Exploring Sport Psychology’s Growth, Mental Skills, and Applications

An introduction to the mental skills of sport psychology

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Introduction

Sport psychology is a discipline that is increasing in recognition and popularity. It has been previously used primarily by elite athletes but is gaining speed in its applications to all levels of sporting competition as well as general life skills. Sport psychology helps athletes to perform their best by pushing past mental barriers, it is “concerned with the psychological factors that influence participation and performance in sport and exercise and with the psychological effects derived from participation” (Williams, 2006, p. 1).

The skills of sport psychology are easily transferable to both sport and life circumstances such as aiding retiring or injured athletes, guiding large corporations, and equipping professional musicians. Another example of application would be for college students. This group is not only stepping up the level of academic achievement required, but it is also dealing with leaving home, deciding careers, and discovering identity. In order to perform well, college students have to
utilize all mental capacities. The outcome and language may be different for the student, but the general techniques are the same.

There are four primary mental skills that compose the core of sport psychology. These are goal setting, arousal regulation (relaxation), self-talk, and imagery. Along with these main skills there are several other areas of interest and research including motivation and concentration. The objective of this workbook is to provide a basic foundation of sport psychology. The chapters will each cover one of six sport psychology techniques.

This mental skills handout is not meant to be used as a sport psychology text but rather as a means of increasing awareness and usefulness. The overview is intentionally brief and straightforward so as to give the clearest summary. Sport psychology skills tend to layer within each other, but there is a strong attempt to avoid this throughout the handout so as to provide a more basic foundation. Additionally, the skills must be practiced and carefully utilized to increase success rates. Most sport psychologists do more listening and guiding than outright prescription of specific skills. Further understanding is best saved for a sport psychology specific class or referencing one of many texts on the subject.

Goal Setting

“If you don’t know where you are going, you will probably end up somewhere else.”
~Laurence J. Peter

“I don’t care how much power, brilliance or energy you have, if you don’t harness it and focus it on a specific target, and hold it there you’re never going to accomplish as much as your ability warrants.” ~Zig Ziglar

Goals direct action and provide focus (Baltzell, 2009). An individual may have a goal, but if it is not properly formed and committed to there is a greater risk for not obtaining it. There are three categories of goals: outcome goals that focus on the result of an event (winning a game or passing a test), performance goals that aim to achieve a standard of performance usually higher than previously achieved (running a personal best in the mile), and process goals which are geared toward the execution of an action necessary to perform well (following through on a swing). The type of goal developed is dependent on what works best for the athlete or the circumstance. Goals can be long or short term; if a goal is long term, it is best to break it up into
several short-term goals. The analogy of a ladder works well: the rungs are the short-term goals and the top of the ladder is the long-term goal.

The best goals are set using the principles of SMARTS (Specific, Measurable, Adjustable, Realistic, Timely, Self-determined). A goal must be specific so the direction is clear and there is no ambiguity in what is desired to be accomplished. It is important to be able to measure goals so one can know if the goal has been achieved. Adjustability gives the individual an opportunity to tweak a goal to obtain success if it is more difficult or easy than originally planned. All goals must be challenging but still within the realm of possibility. A timeline of some sort is necessary to give definition to the goal. The participant must also be invested in the goal and be a part of determining it. Goal setting can be applied toward sports, academics, health, relationships, or practically any other realm.

Example:

A student has a presentation due at the end of the month that involves researching a topic, writing a paper, and then presenting a power point slide show.

Example 1: “I will finish the research and writing by a week before the due date then work on the power point portion for the last week.”

Example 2: “I will spend one hour on the Mondays, Wednesdays, and Fridays of the first two weeks researching the topic. The second week I will spend two hours Monday, Wednesday, Friday, and Saturday writing the paper. If extra time is needed, I will write for longer on Friday and Saturday. The last week I will complete half of the power point on Tuesday and the other half on Wednesday. This leaves me Thursday to practice and fine tune for the Friday presentation.”

While the second example may seem a bit lengthy and extravagant it will be the easiest to follow. It is very specific (hours on given days), it can be measured (was one hour devoted to the project?), it has built in adjustability, it is realistic (only one hour three days a week), it has a clear timeline, and it is self-determined by the student (the “I”). The final aspect is important because it means the student is already invested and has adequate say in the development of the goal.
Relaxation

“There is good evidence that learning to relax can enhance performance or is part of an effective performance enhancement routine” ~Sherman and Poczwardowski, 2000, p. 49

Arousal regulation “help[s] athletes harness arousal so that it will not become an uncontrollable anxiety response” (Williams, 2006, p. 262). Many athletes find that when they are moderately aroused they tend to have better performances (Williams, 2006). However, the optimal arousal level varies with each sport and by athlete. For example, a golfer requires significantly less arousal than does a football player. Some football players, however, find it best to be very relaxed entering a game but others benefit from being at a high emotional level; more relaxed and calm individuals tend to perform better in instances where arousal is not necessary for enhancing performance (Sherman and Poczwardowski, 2000). No matter the optimal level, it is important for the athlete to be aware of their current state and then have the necessary tools to bring their arousal to the proper point. Relaxation must be practiced on a regular basis. The objective of this skill is for the athlete to have the ability to become aware of anxiety and then regulate it right away, without having to spend a large quantity of time to get to the optimal level.

