

The South West Talent Development Centre

Case Study No 1: Relative Age Effect

July 2009



The South West Talent Development Centre is a joint initiative between the University of Bath and Sport England. Its objective is to maximize the potential of people from the South West to progress to elite levels in sport by providing support to and building the capacity of National Governing Bodies to implement their talent pathways in the South West.

“It’s not about recognizing talent, whatever the hell that is. I’ve never tried to go out and find someone who’s talented. First you work on fundamentals and pretty soon you find out where things are going.”

Robert Lansdorp,

tennis coach of former world number one players Pete Sampras, Tracy Austin and Lindsay Davenport all of whom grew up within a few miles of each other in Los Angeles.

Thirty years ago a psychologist attending an ice hockey game was scanning through the programme when she noticed something odd about the birth dates; most of the players were born in the first six months of the year. The phenomenon was dubbed the Relative Age Effect when further investigation showed the same pattern of birth date distribution existed amongst professional players.

The Relative Age Effect is the long term result of the subtle favouring of more physically mature children that occurs when children are grouped together by age for sport. It’s easy to forget who’s the youngest or the oldest in the group and as motor skills, co-ordination, speed and size are highly correlated to age in children, coaches and athletes alike mistake physical maturity for greater ability. Those children who are thought to be more talented receive more attention and more playing time, advantages that quietly accumulate into real differences in skill over the many years it takes to become an expert athlete. The talent pool becomes smaller as children discouraged by their apparent lack of ability relative to their more mature peers are more inclined to drop out.

Most studies of the Relative Age Effect focused on team sports however an analysis of the birthdates of Fencers registered with the South West Regional Talent Development Centre and of British Fencing’s national age group development squads shows it exists in individual sports too.

Although Olympic Fencers peak in their mid to late twenties, most Fencers in the South West take up the sport at around 8 years of age. They are recruited to the sport most often through either family involvement or through primary school based programmes. Four of the five female Fencers recruited from primary school programmes were born in Q4 (October - December) and would have been the most physically mature in their school year when they were introduced to the sport.

Table 1: Birth date distribution - South West Fencers

Quarter	All Athletes	Males	Females
Jan - Mar	30%	36%	23%
Apr - Jun	19%	21%	15%
Jul - Sep	15%	21%	8%
Oct - Dec	37%	21%	54%

Sample: 27 athletes

National age group development squads

Quarter	All Athletes	Males	Females
Jan - Mar	30%	37%	23%
Apr - Jun	28%	25%	30%
Jul - Sep	18%	21%	15%
Oct - Dec	25%	17%	32%

Sample: 105 athletes



British Fencing responded to the information on the Relative Age Effect presented to them by the South West Regional Talent Centre in two ways. They are raising awareness of the issue amongst their coaches and a strategic decision was made to invite an additional athlete from the disadvantaged birth months to attend their U17 cadet potential squads.

Advice for Coaches:

Talent isn't something magical that a child has or hasn't got. If you are working with primary school age children try to be conscious of who the oldest and youngest children in the group are so that you don't repeat the pattern of mistaking physical maturity for talent. Trying to get the 'best athlete' at an early age is rarely the most effective way of identifying or developing talent - getting the child who is the most committed, engaged and enthusiastic is.

The skill required to be an expert performer takes years of dedication, persistence and application to acquire. As there's no escaping the hard work, children who take pleasure in the sport and whose enthusiasm and interest in it are sparked are more likely to apply themselves to it over the long term and to stick with it long enough to become accomplished.

Things to look for:

Application in practice -

the child who makes mistakes because they're trying to achieve things at the outer limits of their abilities will learn more than the child who makes errors because they're not concentrating or they don't challenge themselves.

Willingness to be coached -

child who is showing the ability to concentrate, absorb what's being taught and try their best to implement it.

Independent thinking -

a child who can't offer feedback on their own mistakes or winning moves probably can't process information appropriately for top level sport.

Enjoyment -

it takes many years of training to become an expert so the child must take pleasure from simply practicing the sport over and over again.

Competitiveness -

wanting to compete and caring about winning are the hall marks of champions.

Parental involvement - no child is an island; the athlete needs their own support team to get them to lessons and competitions. Parents should be supportive and encourage participation while exerting little pressure to win.

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