A DECISION-MATRIX FOR DETERMINING RISK IN TALENT SELECTION

Athlete development is a heavily nuanced, extended process that typically involves a series of stages (or selections). These selections ultimately determine who is able to move on to the upper levels of competition and coaching. While athlete selection decisions form the basis of athlete development systems worldwide, the evidence for their efficacy is limited and existing evidence suggests the accuracy of talent identification is weak (Koz et al., 2012).

Our team has a long-standing program of research examining the process of athlete development and the value of talent identification (see Baker, Cobley & Schorer, 2012; Baker, Cobley, Schorer & Wattie, in press) in the hopes of understanding how to improve athlete development systems to ensure greater success at lower costs (i.e., improved efficiency; see Wattie & Baker, in press). Even though the notion of talent (i.e., that some people can be predisposed towards exceptional levels of performance in a domain) makes sense based on basic evolutionary theory (i.e., that genetic diversity is the mechanism of species evolution), as of yet there are no valid indicators of sporting talent. As a result, those involved with athlete selection are faced with the difficult job of identifying potential in the absence of any valid measures of its existence. As a result, they typically have to infer talent (i.e., potential) from current levels of performance. This can be problematic since the factors determining performance at lower levels of development are usually less useful (or even irrelevant) for predicting performance at the adult, high-performance level. Consider height in basketball, for example. At lower levels of skill, taller players typically have an advantage and so height predicts performance, but at the elite (e.g., NBA) level nearly all players are above average in height so this variable no longer discriminates the successful player from the less successful one (i.e., it’s no longer predictive).

Because relying on current levels of performance to reflect potential is inherently flawed practitioners are at risk in several areas. Most relevant to our discussion are the risks associated with different decisions along the athlete development pathway. The matrix shown in Figure 1 reflects the different types of risk associated with common decisions about athlete selection. For example, athletes in the grey and green boxes may not be a problem because those who don’t have high enough performance will be removed from the system while those with superior performance will stay in. Conversely, athletes in the blue boxes represent moderate risk because a) they ultimately represent ‘average’ performance
which will not be good enough to attain the levels required for true ‘elite’ performance (i.e., average won’t cut it) and b) they have the potential to ‘clog’ the system taking spots from those with higher potential. Importantly, the highest levels of risk are the green boxes since they either represent highest levels of potential that may be lost if coaches focus too much on performance as an indicator of value (boxes 7 and 8) or they reflect those with initial high levels of performance but low long-term potential. This latter group also has the potential to take spots that would be better suited to athletes with higher potential for future performance.

In science, researchers often have to consider the costs of a Type I versus a Type II error. Type I errors are ‘false positives’ in our discussion represented by selections where coaches think potential is there when it isn’t. Type II errors are those where coaches de-select someone because they think they aren’t talented when they are. It would be worthwhile for coaches and administrators to also consider ‘which type of error are you most comfortable with?’ Maximizing limited athlete development resources involves the efficient use of both athlete resources (i.e., participants) and the possible factors limiting future performance. As our understanding of the latter continues to develop, we should increasingly strive toward not neglecting our richest resource, youth with the drive and desire to practice the long, hard hours of training necessary to reach the upper echelons of sport.

References

Figure Caption: A risk matrix for talent identification decisions with grey boxes representing low-risk, blue medium-risk and green high-risk decisions.