There are various techniques for regulating arousal. As most athletes tend to elevate to an anxiety level above their optimal functioning, the following skills focus on increasing relaxation. Breathing is an important part of each relaxation technique. It is useful for the athlete to learn how to breathe using the diaphragm as this will best fill the lungs. Once diaphragmatic breathing has been mastered, the athlete can use a ratio skill to decrease arousal. This involves inhaling for one part and exhaling for two parts. As the drill becomes easier, each segment is increased, helping the athlete to control the complete filling and emptying of the lungs. Another arousal regulation technique is progressive muscle relaxation (PR). There are a several forms of PR but one of the most popular is active PR. An example of an active progressive relaxation script can be found on page 11. Breathing and progressive muscle relaxation are both considered body to mind forms of arousal regulation. That is, the relaxation of the body helps the mind to become less anxious. A technique that works from the mind to the body is meditation. This skill can include anything from calm chanting to yoga.
Self-Talk

“The one self-knowledge worth having is to know one's own mind.”
~Francis H. Bradley

“He who would be useful, strong, and happy must cease to be a passive receptacle for the negative, beggarly, and impure streams of thought”
~James Allen

“If [an athlete] fails to focus on the desired goal and instead talks about avoiding the undesirable, the head is merely filled with the negative image…”
~Williams, 2006

Self-talk can be defined as “any self-statement or thought about the self” (Baltzell, 2009). These thoughts are very important because they influence feelings and ultimately behavior. Before an individual can control self-talk, it must first be recognized. Some athletes may not even realize they have this inner dialogue or may not comprehend the magnitude with which it affects their life. Becoming aware of self-talk may take a period of reflection and a conscious focus on the thoughts entering the mind throughout the day. Once one has spent time becoming aware of self-talk, they may find the thoughts to be negative or positive. “Self-talk becomes a liability when it is negative, distracting to the task at hand, or so frequent that it disrupts the automatic performance of skills” (Williams, 2006, p. 356). Controlling the negative thoughts then becomes the task. There are four techniques which may be found helpful for interacting with negative self-talk:

1. Thought stopping – identifying negative thought, stopping the thought, focusing on the task-relevant thought
2. Changing negative self-talk to positive self-talk – coupling thoughts to redirect attention
3. Countering – internal dialogue that uses facts and reason to refute the underlying beliefs and assumptions that lead to negative thinking
4. Reframing – process of creating alternative frames of reference or different ways of looking at the world; viewing with a “different light”

(Baltzell, 2009)

This technique comes with a warning, however. Not all individuals may respond well to focusing on their thoughts. Many athletes already spend a large quantity of time in their head and do not need the added pressures of analyzing. This material is also a very brief coverage of self-talk and
should be embraced merely as a means of introduction to the technique. As indicated in Doing Sport Psychology, “to fix self-talk…without addressing the underlying self-concept, would be like patching the crack in the roof when it is the foundation of the house that needs attention” (Andersen, 2000, p. 74). However, for the individual struggling with doubts or unsure of their abilities, a brief mention of self-talk may help them or encourage them to seek further information.

Examples:

Thought stopping – a tennis player begins to think of all of his weaknesses on the court and immediately heads to a back corner and stomps his foot signaling a stop of the negative and to change focus on the things he is good at; others may literally hit their hand to their head to stop the negative thoughts

Changing negative self-talk to positive self-talk – a student may think “you dummy” to themselves after an incorrectly answered question but they could couple it with “Ease off. Everyone makes mistakes.” (Williams, 2006)

Countering – a high jumper may be unsure of their ability to clear a height without scratching but remembers the multiple times when the height has been cleared with ease in practices

Reframing – a student may be say “I’m feeling tense and anxious about [this presentation]” and then reframe the statement to “I’m feeling excited and ready” (Williams, 2006)
Imagery

“The product of image makers.” ~Miriam-Webster’s 11th Collegiate Dictionary

Imagery can have many benefits for the athlete. It can give them a place of calm for retreat, it can increase their confidence in competing, and help them find a way to master a skill. Imagery, also referred to as visualization, involves creating a script of an experience that includes all of the senses and emotions in a task. The more realistic a script and the greater the time spent practicing it, the more effective this technique will be. While visualization has many applications for everyday life, there are also many uses in the sporting world of which future physical therapists and athletic trainers should be aware.

