

SWIMMING SCIENCE BULLETIN

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COACHING KNOWLEDGE AND USRPT

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A coach commented (4/18/2013): *"I think it is important to keep in mind that no one is going to be right about everything, so when using the technique suggestions and training guidelines one has to evaluate it, but as Dr. Rushall has said, he only advocates what has been backed up by research and observation."*

It is worthy to keep in mind that there is an abundance of research on exercise in general, a variety of sports, and swimming in particular. When research findings are presented and accepted after meeting the tenets of acceptable research conduct by a panel of qualified colleagues, the conclusions can be used/adapted in the practice of swimming. Much, but not everything is known about what is needed to maximize the potential of individuals to perform in the sport. What USRPT and other evidence-based offerings of Dr. Rushall have is that they are not whimsical. They have been shown to work and when applied according to strict guidelines should work in situations where they have not been used before. The same confident logic pertains to research that shows activities and coaching practices do not work at all or do not work as well as more effective procedures. When positive attributes are prescribed and negative attributes are inferred, the negatives should be removed from serious swimming environments.

A coach that only adopts practice and competitive activities that are evidenced-based is likely to be very successful as long as the Principle of Specificity and Principle of Individuality (Rushall & Pyke, 1991; Rushall, 2004a, b) are observed. If that is done, coaches should not be attempting to make swimmers train and swim like a model of a champion but rather determine whether the way they swim is in accord with known principles of human movement. It is only when the mechanics of an action are correct will satisfying performances result.

But, the opinion stated above suggests that since our evidence-based knowledge is incomplete, that perhaps there are other "non-Rushall" activities that would be effective. There would be if they are evidence-based and independently replicated. Rushall readily admits he does not know all there is in competitive swimming but as his *Swimming Science Journal* (<http://coachsci.sdsu.edu/swim/index.htm>) and *Coaching Science Abstracts* (<http://coachsci.sdsu.edu/index.htm>) show, he knows a lot. What needs to be avoided is the fantasizing of activities or equipment being useful for contributing to performer improvement. Making-up "things" is not a way to improve the services offered by coaches in a sport. It is tantamount to adding "noise" to the knowledge-base, which in its true sense commences to obscure, dilute, or even be contradictory in effect to the known principles.

If a swimming coach only conducts his/her profession using evidence-based principles of effects/benefits, all swimming activities will be directly relevant for yielding swimmer

improvements. Non-evidenced-based principles (unfounded-beliefs) are irrelevant if improving one or more swimmers is an aim.

1. Coaching only evidence-based principles of effect/benefit is a pathway to successful achievements.
2. Coaching evidence-based and belief-based principles has the potential to thwart swimmer improvements because all things being equal, for every relevant coaching act there is an irrelevant coaching act that cancels the original's beneficial effects.
3. Given the state of swimming knowledge at this moment¹ coaching only evidence-based principles will yield the best possible effects. As new evidence-based principles and procedures in swimming and like sports are objectively verified, the coach can decide whether or not to add them to swimming practices.

In the Rushall approach to coaching, there is only room for improvement in coaches' and swimmers' performances because evidence-based (proven) principles of human movement are to be used.

¹ April 25, 2013