

## Teaching Technique – What We Know, What We Think We Know, and What We Do.

By John Leonard

One of the more common questions that parents have, is when/how the coach teaches the technical aspects of swimming to the athletes. First of all, we know that swimming is a “technique limited” sport. Which means that without good technical strokes, starts and turns, effort and hard work will only carry you a very limited way.....the fact that water becomes more resistant as you go faster, means that perfect technique is rewarded and impaired technique is punished with less speed for more effort. This is age old wisdom that is accepted by all experienced coaches and athletes.

We think we know, that we can teach good technique. Coaches spend countless hours learning not only WHAT a swimmer should do, but HOW to teach them to do it. It appears, in non-scientific terms, that when coaches spend time teaching technique, technique improves. We hope that means there is a direct correlation between our teaching and the athletes learning. It's a reasonable belief.

Our friend Dr. K. Anders Ericsson at Florida State University, is the world's leading authority on “becoming an expert” in any domain. Part of his research, written about in popular literature, is that it requires 10,000 hours of dedicated practice (which he terms “Purposeful practice”) in order to acquire “expert” status in any domain. Interestingly, if the ordinary swimmer begins practice at age 8 and follows a normal curve of increasing practice hours each year to age 17-18, they will have put in approximately 10,000 hours.....which is a nice coincidence with the long held “truth” among coaches that it takes 10 years to “make a swimmer.” Science meets experience right in the middle, and both are validated.

Now “purposeful practice” is time that is focused on specifics and exacting detail in performance. It has constant and realistic and expert feedback from the teacher, and feedback again from the athlete to the teacher. The entire effort is hard work, not much fun, and mentally focused and exhausting effort.

Is that what we do in swimming? Not for most of us. When swim coaches teach technique, it is typically “to the team” or a group of the team, almost never in a sustained 30-60 minute burst of one on one teaching. (essentially a private lesson.) My friend Guy Edson, who edits and distributes this newsletter, describes it as working to “get in the same neighborhood” as a good

stroke, with most of his novice swimmers. Not necessarily in the right house, much less in the right chair in the living room....just getting in the neighborhood. Swim Teams, by their very nature, of being "A TEAM", do not allow much one on one teaching....or what Dr. Ericsson would call "deliberate, or purposeful practice."

Of course, years of successful age group swimming would tell us that we're being successful "somehow". Perhaps at certain ages, "getting in the neighborhood" of a great stroke is enough. As the child matures, additional purposeful practice gets the athlete more finely tuned, and eventually, if they are purposeful and studious enough to warrant a lot of one on one attention from a coach, they will have the opportunity to personalize that perfect stroke for them....deliberate and purposeful practice at its best.

To be successful in swimming, we need to not only learn, but also to improve our physical state...training. Both are needed for top performance at all ages. So those 10,000 hours of practice we put in may not all be "purposeful and directed learning", but many of them qualify as contributing to our eventual expertise.

The question for coaches? How to incorporate more of that deliberate and specific practice to improve strokes? And the question for parents and athletes? How to best apply the "training time" to swim the strokes in the patterns that have been taught by the coaches.....so they become habit and ingrained skill.

Improving the quality of our practices will improve the speed of our performances.