Athletes push their bodies everyday trying to get better, faster, and stronger. Imagery becomes useful for the individual who requires enhancement of a specific skill but can only devote a limited physical time for that skill. It is also a great tool during practice prior to the performance of a task. By going through the motions, feelings, sights, sounds, and all other aspects in addition to the actual practice, a skill can be rehearsed many times more.

Imagery is also very useful for injured athletes. An athlete recovering from being hurt may begin to doubt their abilities or lose valuable training time. One way to increase confidence and ease the transition back to the sport is to incorporate visualization into the rehabilitation program. If an athlete is able to rehearse their skill set in their head and see themselves performing well or as they did prior to the injury, it may help them achieve their previous state of performance faster. It can also be a great opportunity to work on a technique the athlete can continue to utilize even after recovery.

Examples:

A golfer tore his rotator cuff. He cannot play for the duration of the healing process. This golfer was having problems in consistently driving the ball. Instead of spending the time worrying about how much worse his drive might be, he can visualize a proper swing. He can go through the entire routine before a drive, visualizing his feet correctly aligned and his hands gripping properly. He can walk through each second of the drive focusing on the placement of his head, shoulders, arms, and legs. The golfer can imagine how the club feels, how his body is oriented, how a good drive sounds, and how a course smells. The golfer can practice his swing while injured and perhaps correct some previously unrecognized errors.

A runner has broken her foot and is undergoing a lengthy recovery. She is unsure of her ability to succeed upon her return. She may find it useful to imagine herself as through a video camera. She could be on the track, hearing the crowd, feeling the give of the ground beneath her spikes, and smelling the turf and rubber. The runner could visualize a pack of girls entering the last 100 meters, herself in third place. She could see a grin on her face, a determined gleam in her eyes, the bulge of her muscles as her legs propel her forward with strong steps. The athlete could see her smooth stride as she overcomes second and heads for first. She could see her sweat but also hear the quick but steady breathing. By thinking through a race scenario, the athlete may gain confidence and reassurance.

Concentration

“Concentration is the ability to focus one’s attention on the task at hand and thereby not be disturbed or affected by irrelevant external and internal stimuli” (Williams, 2006, p. 404). For athletes, concentration is a necessary and valuable technique when learning a new skill, practicing, or competing. In order for an athlete to increase their ability to concentrate, they must
first be aware of the things that cause problems such as attending to past or future events, choking under pressure, fatigue, and inadequate motivation. Some of these problems, such as attendance and choking, involve active correction. Fatigue and motivation may perhaps require increased acknowledgement of the dilemma before a possible solution is achieved. There are several strategies to minimize distractions and the barriers sometimes determine which might work best.

The first strategy is attentional cues and triggers. These help athletes “center their attention on the most appropriate focus within the task at hand and thus help them to avoid distracting thoughts and feelings” (Schmid, 1982 as cited in Williams, 2006, p. 412). The cues should be positive and present and process oriented. They should be available in some way and time that retriggers concentration. The second strategy for concentration is TIC-TOC. A TIC is a thought that is not task relevant. It should be immediately recognized and replaced with a TOC, or a task relevant thought. Another strategy is the act of turning failure into success. This strategy forces the athlete to not concentrate on the distraction of a mistake but instead ruminate on the actions necessary for a success. A fourth technique entails increasing focusing and refocusing skills. These can be augmented by practices such as meditation or one pointing (dwelling only on a thought and always returning to it if other thoughts occur). A final strategy is developing protocols. This method involves going through the same routine prior to a task that requires concentration. This cues the mind to concentrate and allows it to focus faster and easier.

Examples:

A diver is preparing for a dive when she starts thinking about dinner plans (TIC). The diver realizes this is not helpful to diving and begins to think through her next dive technique (TOC).

A student is having problems staying concentrated throughout an entire class period. She begins practicing one pointing ten minutes every day. At the end of a week she is able to stay focused on the class for five minutes longer than usual.

Intrinsic Motivation

“Passion: a powerful force that cannot be stopped” ~Moliere

There are three categories of motivation: amotivation, extrinsic, and intrinsic. Amotivation constitutes a lack of reasoning for doing an activity; there are no internal or external contributors. Extrinsic motivation involves the performance of an activity to attain some separable outcome (Baltzell, 2009). The rewards of social involvement, material goods, or avoidance of an undesirable are the reasons for engaging in the activity. An individual is intrinsically motivated if participation is based solely on the inherent satisfaction of the activity. This type of motivation is based on the inherent tendency to seek out novelty and challenges, to extend and exercise one’s capacities, to explore, and to learn (Ryan and Deci, 2000). An activity may not be enjoyable, but it can still be chosen intrinsically.

