Improvement's Torturous Path

Parents' Article Archive

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The unpredictable pattern of improvement among competitive swimmers is one of the sport's most mystifying problems. The questions are many and the answers are few.

The feeling among coaches is nearly universal. It's an odd mix consisting of equal amounts hope and caution. They don't know quite what to make of their prodigies, the 9-, 10-, or 11-year-olds who seem to have it all – feel for the water, competitive drive, and the talent to adapt and improve technique.

They are almost too good to be true. Therein lies the hope. And very often, they are. That's where the caution comes in.

"You wonder how much longer they will be around," says John Collins, head coach of Badger Swim Club in Larchmont, N.Y. "If they are, will they be going anywhere nearly as fast (when compared to their peers)?"

It's arguably the single most mystifying problem related to the development of swimmers. Why do some improve steadily and others plateau? Why isn't the slope of an improvement curve predictable? Basic logic dictates that as swimmers get older, they should be bigger, stronger, better trained and therefore, faster. Improvement might not have a constant, positive slope – nothing in sport is that assured – but it should be steady over the long-term, with peaks of larger magnitudes than valleys.

However, those familiar with swimming know this is simply not the case. Improvement's path contains detours and even U-turns. Many brilliant young swimmers plateau, and then, says Collins, who has coached three swimmers from age groupers to Olympians, the "window of opportunity closes. They are sure bets for the next year and the next year never comes. Kids expect to improve every year, and in many cases, that simply doesn't happen."

This unpredictability baffles coaches, infuriates parents and exasperates swimmers. It's not a situation unique to swimming. All sports are littered with stories of hot shots whose competitive careers turn cold. Damon Bailey was labeled a can't-miss basketball prospect as an eight grader by no less of a luminary than Bobby Knight, who was then the head coach at Indiana University.

Bailey went on to lead his high school to the Indiana state championship before a frenzied crowd of 41,000. He was the state's Mr. Basketball and a consensus All-American. Then his stature began to slip. The best he did in college was make first team All-Big 10. He was picked 44th in the 1994 NBA draft and lasted only a year in the league. Even Bailey has admitted that his most enjoyable times as a basketball player were in high school.

“You will find that across sports, there is not much correlation between those who have success when they are 10 and 11 with those having success when they are 19 and 20,” says Dr. Thomas Raedeke of the Department of Exercise and Sport Science at East Carolina University. “It could be for a lot of reasons, not the least of which is that when success comes early on and you are improving by leaps and bounds, you come to expect that. When it stops, and you are improving only fractionally, that can be very frustrating, especially when others you used to beat are improving more. It may cause you to question your commitment to the sport, which affects how hard you work and whether you continue to improve.”

Swimming has the added dimension of simplicity. The sport’s only element is speed, which can be measured objectively. Unlike team sports, where individual improvement is calculated by an equation of multiple variables, any one of which is as subjective as the meaning of justice, a swimmer’s progression can be evaluated to the hundredth of a second. It is the sport’s major plus and its most glaring minus. A tight end in football can unfailingly cobble together a logical path to improvement. If he begins to show a tendency toward dropping passes, then he can point to his more developed blocking. If his blocking shows signs of regressing, he can claim that the opposition is stronger.

The stopwatch prohibits swimmers from any such forgiving outtakes. You either did better or you didn’t. You’re either stepping forward or you aren’t. Childhood stars have the added burden of staying up with their peers. As one coach recalls hearing from a 14-year-old, “The people watching are laughing at me because I can’t even beat the records I set when I was 12.”

TOO FAST, TOO YOUNG

Like Collins, Dr. Genadijus Sokolovas, USA Swimming’s director of physiology, talks of missed windows of opportunity. He sees peak performances as a 10- to 12-year-old as a work in progress, beginning with preliminary preparation for those under the age of 10 and advancing through basic training (10-12), specialization (13-18, depending on gender and event), and peak performance somewhere around ages 18 to 20 (later for sprinters).

Patience is the key, according to Sokolovas. Rushing through any one of the stages – or skipping one altogether – might push swimmers ahead of their peers for a time, but it won’t lead to the ultimate goal of peak performances at full physical maturation.

The stages Sokolovas speaks of begin with the development of fundamental skills, flexibility and general endurance, and progress gradually to higher volumes of training with increased intensity. The concept is for swimmers to hold off on the tougher workouts until they are best equipped to handle them, thereby inducing the highest training value and the most overall improvement.

Very often, Sokolovas says, young swimmers who are ahead of their peer groups are pushed forward in the developmental cycle, with intensive, high-yardage training introduced too early. By the time they are most able physically to handle to the higher levels of training stress, they are on the downside of their adaptation cycle.

"If they are fast when they are young with a minimum of workload, that's one thing," says Sokolovas, "but if it's because they are 10 and doing 7,000 yards a day, that's something else. In that case, it's not good to be too fast too young."

