The P.A.C.E. Performance Program: Integrating Sport Psychology into Training Programs
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P.A.C.E. (Perception, Activation, Concentration, Execution)
Following Team USA’s successful performances at the London 2012 Olympic and Paralympic Games, coaches and athletes are already preparing for their upcoming season of competitions. What are the next steps to take in readying your athletes for performance excellence? After competing in the Olympic Games, athletes have consistently reported that, for their next Games experience, they would: a) focus more on sport psychology and mental preparation; b) avoid overtraining/under-recovery and get more rest; c) work with their coaches to optimize their physical training/preparation; and d) find ways to be better prepared to deal with distractions (Gould, Greenleaf, Guinan, Dieffenbach, & McCann, 2001; Gould, Greenleaf, Chung, & Guinan, 2002). The P.A.C.E. performance program addresses these concerns by enabling coaches to enhance their athletes’ psychological skills at the same time they are improving their athletes’ physical, technical, and tactical sports skills. Incorporating the P.A.C.E. performance program into the periodized training schedule can help your athletes peak for performance by training them to focus on the right things, at the right time, every time.

Each of the elite coaches I’ve been fortunate to work with incorporate aspects of sport psychology into their training programs, though they may refer to this type of training by many different names. The P.A.C.E. performance program was designed with these coaches in mind, as a simple acronym to organize and teach psychological skills during training. P.A.C.E. refers to “Perception, Activation, Concentration, Execution”. While each of the P.A.C.E. components can be worked on individually, I present the program to coaches as an ordered sequence, to provide a simple and comprehensive overview of psychological skills training for performance excellence. While every sport is unique, I think this model can be flexibly applied to many different sport disciplines. Each of the program components will now be described, and then ways to integrate this model into training are explored.

P.A.C.E. program components:
Perception refers to an athlete’s thoughts, feelings, imagery, and self-talk about his/her:
• Technical and psychological skills (e.g., emotional control, coping, etc.);
• The performance environment;
• The goals the athlete wants to achieve (i.e., outcome and performance goals; Roberts & Kristiansen, 2010).

The athlete’s perceptions (e.g., appraisals, attributions, and their effect on motivation) serve as antecedents for emotion. Athletes experience (and subjectively interpret) a range of pleasant and unpleasant emotional states, in which changes in physiological activation and accompanying action tendencies are often the most tangible indicators of internal emotional status (Vallerand & Blanchard, 2000).

Perceptions are therefore clearly linked to Activation (physiological arousal), which exists along a continuum of deep sleep to extreme excitation (Weinberg, 2011). Emotion-related activation can be tracked by assessing the athlete’s Individual Zone of Optimal Functioning (IZOF). The IZOF represents
the emotional experiences related to successful or poor performance (Hanin, 2000; Cohen, Tenenbaum, & English, 2005). Once determined, the IZOF is attained through use of emotional regulation skills (e.g., coping, mindfulness) as well as energy management skills - relaxation and activation - to achieve the desired level of physiological activation for performance. Finding the appropriate activation level is essential, not only for maximum energy availability, but also due to the effects of activation on concentration. For example, as physiological activation increases, attentional capacity often decreases (Moran, 2004). Further, anxiety and physiological arousal can affect visual attention, altering the way athletes identify and process visual cues (Janelle, 2008). In essence, if an athlete’s activation level increases above his or her IZOF, it may cause inappropriate attentional focus and poor decision making (Weinberg, 2011). Since appropriate attention allocation cannot be overstated in determining performance outcome (Janelle, Coombes, & Gamble, 2010) athletes and coaches must be aware of the influence of activation on concentration.

Concentration is the athlete’s ability to exert deliberate mental effort on what is most important in any given situation (Moran, 2011). Athletes need to selectively attend to relevant information and ignore potential distractions, while coordinating several simultaneous actions. It is therefore critical for coaches to create an environment in which athletes learn how to adjust concentration at will and know what to focus on at the correct time.

Distractions can be particularly performance impairing for elite athletes because of the automaticity of their skills. Because these athletes have largely automated their technical skills as a result of extensive practice, they tend to have extra mental capacity available to devote to other concurrent tasks – thereby increasing distractibility (Moran, 2011). It is clear, then, that concentration has a definite impact on skill Execution. Each of the P.A.C.E. components is integrated into the athlete’s Performance Plan, comprised of the specific thoughts, words, images, feelings, and behaviors developed for competition, including mental, physical, and technical strategies.

