

Coaching Movement Effectively

Introduction

Effective coaching means enhancing a client's performance, and an effective coach will need to use multiple tools in order to elicit these improvements. Two essential skills that a coach must have are the ability to give instructions and the ability to give feedback.

Instructions provide guidelines as to how to perform a specific task. Feedback serves as a basis for correction of errors and guides the client to the correct movement. Both are critical to effective learning.

We have all encountered situations where our instructions and feedback do not have the desired effect and may even result in a decrease in performance. It is therefore important to analyse how we give instructions and feedback and the resultant performance changes they elicit, in order that we understand better how to communicate with our clients.

This article looks at the role of 'attentional focus' in providing effective instruction and feedback, as well as considering how we can enhance our provision of both by taking a different approach to the way in which we convey information.



Attentional focus explained

In some traditional forms of coaching, instructions and feedback are phrased so that attention is drawn to 'internal' requirements of the movement/skill. I.e, body parts are associated by the coach with a particular movement, and thus the movement is broken down with attention given to the activation of specific muscles. This type of coaching normally involves a wide range of aspects such as information on muscle actions, weight distribution, joint positions etc., with the focus being on how to carry out and control movements.

However, a growing body of evidence is developing that suggests an internal focus may actually compromise learning and performance. Instead, it is suggested that an 'external focus', (where focus is placed outside of individual parts of the body and more towards whole body movements), results in higher levels of both learning and performance.

It has been suggested that any use of internal focus only makes sense in the initial stages of learning, when the motor composition of the skill is being learned. Beyond this stage, external focus should predominate, with meaningful corrections being made on a whole-body basis.

Execution, not break-down

It would appear that, if already-skilled performers direct their attention to the details of skill execution, the result will actually be a decrease in performance! In this way, instructions and feedback that result in an athlete taking an internal focus can be to the detriment of skill development. Approaches where internal focus is actively encouraged may be at odds with the optimal way of learning and the optimal way of performing.

External focus, where the focus is directed outside of the body, appears to provide a much more optimal environment for skill learning. The advantages of an external focus of control have been demonstrated time on time again. These advantages have been shown to be both immediate and long-standing and are also present under conditions of stress or distraction, just as is required in sport. Additionally, as movement complexity increases, the advantages gained from an external focus also increase. Recent studies suggest that the benefits of an external focus extend across all client ability levels, and that beginners should also be encouraged to take more of an external focus.

Why does internal attention reduce performance?

Effective movement capacities need to be optimally coordinated by the nervous system, with the potential degrees of freedom effectively controlled. Conscious attempts to control movements interfere with autonomic motor control. An internal focus freezes the degrees of freedom, thus inhibiting movement execution by inadvertently disrupting autonomic processes. This results in movements that are often less fluent and less efficient. This process is termed the 'constrained action hypothesis'.

TRAINERMAKER

However, focussing on the remote effects of the movement allows the motor control systems to self-organise more naturally, unconstrained by conscious control. When the focus is external, the body is free to organise movements and will naturally do this in the most efficient manner, helping movements become more fluid, effective and ultimately autonomic. Here, unconscious, fast and reflexive processes control the movement with the outcome achieved almost as a by product.

Why is this important in fitness/S&C?

The majority of studies into the optimal focus of attention have been on sports skills, but the results have important implications for fitness/strength and conditioning. Within these studies, skilled performers have been found to make higher frequency movements as well as lower amplitude movement adjustments than non-skilled performers (ie, less drastic changes). These skills are equally pertinent in fitness/strength and conditioning settings, especially where elements such as agility or the application of force are looked at.

External focus promotes the utilisation of a greater number of feedback loops, which by working at an unconscious/autonomic level, are faster than those used by the conscious (and therefore slower), feedback loops utilised by internal feedback. In this way, external focus can result in faster movements than an internal focus, and fosters these lower amplitude postural adjustments (ie less drastic movement correction).

It also needs to be noted that maximum force is also modulated by inter and intra-muscular coordination, and an external focus has been shown to increase functional force application. In a number of studies, while force outputs increased, EMG (Electromyography – a measure of muscle ‘excitation’) levels were shown to decrease, reflecting an increased efficiency of movement. Thus, internal and external feedback results in different control processes, and can directly affect the speed, force and efficiency of actions.

An external focus can result in more effective movement outcomes, greater frequency of movement adjustments, reduced attentional demands and greater movement efficiency.

At what level should the focus be?

External focussed instruction and feedback appear to have significant advantages over internal focussed feedback and instruction. The coach then needs to evaluate at what level of focus to pitch their feedback and instruction. Actions should always be controlled at the highest possible level – only breaking a movement down if essential, thus allowing an athlete to take advantage of all available motor programmes that automatically control movement. The optimal attentional focus will depend upon the client’s expertise. At expert level, this should focus on the ultimate effects of the movement, whereas for novices, this may require focus on a lower-level instruction or feedback.

TRAINERMAKER

An example...

During direction change drills at a novice level, an appropriate external focus could be on encouraging the athlete to push away at the floor. However, at an advanced level, attention should be more on the resultant motion, such as the lateral distance achieved. Ie, in the first instance, you may use a cue such as 'plant the outside foot down and push away'. Whereas in the second instance, you may not coach the movement at all, but instead, focus on timing the drill for speed improvements.

It is important to note that this attentional focus will not always happen intuitively, and a coach will need appropriate levels of feedback from the client to optimise the communication. At the elite level, focussing on too low a level of effect can ultimately hinder performance development.

Providing an external focus

Effectively worded instructions and feedback can themselves induce an external focus of attention, by directing attention to the movement effect rather than on the movement itself. In this way instruction and feedback is not only informational but also can be used to develop an effective external attentional focus.

With subtle changes in language, coaches can develop effective instructions and feedback that provide an external focus. These should focus on the movement outcome rather than the performer's movement co-ordination.

For example...

In the Olympic lifts, focus during the first pull could be on the movement of the bar, rather than on the internal actions that produce this movement. Where an external focus is more difficult, analogies and metaphors can provide clients with pictures of the skill, which can in turn draw their attention from an internal focus to an external focus. In this way a coach can develop a number of coaching analogies to use in different coaching environments, all of which encourage an external focus.

In Summary

1. Observe your client first to see if a movement really needs to be broken down
2. If a movement does need to be broken down, do this at the highest level possible.
3. If you must break down at lower levels, then try to use analogies to paint a picture
4. Don't regurgitate cues out of habit. Less is often 'more'