

Science in Coaching

Resource:

Part 1: **Basic Mental Skills for *All Coaching Communities***

Part 2: **Psychological Considerations for Youth (*Middle/Late Childhood and Early Teenage Coaching Communities*)**.

Part 1 supplements CNZ Principles of Sport Coaching Level 1, pp.115-119.

Part 1: Basic Mental Skills

The importance of the “top two inches” is often alluded to by coaches at all levels of sport; however there is seldom any attention paid to developing an athlete’s mental skills. The first step in developing a good mental skills training program is to identify when these skills are particularly important. For many sports there will be common situations, for example pre-competition preparation, where athletes often need to deal with worries and concerns about the outcome and their own ability. However, the importance and nature of mental skills will vary markedly across different sports. For example, the mental preparation of a rugby player would undoubtedly be different from that of a target shooter.

Mental Skills demands of the Sport

One way to identify times when mental skills are especially important is to examine the nature of the sport in question. Clearly there will be different demands for sports depending on whether sports are individual in nature, or team sports. One commonality among sports will be those times when there are breaks in having to perform. These could be due to injury or, breaks that are part of the nature of the game (time between playing periods such as half time), judicial breaks (umpires/referees consulting), or breaks between execution of skills (e.g., in golf, trap shooting etc.).

Sports that involve teams of individuals will require different mental skills for each individual due to the different demands of their specific roles within the team. For example, goalie needs will differ from those who take penalty corners, and roles that are responsible for re-starting a particular phase (e.g., hooker in rugby) will have separate needs. A coach should be able to identify these needs through observation and assessment. The assessment will usually take the form of some form of mental skills profiling. There are many ways this can be achieved, but a coach is usually required to help the individual become self aware of their perceptions of the mental demands placed upon him or her. Once these have been identified, the athlete should be encouraged to examine where he or she is in terms of his or her mental strengths and weaknesses and processes should be put in place to improve those areas that have been identified as needing improvement.

Basic Mental Skills to assist Athlete Performance

While a coach is not a professional mental skills’ trainer, knowledge and understanding of what is required from their athletes in this area will be useful. Coaches can assist their athletes to apply highly effective, basic mental skills. What follows is a brief outline of some of the fundamental skills used in psychological skills training (PST).

According to Hodge, Sleivert and Mackenzie (1996, p. 58) a PST **skill** is a “competency, capability or ability level”, while a method used to develop a skill is a “procedure, technique or drill”. These authors believe that the major mental skills are motivation (for optimal physical activation), self-awareness and self-esteem (for optimal mental activation), and self-confidence (for optimal concentration). The major methods they encourage athletes to use are goal setting, mental preparation, self-talk, centring and relaxation and imagery.

Mental preparation can take the form of three plans for performance, namely:

- Pre-performance
- During performance
- Coping plan

The **pre-performance plan** is all about your preparation for the day of competition and this may include methods such as self-talk, imagery and centring (see below).

The **performance plan** assists you to focus on what is important during the event and this might be divided into different stages of the event. Coaches should set up situations in training sessions that utilise the mental skill required in performance.

The **coping plan** is designed to assist athletes with any hassles or distractions pre, during or post the event. Setting up and discussing potential 'what if' situations as part of preparation for competition will prepare athletes for cope with both the situations discussed and unexpected incidents.

Self-talk is designed to strengthen self-confidence through focusing on the positive and eliminating the limitations of negative thinking. It only requires a limited number of key words to get an athlete focusing on what needs to be done to ensure success. Self-talk for *concentration* or *focus* is assisted by words in the present tense. For example in hitting a tennis ball one might say "bounce" as it bounces and "hit" as the racket makes contact. Hodge, Sleivert and Mackenzie (1996) refer to *mood* words required as in "stroke" in batting and "fire" in a dynamic start. These words capture the mood of successful performance and are dependent upon the nature of the skill being performed. If an athlete requires *sustained effort* with control, key words such as "dig in" or "push through" can be use on a consistent basis to focus on the positive qualities of performance required at the time. It deserves to be restated that all self-talk must focus on positive words that draw the athlete's attention towards that which needs to be done to bring about successful performance.

Centring and relaxation assists an athlete shift his or her thoughts away from anxious negative thinking towards a relaxed, positive, focused mind-set. A simple way of achieving this is through breathing exercises. One breathing exercise is centring, which is breathing that commences from your centre of gravity (behind your navel). This process reduces tension and assists control under pressure through remaining relaxed. The process deserves further reading but in simple terms it requires:

- An at ease standing position or lying with legs uncrossed
- Placing hands on top of each other on the abdomen below the navel
- Focusing on point behind the navel – the power and control centre
- Breathing in through nose, using the stomach and sensing it expand
- Breathing out through the mouth, with the exhalation equal in time to inhalation
- Focusing attention on breathing and a single meaningful word on exhaling
- Progressing from practicing 10-minutes per day to practicing in a time and place that is relevant to the athlete's sport.