With this sequential P.A.C.E. model in mind, the following examples illustrate how proper use of well-practiced psychological skills can enhance performance, while lack of disciplined training in this area can impair performance or contribute to inconsistency. Imagine an athlete minutes before competition, going through his or her pre-competition routine. The hard work and training has been done, yet a number of unpleasant thoughts appear, unexpectedly: “What if I’m not ready? What if I’m not good enough?” Breathing becomes shallow, muscles tighten, heart rate climbs…and the athlete’s focus is inappropriately divided - directed to improper cues. Rather than staying with the process of competing, the athlete is now trying not to lose, concentrating on all of the things that could go wrong. Clearly, this is not the most helpful path to executing the performance plan. Now let’s consider an alternate example, in which more adaptive perceptions lead to the appropriate amount of physiological activation, allowing the athlete to focus on task-relevant cues. As part of the pre-performance routine, the athlete mindfully acknowledges any unpleasant thoughts or feelings, and then, through extensive practice in letting them go, calmly returns to the thoughts, images, and self-statements that are connected to the ideal pre-performance activation level. This in turn allows for flexibility in focus, as the athlete notes and discards distractions, concentrating only on the simple keys that facilitate execution of the performance plan. The perception in this scenario may be something like, “The outcome I want is ________, and the best way to get there is to keep it simple. All I have to do is focus on the process of performing.” This more adaptive perception leads to effective breathing, primed (but not tight) muscles, and
a heart rate zone that is tuned to this particular performance. The plan is clear in the athlete’s mind, allowing for any necessary adjustments (re-focusing) in response to varying competition conditions.

The easiest way to integrate the P.A.C.E. model is to think about areas of the training plan that present opportunities to practice psychological skills. Check in with your athletes’ perceptions of their technical and psychological skills and see if they’re adaptive or unhelpful. Briefly discuss the specific, challenging goals you and your athletes want to achieve for each practice session. These goals may be to improve power, endurance, strength, technique, strategy, emotional control, etc., depending on the periodization phase and proximity to competition. To monitor perceptions about the performance environment, use competition simulation for “practicing under pressure,” with an emphasis on thoughts, feelings, and self-talk designed to increase consistency during competition.

Assessing activation level can be accomplished subjectively and objectively. Use of heart rate monitors can provide a crude indicator of physiological arousal, as can asking your athletes to rate their energy level on a scale from 1-10 (similar to assessing rate of perceived exertion, or RPE). It doesn’t require much time to raise your athletes’ awareness about their activation level and the relaxation or energizing skills needed to adjust it.

As a coach, it was often easy to see where my athletes were sending their focus, simply by observing body language. These behavioral observations provided an opportunity to ask the athlete about his or her concentration, and to offer guidance in adjusting attentional control as needed to maintain focus on important performance cues. Since focus can be internal, external, narrow, or broad (Nideffer, 1990), athletes must be able to train their concentration skills in each of these areas. For example, leading up to a competition, an athlete may go through a progression similar to this:

1. **Broad-External**: Assess the environment and the competition.
2. **Broad-Internal**: Recall individual strengths, review the performance plan.
3. **Narrow-Internal**: Monitor arousal level, mentally rehearse process skills.
4. **Narrow-External**: Focus on a good start, simple cues or keys that make performance automatic.

Competition simulation presents an excellent opportunity to practice concentration and re-focusing skills while implementing a performance plan. This brings us to the last phase in the P.A.C.E. model: execution.

Have your athletes think about the performance plan they used in their best performances. Deliberate practice and disciplined preparation helped them to trust this plan and commit to it before and during competition. A simple and comprehensive plan should address pre-competition; warm-up; competition; any possible distractions before, during, and after competition; and post-competition performance evaluation. The performance plan is a purposeful mental and physical routine that helps athletes to consistently perform at the top of their ability.

The performance plan should be simple and clear. To consistently deliver excellent performance, athletes must monitor their perceptions, regulate activation level, and adjust concentration to execute their plan. In the weeks and days just prior to important competitions such as world championships and Olympic and Paralympic Games, athletes sometime believe they need to change things to achieve success. This is when coaches must emphasize that their athletes don’t need to do anything differently or more than they’ve
already done. Confidence during competition occurs when athletes trust their preparation and training, focusing on execution of learned skills.

Coaches are ideally positioned to incorporate aspects of sport psychology into training, complimenting physical, technical, and tactical skill acquisition and maintenance. The P.A.C.E. performance program is designed to help coaches create an optimal learning environment that allows for repetition of these skills, making it easier for athletes to automatically execute their performance plans, and increasing the likelihood of consistent performance excellence.

References


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