

## Swimming and “Rate of Improvement”

The below article relates to a swimmers improvement over a season, year or their swimming career. What I hope to highlight is the fact that swimmers do not swim personal best times (PB's) every time they jump into the pool and that it is ok not to swim a PB every time you race and it should not be an expectation to swim a PB every time you race. What we are looking for as coaches is a steady constant rate of improvement over a season or a number of years. The faster the rate of improvement the better (it doesn't matter where you start, just matters that you are improving and improving faster than your competitors...)

Below are examples from 2 swimmers. The 1<sup>st</sup> example is from MLC Aquatic's best performing swimmer Jessica Hansen and her 200 Breaststroke. The graph shows from 2009 – 2012 Jess has improved from a 2:49 down to 2:29 (20 seconds over a 3 year period). The graph also illustrates that there are times in the season where Jess has swam well slower than her best time. What is important to note is looking at the major competitions for the season, the blue Circles (Age National's) and the yellow circles (Victorian Age Long Course) Jess has improved.

### Jess Hansen 200 Breaststroke



The second graph (below) is from a younger MLC Aquatic swimmer and their 200m Breaststroke race from 2010 to 2012. The graph shows the swimmer improving 30sec over the 2 year period (compare this to Jesses 20 sec in 3 years...). This is a common trend with younger swimmers improving at a faster rate than the older swimmers as well as swimming PB's more consistently. Again it is important to note that this swimmer has not swam PB's every time they have raced the 200 Breaststroke as seen by the green circles but the general trend is a very good and steady rate of improvement.

## Junior Swimmers 200 Breaststroke



There are many reasons for swimmers not swimming PB's at every competition, apart from the obvious – illness, a recent holiday etc.... One of the main reasons for healthy swimmers not to swim PB's at every competition is due to the training load and focus of a particular competition. During the training phase's coaches are focused on getting the swimmers fitter, stronger, faster, better skilled as well as trying to teach new or more complex race plans.

Often swimmers are physically exhausted, sore and not capable of performing to their potential during periods of heavy training. This begs the question - as coaches why don't we let the swimmers rest before every competition so they can swim fast? The reason for this is that we are aiming to have the swimmer "peak" at the major competition for the season. If we rested the swimmers for ever little competition through the season then the "peak" at the end of the season will not be as good.

During in season competitions (not the major competition) we are trying to teach the swimmers different race plans i.e. go out fast and try to hold on, go out controlled or slow and try to finish fast, kick 10m underwater every wall, hold a stroke count per 50 or per 25 etc... Over the season we work out what is each swimmers best mode of racing, how fast to go out in a race, how many kicks under water off each wall are ideal for each swimmer etc? Often to achieve this we have to ask the swimmer to forget about swimming "fast" and aiming for their best time but to swim to a race plan at 90% in order to get the plan right.

The best way to monitor rate of improvement is to compare times from the same event / time or date from one year to the next i.e. 2011 state champs to 2012 state champs.

Nick Veliades  
MLC Aquatic Head Coach