Relaxation can also be achieved through other activities such as stretching, listening to music, using positive self-talk or imagery, or having specific routines. Different methods suit different people and at times are used in combination.

Imagery is the ability to create in one's minds eye the people, objects and skills present in a competitive sport situation while not being in the specific situation. It engages all the senses operating in that the specific situation through images that can be seen, felt, smelt, tasted and heard.

For example: *An opening batsman can picture him or herself walking out to the pitch to face the first ball of the cricket match. He/she can see him/herself taking guard, assessing the field placing and settling into his/her stance for the first ball. He/she can hear the umpire call play and see the opening bowler approach the wicket. He/she senses his/her sharpening focus on the rectangle above the bowler's delivery shoulder and he/she sees the ball emerge. He/she can feel his pre-move back and across his/her stumps with his/her weight perfectly balanced. He/she moves his/her head into line and plays a compact, defensive stroke close to his/her body with a vertical bat, the ball striking the very "meat" of the bat. A perfect start.*

And all of this is done during a few quiet minutes sitting in the sun on the side of the field, getting used to the light, after the warm-up is completed

Imagery can be used to control emotions, anxiety and anger while also assisting with the coping of unexpected situations that might arise. Imagery can be used to sharpen concentration, mental preparation and also as a replacement for physical practice. Some people find imagery more difficult than others and being taken through the process by someone skilled in directing imagery is a good way to start. The athlete can then learn to record his/her own imagery script on tape, ensuring that the words embrace all the senses and are vivid and clear. It is helpful to progress from simple skills to the more

complex. Imagery can be applied pre-competition, during competition and even during a pre-performance routine.

Goal setting

The best way to go about improving a skill is to set goals and monitor these goals. Goals provide you with a 'map' to reach your final destination (long term goal) with pit stops (short term goals) along the way. That is, you have your ultimate (or dream) goal but to reach it you must break it down into smaller steps. This serves several purposes. Firstly, it allows you to monitor your progress and thus tell you whether you need to increase your effort or training. Secondly, achieving these short term goals provides you with a reward for your effort and hard work, which in turn increases your confidence that you can achieve the next short term goal and retain your motivation.

Performance, Process and Outcome Goals

People can set different types of goals; these can be based upon pure outcome such as "I want to win a particular race" or "beat a particular opponent" etc. However, outcome goals are usually not under your full control and can be a major source of pressure. Consequently it is usually better to set **process** and **performance** goals.

Process goals are about mastering specific skills such as passing in rugby, turns in swimming or shooting in netball. If you succeed in doing these skills well you will more than likely increase the probability of achieving your desired outcome: winning. Examining the process required to achieve your goals allows you to break your goals down into components or actions and this should form part of your tactical and technical skill development. Combining process goals with performance goals allows you to monitor your progress against yourself, and allows you to *honestly* evaluate your progress. For example, there may be some technical process goals you set yourself to improve a particular skill (such as tackling in rugby). Combining this with a performance goal (to make 80% successful tackles in a game or training drill) allows you to monitor your progress.

Generally, process goals focus on how to do something while performance goals focus on objective success or failure at the task.

SMART goals

Being SMART about goal setting reminds you that your goals should be:

Specific:

Set difficult but realistic positive performance and/or process goals that are clearly stated

Measurable:

Set numeric goals so your progress can be easily measured

Adjustable:

Goals (and goal schedules) may need to be changed due to such things as injury or sickness. Or you may have set goals that were in hindsight too easy or too hard. Also you should review your training methods to see if they are effective and adjust your goals if needed.

Realistic:

Know your limitations, but set goals that are challenging. Setting goals that are too hard sets you up for failure, but they also need to stretch your abilities.

Time Referenced:

Set target dates for achieving your goals. Again these should be challenging but realistic.

Another key consideration to good goal setting is that the goals are **determined and accepted** by both the coach and the athlete. The most effective goals are those that the athlete feels they have ownership for. If you find that your athletes do not seem to be motivated towards achieving the goals that have been set, it may be a sign that they feel that the goals have been forced on them by somebody else, for example, parents, coaches, or team mates.

Monitor your commitment to your goals

Write them down:

Write down your long term and short term goals and your strategy for achieving them. This should include target dates for added incentive.

Remind yourself of your goals

Use a training log book to monitor your progress. Alternatively, use a wall planner as a visual reminder of your goals, target dates and training plan.

