

How Swimmers Improve, Get Fast and Stay Fast!

Hans' Blog

There are generally many reasons why swimmers improve their times. This will vary according to age and experience. For example, younger inexperienced swimmers improve mostly through skill acquisition, while older experienced swimmers may need to rely upon increasing training loads and intensities as well as making technical changes to improve their results.

Skill - BY becoming more efficient and skilled swimmers naturally get faster. Good stroke mechanics, including body position and timing are crucial to speed in the water.

Training - This allows the skilled swimmer to maintain their skill without breaking down, for longer periods of time and distance. It is important to increase training loads gradually over time for the best results.

Size / Strength - Getting bigger and stronger will help a swimmer improve. The longer the levers the more water they can help you move, but also a bigger body requires more strength to move as well.

Cognitive / Experience- This is often under-rated, but knowing how to race, train and recover are important factors.

Positive health - Staying injury free and illness free allows for unimpeded progress

Motivation/ Self Interest - This is often very complex, while being simple at the same time. Different things motivate different people. What motivates you and keeps you training towards your goals?

The most enduring of these is skill. That is because skill is hardwired into the brain. Once you have learned how to swim fast, that skill will never leave you. It is also for that reason, the most difficult thing to change. That is why it is important to learn proper skill and technique at an early age.

Swimmer Monitoring / Testing

Why - We, as coaches, test for a number of reasons. Mostly to determine if our training goals are being met. This allows us to make educated adjustments in the content of our programming.

What are we Testing - no one test, tests everything and no one test, tests only one thing! That means you have to take special care in interpreting the test result. You might see an improvement in the result, but it might not mean an actual improvement in what we are trying to test. I know, clear as mud right?



Aerobic capacity - Can swimmers swim the same speed, but for a longer distance? Can they swim the same speed at a lower heart rate? How long can they keep swimming at a given rate of speed? With senior swimmers, we can normally do this by having them swim at a given heart rate and measuring velocity, eg T400 or more.

Skill - We do turn and start tests, which measure skill to a great degree but also power and speed.

Power - How well can swimmers maintain speed and stroke count on a given set, eg 20 x 50 on 1:00 best average.

Speed - Also measures skill and power to some degree, but best sets for that are 10 x 50 - best average as well as 4 x 25

Kick - This week for example we are doing a 200 kick for time, usually we do many different kick tests. We started Kick Club last year to help put the focus on better kicking in or club.

How - It is important to conduct the tests the same way each time. Sometimes on the same day of the week, with exactly the same warm-up and preparation.

When - Usually we conduct the tests every 4-5 weeks, depending on what time of the season we are at. Some tests we do on a weekly basis.

Age Appropriate Tests - Some tests would not be used for younger swimmers, for example if they are not ready to do it or if we feel that it is not something we wish to test at that time in their development.

How to Interpret and Use Effectively - Each coach has to look at the results of the test and determine why we got those results, determine if the goals were met and then adjust training accordingly. Tests are very individualized, some people improve faster than others and often not as consistently as expected. Tests are not to be used to compare with other swimmers, only to see if a swimmer has improved.

I will give you an example of 2 different swimmers who had the same result on a T400. They both swam 4:20 on the test. One would expect that both would have the same time on a 400 freestyle. They did not, one, who was more of a sprinter (he made the Olympic team in the 4 x 100 free relay) went 3:51 and the other boy went 4:04. Why? The latter boy used more aerobic energy when racing and the sprinter used more anaerobic energy while racing! That is why it is important never to use the result to compare with other swimmers. It goes against the purpose of the test, which is to see if the training and preparation have been effective. That is not to say that consistently good test results will not result in faster racing, IT DOES!

The Key is to measure progress in as many different key areas of the swimmers' development as possible.

Going Back into the Program



One of the things that I normally do as a head coach is to observe the rest of my staff as they coach their swimmers. We then discuss how to approach each situation they may face and try to help them form the best strategy both for them and their swimmers. Pretty well all of my coaches have a different style of coaching and approach. The commonality is their ability to relate to their swimmers and understand their needs. Their goals are always the same, to help their swimmers achieve to the utmost of their abilities.

What I have had the opportunity to do this year, is to actually coach some of those younger swimmers. This is helpful to us in several ways

Understanding their needs - By actually working with those swimmers, I become more cognizant of what they need to improve and how we as a club and staff can help them get there.

Changing my style - Coaching different age kids has forced me to change my general approach. You cannot coach a youngster, the age of 10, the same way you would an adult or a teenager.

Learning first hand what my staff is working with - The more I know this, the more I can help them become better coaches, now and in the future.

Knowing my coaches' jobs, more difficult than it looks - I have always said that if you want to be someones' supervisor, you should try doing their job for a while.

It will also help me to achieve one of my main goals, getting to know each swimmer by name and hopefully a little bit about them!

Coach Hans

