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Systematic Observation : Helping You Coach More Effectively

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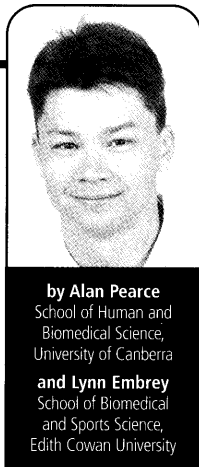
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Systematic observation: Helping you coach more effectively



Have your athletes reached a plateau? Despite everything you do and say, the improvements are minuscule? Perhaps then, it might be time to not only look at the athletes but also yourself. During every training session you constantly monitor your athletes' training behaviour, their fitness, skills and tactical abilities and give them feedback to improve themselves. But do you monitor yourself as closely? And if not, why not? By helping your own coaching behaviour you're ultimately helping your athletes. This article aims to give you some ideas to get you thinking about improving your own behaviour. The methods are time tested and have assisted coaches in numerous sports (Table 1) around the world to improve their coaching.

Systematic observation

Systematic observation is a technique in monitoring coaching behaviour applied from physical education research of the 1970s (Seidentop and Tannehill, 2000). It allows the coach to observe and record behaviours of the coach during the training session. The information can then serve as a basis to obtain feedback for the coach and plan improvements for future coaching sessions.

So how does the coach observe and measure his or her own performance?



Table 1: Examples of sports and the level of coaches who have participated in systematic observation studies (Modified from Kahan, 1999).

Sport	Level(s)
Archery	Elite
Baseball/Softball	Junior*/School#
Basketball	Junior/School/University/Elite
Gymnastics	Junior/Elite
Football (AFL/Rugby/USA)	Junior/School/University
Ice hockey/Field hockey	Junior/School
Soccer	Junior/School
Swimming	Junior
Tennis	Junior/School
Volleyball	School/University

* Junior refers to non-school sport.
School refers to sport conducted during school time (primary and secondary school)

There are four 'tactics' (methods) that the coach can use. These tactics can be used in isolation or for a more effective observation strategy the tactics can be combined. Table 2 shows the four tactics that a coach can use. Each tactic has a number of variables that the coach can use depending on what he/she wishes to measure. Although the ideal situation is to measure as much as possible, sometimes it is better to limit your observations to what is most appropriate at that time. Table 3 illustrates some realistic examples where a coach can use systematic observation to help him/her address a problem, and Table 4 shows examples of measurable coaching behaviours and events that can occur in a training session.

So where do I start?

Using systematic observation is a coaching skill, just the same way as you need to learn how to periodise training programs properly or to observe an athlete's performance. Van der Mars (1989) has outlined six steps that you need to take. However, the process is simple:

1. Decide on what you want to observe — for example, the number of times you mention the names of the athletes; what type of feedback (positive/negative) you give; how long it takes for you to change drills; or how many of your athletes are actively engaged during a practice drill.
2. Develop definitions for the behaviours to be observed — so that others know exactly what you are looking at, particularly when you are asking for their thoughts and opinions.

3. Select the most appropriate tactic(s) — deciding on what you want to observe will influence the most appropriate tactic. For example, if you decide to look at the number of times you give feedback (and what type it is) then event recording is the most appropriate. If you are concerned about how many athletes are not on-task during a drill, then momentary time sampling will be the most appropriate. In some cases you may need to use two types of tactics such as event recording and durational recording.

4. Establish observer reliability — there are two methods a coach can use. Intra-observer reliability, where you observe the video of yourself twice on two separate occasions; or inter-observer reliability where at least two observers crosscheck their observations. It is simply calculated as such:

$$IOR = \frac{\text{agreements}}{\text{agreements} + \text{disagreements}} \times 100$$

The standard required for intra/inter observer reliability (both termed IOR) is at least 80%.

5. Make the observation — nowadays with videocameras being readily accessible observations can be made quite easily. Analysis (particularly for verbal instructions) can be made easier if you have someone to follow you around with a video rather than having it in a fixed position. However, make sure that the cameraperson knows exactly what you want videoed and that the camera stays on you and your coaching, not on the athletes doing their drills (unless of course you are analysing the number of athletes on/off task). If you do not have access to a video, your observer should be close enough to hear your instructions, and if you have two observers, ideally they should sit apart. Another alternative is to use an audiocassette recorder in a bum bag preferably with a small external microphone clipped to your collar.

Table 2: Systematic observation tactics available to the coach. (Modified from van der Mars, 1989).

