows relaxation benefits and the ability to sustain technique.

Many coaches question whether to test speed endurance in-season. One fear is that in-season workouts are too taxing and could lead to injury or poor performances later. With winter/spring breaks and training trips interrupting competition, speed endurance tests are great options to fully test the sprinter's abilities. Sometimes resting from competition and getting good practices in can clue a coach in to the effectiveness of training more than some meets which are "schedule fillers". Average meets with too much baggage are not worth the investment due to tiring travel, subpar competition, and poor venues.

Closing Thoughts

In summary, it is wise to think of the context of your athletes' times in practice. - what are the key details of how those times were performed. After the context is fully understood, consider the relevance of the performances at specific times in the year by interpreting what those times mean in relation to the big picture. Finally, the coach has to properly compare the significance between different seasons and individuals in a training program.

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