Self Analysis

Ask yourself periodically, "what have I done to make myself better?" Monitoring your performance is best done by you, as self evaluation is a critical component of success in all walks of life.

Goal Setting: Things to Avoid

- Setting goals that are not specific, realistic or measurable.
- Setting too many goals at once: keep it simple.
- Not monitoring your progress.

Conclusion

The above represents a very brief overview of some of the techniques used by athletes to improve their mental skills. Like any skill these require practice and athletes should be encouraged to spend up to an hour on developing these skills. Some excellent examples of mental skills training techniques are provided in the additional reading and web sites listed below and in the Science in Coaching module outline.

One useful aid to track mental skills development is to include a log of mental skills training in the athlete's general training diary. Also, when implementing mental skills training, careful consideration should be given to the individual. For example, some individuals may not be good imagers and thus will require more general imagery training. Trying to encourage stereotypical rugby players to learn and apply relaxation techniques may not be well received. For any mental skills training to be effective, it must be accepted by the athlete (and the coach) as a useful tool and it is this acceptance which is often the most difficult to achieve.

Part 2: Psychological Considerations for Youth

(Middle/Late Childhood and Early Teenage Coaching Communities)

Research suggests that childhood and early adolescence is a critical period for the psychological development of the athlete. Specifically, experiences during this developmental age can play a large part in shaping the individual's self esteem and social development. Just being involved in sport does not guarantee psychological benefits. Character development, leadership, and achievement orientations will only occur with the competent supervision of an adult who can structure sessions that provide positive learning experiences.

Not only is this age important in terms of development, it is also the age at which children are most likely to stop being physically active. Thus to ensure that children and teenagers continue to derive benefits from sport participation and sport codes develop a good talent base, particular care must be given to sport provision for this age group. A good start in understanding how to approach dealing with this age group is to consider what motivates them to take part in sport. Research from around the world seems to be very consistent on this matter. Specifically, the primary reason why children (both boys and girls) participate in sport is to have fun. Other reasons that seem to be important motivators for being active are listed below:

Table 4.1.Reasons Children give for taking part in Sport

Boys	Girls
1. To have fun	1. To have fun
2. To do something I'm good at	2. To stay in shape and get exercise
3. To improve a skill	3. To improve my skills
4. For the challenge and excitement of competition	4. To do something I'm good at
5. To stay in shape and get exercise	5. To learn new things
6. To learn new things	6. To be part of a team and make new friends
7. To be part of a team	7. For the challenge and excitement of competition

This information should clearly inform the coach's approach when dealing with these communities. Some of the primary reasons children give for giving up in their sport includes, lack of fun, too much pressure to succeed and dislike of the coach.

On a deeper level the motivators for physical activity presented in Table 4.1 represent an intrinsic psychological need of the athlete to feel competent. Typically, children with low perceptions of sporting competence or ability will more than likely cease participation, whereas those high in perceptions of their athletic ability will continue to participate in their sport. Clearly then the coach needs to set up situations which will promote feelings of competence. This may feel like an impossible task, especially given the reality that some children are just better than others for a variety of reasons.

One way to address this problem is to consider what goals are emphasized by the coach. Specifically, along with goals related to competing and winning the coach should help individuals identify their own self referenced goals: "have I got any better than last time I tried this" which gets the child to focus on developing skills based on their own level of ability and emphasise mastering a challenge. This type of approach helps to develop intrinsic motivation which we know appears to be important in developing the child as a person as well as keeping them involved in sport and physical activity. Other important things to consider are to ensure that the child receives reinforcement when they do things well. A common mistake is to reward only outcome (even if the process of performing the relevant skill was incorrect). A more useful practice is to reward correct technique – even if it does not achieve the exact desired outcome. There will be times when you may need to correct errors (especially for safety reasons) and a good way to keep the child's motivation high is to use what is called the sandwich technique. When using this approach you should sandwich the negative feedback between two positive aspects of the child's performance. Specifically, point out something good the individual did, then provide the information to correct the error, then follow this with another positive comment (further detail on feedback is covered in the Coaching Effectiveness Module).

To summarise, the important things to consider when promoting the development of psychological well being in this age group is to optimize the potential for having fun, to ensure that individuals are given the opportunity for self improvement and that they feel part of a group.

Useful Resources

Roberts, G.C. (Ed.). (1992). *Motivation in sport & exercise*. Champaign, IL. : Human Kinetics.
Smoll, F.L., & Smith, R.E. (2002) *Children and youth in sport: A biopsychosocial perspective*. Dubuque, IW: Kendall/Hunt.