Event Recording Report by	Frequency of occurrence of a discrete event eg positive feedback Frequency, number of instances (if observation length is constant between sessions) Rate per minute (if observation length differs between sessions)
Durational Recording Report by	For events that last for extended periods of time eg practicing a skill Time (minutes and seconds) Percentage of total time
Interval Recording Report by Notes	Occurrence/nonoccurrence of a behaviour in specified time intervals eg five second intervals Number of intervals Percentage of intervals Behaviour is only recorded as occurring in the interval not how many times in the interval
Momentary Time Sampling Report by Notes	Observation at the end of set time interval eg end of every five minutes Percentage of total intervals Often used to scan the squad to see how many athletes are on or off task

6. Summarise and interpret the data — depending on your observation tactic you will express the data in terms of numbers of events per minute or as a percentage of the observed time. Keep the summaries objective. You can always put the data into context (who you are coaching, what time of the training year it is etc) when reflecting upon your results.

Final thoughts

Systematic observation is an effective tool in improving your coaching. Motivated coaches should embrace this coaching technique just as they do for other aspects of coaching, such as planning and skill analysis. However it does take practice. It is fine to begin with just one of your behaviours, such as the number of times you use an athlete's name or the number of times you give positive feedback. Very quickly you will find that you can monitor several behaviours together such as names, positive feedback and negative feedback. Just like making your athletes practise drills over a number of sessions, you should also allow a number of sessions (say three or four) to make yourself comfortable being videotaped. This also has the advantage of establishing your consistent behaviours; not just one offs that may be a result of being self-conscious.

A good resource to get you started is *Video Self-Analysis* published through the Australian Sports Commission. It's simple and easy to understand to get you in the right direction for self-evaluation of your coaching behaviours. If you are motivated as a coach and care for the improvement of your athletes then don't be afraid of the potential this technique has for improving your coaching.

References

- Bunt, B. and Layton, R. (1996). *Video self-analysis: A lens on coaching*. Australian Coaching Council: Canberra
- Kahan, D (1999). Coaching behaviour: A review of the systematic observation research literature. *Applied Research in Coaching and Athletics Annual*. 14:17-58
- Seidentop, D and Tannehill, D (2000). *Developing Teaching Skills in Physical Education* (4th Ed.) Mayfield: Mountain View Ca.
- van der Mars, H. (1989). Systematic observation: An introduction. In P. W. Darst, D. B. Zakrajsek & V. H. Mancini (Eds.) *Analyzing Physical Education and Sport Instruction*. (pp. 3-18). Champaign, IL: Human Kinetics.

Table 3: Practical examples that systematic observation can help a coach become more effective.

Example 1	
A netball coach is consistently finding that she runs out of time to complete all the programmed drills, even though in her training plan, she has timed the drills and the rest breaks thoroughly.	
<i>Tactic to use</i>	<i>Items to be measured (observed)</i>
Duration recording	Management time Instruction time Athlete activity time
<i>Reported results</i>	
Percentage of time over the entire time Eg Management time measured a total of 27 mins even though the coach had only programmed 20 mins of time for changeover of drills. Activity time was	
Example 2	
A tennis coach is puzzled why the junior male players lose concentration quicker than the junior female players despite the perception that equal attention is being given to both groups.	
<i>Tactic to use</i>	<i>Items to be measured (observed)</i>
	Event recording use of names type of feedback
<i>Reported results</i>	
Frequency tally, ratios can be used if comparing results Eg Girls' names to boys' names ratios were found to be 3:1; also ratio of positive feedback to negative feedback was found to be 2 positive to 1 for boys, whereas the girls it was found to be 5 positive to 1 negative.	
Example 3	
A soccer coach wants to know how he truly reacts when his players are not successful at completing a tactical drill.	
<i>Tactic to use</i>	<i>Items to be measured (observed)</i>
Event recording	Type of feedback — specific/general and/or positive/negative
<i>Reported results</i>	
Ratio of specific feedback to general feedback was low — 1:6. Most feedback remarks were not focussed on the specific aspects of the drill and questions were rhetorical in nature (eg 'Okay that was good' or 'What's going on?') Ratio of positive to negative feedback was 4:1, which is good.	

Table 4: Examples of variables that can be used to assess coaching behaviour.

Event Recording	Duration Recording	Moment Time Sampling
Sum of instruction	Pre-instruction	Athletes engaged
Questioning	Concurrent instruction	Athletes non-engaged
General feedback	Post-instruction	
Specific feedback	Management	
Positive reward	Silence	
Negative/scold re instruct	Ratio of attention	
Non-verbal reward		
Non-verbal punishment		
Use of names		