“Intrinsic motivation is associated with positive affect and maximal engagement” (Vallerand and Losier, 1999 as noted in Williams, 2006, p. 64). It is further believed that “it is most unlikely that athletes…would be able to sustain high levels of commitment throughout their
careers if they did not have high levels of intrinsic motivation for engaging in their sport, particularly during periods of adversity, duress, and poor performance” (Williams, 2006). Intrinsic motivation is a powerful skill to possess.

This is a good skill to help athletes realize and remember why they compete. Are they interested only in the glory of winning? Do they participate in sport for the love of the game or as a means of staying in shape? What is their purpose in sport? By noting the categories of motivation, particularly the intrinsically motivated responses, athletes may more completely understand their passions and perhaps reevaluate their priorities in life. A life well lived is a satisfied, passionate life.

Example:

A student is on the pre-med track and taking all of the science classes medical schools require. He is obtaining average grades and doing the minimal of work to get by. After his freshman year, he realizes he was only planning on medical school because that was his mother’s dream for him. He switches his major to English literature his sophomore year and begins to thrive. He attends conferences, tutors, and participates in all class discussions. He allowed himself to major in an activity he does for the sake of it.

A cross-country runner joined the team to be able to hang out with his friends but quickly fell in love with running. Now the runner is happy to run the long courses and reminds himself that he loves the strong feeling in his legs as he completes hill repeats. He is not the fastest, but he enjoys the sport so he keeps participating.

Relaxation Script

The following is an example of a progressive muscle relaxation script taken from Applied Sport Psychology: Personal Growth to Peak Performance (Williams, 2006, pp. 293-294). It may be easier for some to reach fuller tension if they try to make their muscles like a rock and then limp for relaxation. Participants should be encouraged to fit the wording to their preferences. This script should take about ten minutes.

“Sit or lie down in a comfortable position and try to put yourself in a relaxed state. Close your eyes and take a long, slow, deep breath through your nose…then exhale slowly and completely, feeling the tension leaving your body. Take another deep breath…relax as much as possible…remember not to strain to relax. Just let it happen. During the session, try not to move any more than necessary to stay comfortable. Particularly, try not to remove muscles that have already been relaxed.

As we progress through each of 12 muscle groups, you will first tense the muscle group for approximately 5 to 7 seconds and then relax for 20-30 seconds…

Begin with tensing the muscles in the dominant hand and lower arm by making a tight fist and bending your hand back at the wrist…feel the tension in the hand and up into the lower arm…relax by simply letting go of the tension…make another fist…relax. Just let the relaxation happen by stopping the contraction; don’t put out any effort…

Next tense the muscles of the dominant upper arm by pushing your elbow down against the floor or back of the chair…feel the tension in the biceps without involving the muscles in the lower arm and hand…release the tension all at once, not gradually. Just let it happen. Let it all
go…tense now…release it…relaxation is no more than the absence of tension.  [Perform same technique with opposite arm and hand.]

Turn your attention to the muscles in your face.  Tense the muscles in your forehead by raising your eyebrows…feel the tension in your forehead and scalp…relax and smooth it out…[tense again]…allow your forehead to become smooth again…

Next squint your eyes very tightly and at the same time pucker your lips and clinch your teeth…feel the tension…relax…let the tension dissolve away…tense again…let all the tension go…your lips may part slightly as your cheeks and jaw relax.

Next tense the muscles of the neck and shoulders by raising your shoulders upward as high as you can while pulling your neck down…relax.  Drop your shoulders back down and feel the relaxation spreading…let go more and more…tense…relax.

Next tighten your abdomen as though you expect a punch while simultaneously squeezing the buttocks together…relax, release the tension, let it all drain out…tense again…relax.

Turn your attention to your right leg.  Tighten the muscles in your right thigh by simultaneously contracting all the muscles of your thigh…try to localize the tension to only your thigh…relax…tighten the right thigh again…release the tension – just passively let it drain out…

Next flex your ankle as though you are trying to touch your toes to your shin…relax.  Simply release the tension…tense again…slowly release all the tension…

Next straighten your legs and point your toes downward…relax deeper and deeper…[tense again]…release all the tension…  [Perform same technique with opposite leg and foot.]

Relax all the muscles of your body – let them all go limp.  You should be breathing slowly and deeply…you may notice a sensation of warmth and heaviness throughout your body, as though you are sinking deeper and deeper into the chair or floor…

Before opening your eyes, take several deep breaths…stretch your arms and legs if you wish.  Open your eyes when you are ready.”
References


