

Decision-Making and Coaching.

Introduction

In recent times there is a push for more intelligent rugby players. The process of decision making is the key to intelligent play. Often sideline comments will be made as to why a player made a particular decision which was clearly wrong from the sideline. With this in mind, how are decisions made and what factors effect decision-making.

In any sport to be an effective participant there are a number of different skills that are required. These skills can be of a closed or open nature. Skills are considered to be closed when external factors are stable and have a limited effect on the skill being execution, such goal kicking. In closed skills there is little or no decision-making, as the technical aspects of the skill are paramount, such as rowing or a 100m sprint. Open skills are when external factors are unstable and variable, they have an influence over the skill or skills being executed. Skills of an open nature require decision-making. The majority of skills required in the game of Rugby are open skills. For example to pass the ball to a teammate a decision is required, how far to pass, when to pass, how hard to pass, what type of pass, etc.

A variety of factors can contribute to a player's decision-making abilities. By having an effective training program which is designed to influence these factors, the players ability to make correct decision's will be improved.

Coaches Role

It is one of the coach's major responsibilities to assist his or her players in skill

development. Skill development is a two-fold process, firstly providing the players with the range of technical skills they will require, (skill execution) and secondly the knowledge of how and when to use the appropriate technical skills (decision-making). In relation to skill development, the amount of time spent on either technical skill development or decision making will vary depending on the level of the athlete. At an elite level less time will be devoted to technical skill development and more to decision making, the opposite is the case for less skilled athletes who are required to spend more time on the fundamental skills that will support their decision-making in the future. Before a player can effectively make the correct decisions he/she must be competent in using the range of technical skills which may be required.

To effectively coach decision making skills a progression should be followed. The progression is from pure technical skill development to intricate decision making skill development. The first step is to have the players gain the technical skill or skills to be used. This can effectively be done in blocked training drills, in which a single skill is performed and repeated, blocked training allows the coach to more easily correct any technical errors, (ie channels drills only rucking), and it allows the players to develop the motor patterns required.

The progression from this stage is to initiate random drills in which a number of skills are required. For example a channels drill in which the players can use either ruck, hit and spin, draw and pass, mini maul etc. The random training is still in a controlled environment in which the players are making decisions randomly rather than due to what is in front of them. Random training is more effective than blocked training for skill acquisition due to the players having to recall how to do the skill each time rather than simply repeating the skill each time.

The final progression is to place the player in a situation that requires him or her to decide which skill will be the most effective given the situation in front of them. Modified games allow the coach to manipulate the environment to ensure particular skills are required and to ensure the appropriate cues are there for the players to read. By

playing modified games players are able to learn specific cues, in a contested situation, which will encourage the desired technical skills and achieve a positive outcome. In this situation the player can not only continue to work on the technical aspect of skill development but also his or her decision-making ability.

The decision making process requires information to be gathered and then interpreted in order to make a correct decision, often under pressure. The difficulty presented to the coach is to ensure that in the pressure situation of a game or contest, the athletes make the correct decisions on which skills to use when faced with the appropriate cues.

Game specific decision-making games not only improve skills under pressure but they also improve decision-making, and a number of other important skills associated with games such as problem-solving, risk-taking, perception and vision, and tactics and strategies (Stimson, 1996). The games can be designed in such a way that the desired coaching objectives are achieved, this is done by adding or subtracting constraints to the game (Charlesworth, 1994). These constraints can include team numbers, field size or shape, direction of passing, time in play or other time restrictions, and any number of variations of the games laws.

Factors Influencing Effective Decision Making.

Response Time

The response time is the amount of time between registering a cue and then reacting to that cue. The response time can be broken down into two components. Firstly the decision-making process which occurs after the cue recognition, and before the appropriate movement begins, and then secondly the time taken to perform the movement from start to finish.

The average reaction time for one possible response after a cue is 0.2 of a second. This reaction time increases at a constant rate as the number of possible responses increase, for example the increase in reaction time from one possible response to two possible responses is the same as the increase in time from two to four possible responses (Pyke,

1991). Therefore the more information to interpret the longer it takes to make the correct decision. This can be used in game situations by presenting opponents with multiple cues and therefore increasing the time for them to make a decision. A common form of this is the 'dummy pass' or 'in and away'. In practical terms by increasing the decision-making time of an defender to 0.4 of a second with a simple dummy you can gain anywhere from 1 to 4 meters (assuming the attacker is moving at between 2m/sec to 8m/sec), before the opponent can execute the appropriate response, ie to get into a position to make an effective tackle.

As stated, response time is directly related to the speed of decision-making. Decision making can assisted by the number of experiences an athlete has had in a particular situation. By having experience and knowledge a player can anticipate a required response (Rushall & Pyke, 1990).

