

Using the Tempo Trainer for Swimming
David Williamson
Head Swim Coach
James J. Harris YMCA, Charlotte, NC

One of the more interesting topics that was discussed during the USMS Swimfest this past June was the use of a small device known as a Tempo Trainer (manufactured and sold by Finis and available at their website, www.finisinc.com) and how it could enhance pace training and stroke efficiency. The Tempo Trainer is essentially a metronome for the pool. It produces an audible beat that can be set to a variety of tempos. The device easily clips to a goggle strap or fits under a swim cap just behind the ear. For those of us who played a musical instrument while growing up, I am sure that we all remember the experience of trying to play in time to the metronome or having our teacher clapping behind us as we tried to match her rhythm. Essentially, the Tempo Trainer is serving the same purpose, but hopefully provides less stress than a clapping piano teacher.

Pacing oneself in a race is always a tricky business, whether it be swimming, biking or running. For distance races, you do not want to expend too much of your energy in the early part of the race, but you do not necessarily want to save everything for the last part of the race. In a sprint, you want to insure the incorporation of a fast but efficient turnover and an expenditure of energy that allows for (if necessary) a final blast at the end of the race. Learning to pace oneself and practicing to pace is a tricky business in swimming, especially when you wish to avoid having to delay a swim by checking a pace clock or interrupting your stroke to look at a watch.

With the Tempo Trainer, pace training becomes much simpler. Under the pace training mode, the audible “beep” on the device can be set to sound itself at an interval, ranging from ten seconds to nine minutes fifty-nine seconds. An example is always fitting. Let’s say that you are training for a 500 yard freestyle race. Your goal time for the race is five minutes and you wish to pace the entire distance fairly evenly. By using the Tempo Trainer, you can set the “beep” to sound itself every minute. This will give you the ability to judge and to adjust your pace accordingly as you practice, without having to interrupt the swim to check a clock or to communicate with someone on the side for guidance. Unfortunately, for all of the triathletes and open water swimmers out there, this device is forbidden in competition.

The second use of the Tempo Trainer is for stroke efficiency and technique. As we are all aware, using time alone is not a great measure for stroke efficiency as it is possible to achieve decent times with inefficient strokes. Possibly the best measure for stroke efficiency is through stroke count. Under its second mode, the Tempo Trainer can be used to assist a swimmer in decreasing their overall stroke count for a given distance and in the process, increase the efficiency of their stroke. Under this mode, the “beep” on the Tempo Trainer can be set to sound itself from anywhere between 0.2 seconds and 9.99 seconds in increments of 0.01 seconds.

Working out the timing of the “beep” can be somewhat tricky, as you want to time it to correspond with the start of each new stroke (therefore, calculating the optimal time

may require a little trial and error). The best suggestion on doing this is to determine a pace you wish to hold for twenty-five yards and the number of strokes you feel you should take for that distance. For those of us who fear complicated math, I will make this easy. Let us say that for twenty-five yards of freestyle, you are able to complete the distance in fifteen seconds and you wish to take no more than fifteen strokes. Set the “beep” on the Tempo Trainer to sound in one second intervals. With each “beep”, you should be starting a new stroke.

Unfortunately, I have not taken the opportunity to use the Tempo Trainer with any of my Masters swimmers since returning from San Diego (although there are more than a few that I have in my crosshairs to use as guinea pigs). However, I have had the opportunity to utilize the Tempo Trainer with a nine year old from my youth team. This swimmer had shown great proficiency in breaststroke, but I was having trouble with him not stretching out his stroke. Although his time was not bad, his stroke was highly inefficient and he had the potential to swim much faster. During a one on one session, I hooked the Tempo Trainer to his goggles in an attempt to stretch out his breaststroke (and in my opinion, of all four strokes, breaststroke can possibly benefit the most from use of this device). Knowing that he could swim a twenty-five yard breaststroke in around twenty-five seconds, I guesstimated that he should only need around fifteen strokes to travel from one wall to the next. I set the “beep” to sound every 1.67 seconds. At first, the swimmer struggled to match his stroke with the “beep”. Over the course of about 150 yards, his stroke synchronized itself more and more to the rhythm. I am proud to say, he not only cut back on his stroke count significantly, he also dropped more than 2.5 seconds from his breaststroke time.

The Tempo Trainer is not only useful for swimming, but can easily be used for running and cycling as well (the perfect triathlon training tool). For coaches, it can be used for any swimmer at any level, from the beginner who is just starting to grasp the mechanics of a stroke, to an advanced and experienced swimmer whose strokes may simply need a 5,000 mile diagnostic tweaking. Whatever the case may be, it is a training tool that is worth giving a try. Otherwise, you will simply be running up and down the side of the pool keeping count with a clap, which the swimmer will not hear anyway!