In a study he authored, Sokolovas compared the swimmers in the best all-time, top-100 times for age groups from 10-and-under through 17-18. Among the 17- and 18-year olds, only 10.3 percent of the girls and 13.2 percent of the boys were listed in any event as 10-and-unders. When compared to the lists of 11- and 12-year-olds, the percentages were 20.3 for the girls and 12.6 for the boys. Not until the 15/16 age group did the percentages become significant – 49.7 for the girls and 53.5 for the boys. As Sokolovas concluded, "Most of the future elite swimmers swim slower than age-group champions, especially at ages until 15-16 years."

"So many want to be successful right now," Sokolovas says. "They don't want to wait. They don't understand that if their bodies have already adapted at age 12 to a high volume of training and intensity, there is little room for them to go. How can they improve?"

The outlook for young speedsters is not quite as bleak as Sokolovas' study might indicate. His baseline of all-time top-100 times came from the national compilation done every year of the top-16 times from each of the age groups. In essence, Sokolovas looked at the all-stars of all-stars.

The top-16 rankings portray a significantly different picture. Of the 43 men and women on America's 2004 Olympic team, 18 (42 percent) had a top-16 national ranking in either short-course yards or long-course meters as a 10-and-under. Among those were Michael Phelps and Aaron Peirsol, who set world records in Athens, and Jenny Thompson, who, at 31, competed in her fourth Olympic Games. Twenty-five of the 2004 Olympians – 58 percent – had a top-16 ranking as 11- and 12-year-olds.

Still, few within the swimming community question Sokolovas' contention that too much too early can lead to too little later on. Susan (O'Brien) Williams swam at the 1980 Olympic Trials as a 14-year-old and did a 1:05 in the 100-meter backstroke. At the Olympic Trials eight years later she did a 1:03. Within that period, she endured three years without improving her time at all.

"I did too much when I was young," she concedes. "From the time I was 12 until I was 14, I was doing nine practices a week. When I was 13, I did three practices a day over the Christmas holidays. Where could I go from there? It was not as if I could go from five practices a week to six or seven. I couldn't do any more."

"So what if you are great when you are swimming against other 10-year-olds?" she adds. "Who has the talent and desire has yet to be determined. It's better to pace yourself. You want to be great when you are 16, 17 or 18."

PEAKS AND VALLEYS

Properly timing a swimmer's training development can be tricky. The rules apply generally, but when it comes to specifics, former world record holder and club coach Sue Anderson found herself repeatedly asking, "Am I doing the right thing for this kid?"

Anderson, the resource development specialist for USA Swimming, recalls two 12-year-old girls she coached at the Scarlet Aquatic Club in New Jersey during the 1990s. Both surpassed Junior National standards when they were 12. Anderson held one back from the senior group and didn't send her to Junior Nationals the first year she qualified. Anderson pushed the other girl right along, both with training and competition. Neither developed fully as a senior swimmer.

"It's not a science," Anderson says. "The only science to it is that you can't count your chickens when the swimmers are 10 and beating everyone else. It could be because they trained too much. It could be because they were physically more mature and after a few years, others in their age group will catch up. Or it could be because they have real talent for swimming and will continue to develop. You just never know."

Raedeke agrees. Improvement is never a given, not in swimming or any other sport. Slumps are part of athletics. Their causes can be as hard to pin down as next month's weather. Problems arise when mechanics or training routines are scrutinized too closely. Very often, neither is the major problem. Nevertheless, athletes, coaches and parents demand answers when all that is needed is patience.

"As you get further into a sport," Raedeke says, "improvements are harder and harder to come by. We all know this, but when you are the one affected, you want to change things even though the best course of action might be to wait it out."

Pat Hogan knows a thing or two about waiting it out. In 1996, a swimmer he coached at the Mecklenburg Aquatic Club in North Carolina, Jilen Siroky, made the U.S. Olympic team in the 200m breaststroke as a 14-year-old. Though she continued to swim through college, she never got within three seconds of the time she did in the final of 1996 Olympic Trials. This is not uncommon for girls whose bodies change dramatically in their early teens. Siroky's started to change immediately after the Olympics.

"She wasn't the same swimmer," recalls Hogan, USA Swimming's managing director for club development.

A change in stroke technique didn't work, though emphasis on other strokes helped, allowing Siroky to experience once again the joy of improvement. However, she never achieved the level of accomplishment that she did in 1996.

And yet, as Hogan says, "I was as proud of her the years after the Olympics as I was when she made the Olympics. As hard as she worked going into 1996, it was no different in '97 and '98. She struggled, but that's one of the great things about our sport. When you are not improving, you begin to question, 'Why am I doing this?' You learn to struggle, and that's good for kids. They learn a lot. You can't enjoy the peaks unless you go through the valleys."