Anticipation

Anticipation is the ability to make early and accurate decisions. Anticipation gives the athlete an ability to 'read the play'. Assuming that the athletes movements are efficient, the way to improve the response time of an athlete is to decreasing the time taken to reach a decision. This can be achieved through anticipation that in a practical sense can simply be to have a good knowledge of your opposition. The ability of an athlete to anticipate a particular action reduces the athlete's reaction time, this occurs due to the athlete already having considered the likely action and making an early decision on his or her subsequent reaction to the predicted cue. This leads to a situation where the correct response to a cue has been decided either prior to, or just as the cue is presented, therefore the response time which is the combination of decision-making process and the physical action is reduced.

Effective anticipation comes from the ability to read the situation and make judgements on the likely actions of the opponents. The ability to read the appropriate cues can come from experience and prior knowledge, this can be achieved by a number of ways including studying opponents, and by replicating game situations at training (Rushall & Pyke, 1990).

Anticipation and speed of recognition, of cues, can be improved by practicing skills in a

realistic or simulated environment. These simulated environments can be modified games that present specific cues, which then elicit the appropriate reaction to the cues. Experience and prior knowledge are major factors in assisting with anticipation.

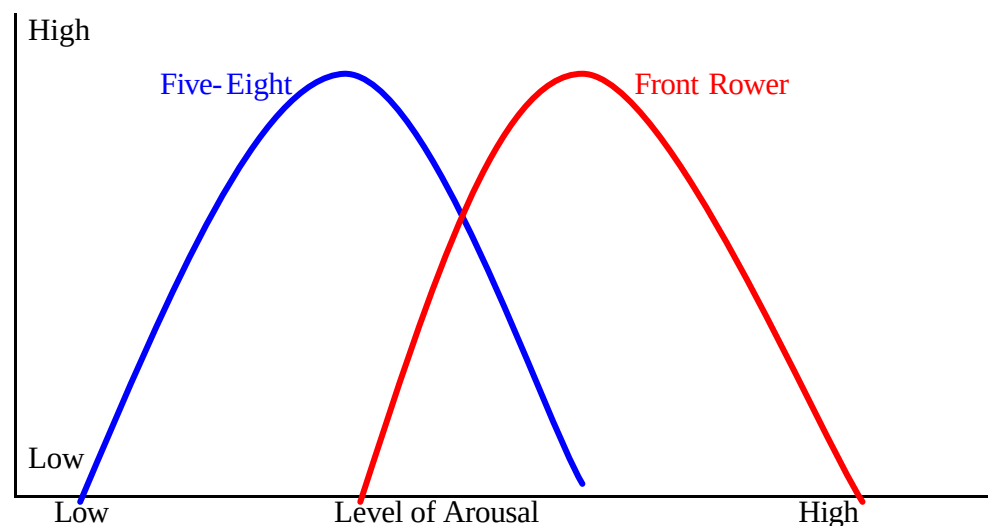
Anticipation can also be used against a player. A common example of this is when a defending player anticipates the attackers pass and moves before the pass is thrown thus taking himself out of the game.

Arousal levels

Arousal levels can also influence the player's ability to effectively make decisions. Players have an optimal level of arousal. The level of arousal required is different for each player often depending on the intricacy of the skills required. For example a five-eight would be better suited to being less aroused than a front rower. This is due to the nature and the requirements of each position, the five-eight can be required to be more tactical and perform finer more precise skills ie kicking, catching and passing and the front rower requires more aggressive and less precise skills such as cleaning out and scrummaging.

Graph 1

Effective Decision Making



The above graph indicates the assumed optimal levels of arousal of both a front rower and a five-eight. The chart is a guide only, actual arousal levels and effective decision-making can vary from individual to individual. All players should be encouraged to find their own ideal level of arousal in which they perform at their best.

Summary

The decision-making process can be improved by innovative and realistic training. To achieve effective decision making the use of games is beneficial. With the use of games the physical and psychological aspects of player development can be met, as well as the motor and cognitive skill development. Rod Thorpe developed Game Sense or decision-making games to replace boring and repetitious drills, to better meet the individuals needs, and to increase players knowledge of how to play a particular sport by improving their decision-making and strategising (Stimson, 1996). Decision-making games improve all aspects of athlete development in a challenging and enjoyable way and are therefore a good tool to be used by coaches.

References

- Charlesworth, R. (1994). Designer Games. Sports Coach. Oct.-Dec. 1994. Pp30-33.
- Pyke, F.S. (1991). Better Coaching: Advanced Coach's Manual. Australian Coaching Council, Belconnen.
- Rushall, B.S. & Pyke, F.S. (1990). Training for Sports and Fitness. Macmillan Education Australia, South Melbourne.
- Schmidt, R. A. (1991). Motor learning and Performance. Human Kinetics, Lower Mitchum.
- Stimson, K. (1996). Game Sense: understanding how to play the game. Aussie Sports Action. Winter, 1996. Pp24-25.