
PSYCHOLOGY IN LAWN BOWLS

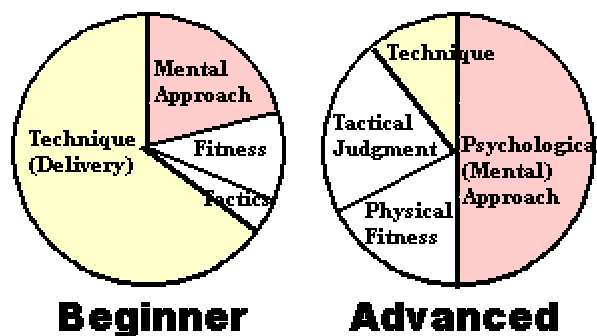
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Mental Factors

Elements of Bowling Skill

The main skill areas of lawn bowling are delivery technique, game tactics, physical fitness, and psychological approach. Delivery technique, as the name implies, simply means the body movements involved in delivering jacks and bowls. Game tactics include game planning, head reading and shot selection. Physical fitness and good health are minimal requirements for success in any sport. The concepts of the two T's (technique and tactics) are highly sport specific. On the other hand, the concepts of the two P's (psychological and physical) are not particularly sport specific and apply to most other areas of daily life.

When lawn bowling champions quote the causes of their successes, they typically give most of the credit to their mental approach. Such beliefs are well founded and sincere. To some extent, this weighting somewhat negates the obsessive attention that many club bowlers (and some coaches) give to the mere mechanics of the delivery movement. It puts the importance of a sound mental approach in better perspective. The adjacent diagram indicates how the technical component of performance (i.e. technique) requires decreasing attention as bowlers acquire grooved and automated delivery actions. It correspondingly indicates how higher levels of competition faced by developing bowlers challenges their mental component of their performing skill.



Bowlers who experience performance problems during games (e.g. short bowling) should try to correct them immediately. For short bowling, the correction might be a longer arm swing to develop a greater bowl release speed. If the correction is successful, one might imagine that the problem has been solved. The correction was technical, i.e. a change in technique. However, the problem might be persistent and its cause might not be technical in nature. It might be the result of always trying too hard to deliver delicate 'resting-touchers' when wiser play would suggest bowls half a metre beyond the jack (tactical). It might be the result of imperfect vision or ill health (physical). It might be the result of faulty judgement of distances or lack of self-confidence (psychological). The point is that a sustainable solution to the problem relies on accurate diagnosis and remedies from within the same performance area. In other words, a sustainable solution to (for example) a psychological limitation must itself be psychological in nature. (Drills to improve perceptions of distances are easy to develop. They typically involve practice in skilfully estimating the extent to which a coach might have moved bowls or other objects while the client's attention is temporarily directed elsewhere).

Mental Attributes

A good psychological approach to sport is one that provides the ability to excel in performances under pressure. It does not imply gamesmanship or forms of mind games aimed at unsettling an opponent. However, an unruffled performance under pressure can sometimes in itself unsettle an opponent.

Mental attributes are the qualities that define who we are and what we stand for. They include our aims in life, beliefs and attitudes, keenness for bowling, attitude to winning and losing, self-image, propensity for anxiety, social needs, etc. Motivation is the need, desire or stimulus for action and success. Self worth is the image or opinion of one's worth as a person and competence as a bowler. Self-confidence is the motive to be successful accompanied by realistic expectations of success. Self-awareness is the awareness of one's thoughts, emotions and sensory feelings, and of how one's behaviour tends to shape the responses of others.

Mental Skills

Mental skills are the tools with which bowlers can redirect or fine-tune their mental approaches on the desired path to performing excellence. Several mental skills are important in lawn bowling. Attention, or concentration is the ability to focus on relevant matters in competition or other distracting situations. Arousal is the energising of the body in readiness for bowling activity. Goal setting is a process that maps out the attainment of a specific standard of task proficiency within a specified time. Imagery, visualisation, and mental rehearsal have similar meanings and are processes of using all the senses to create or recreate an experience in the mind. Stress management includes a range of techniques. These include relaxation skills, thought stopping, centring, and refocusing.

Learning Mental Skills

Most past and present champions probably learned their mental toughness the hard way - that is by unassisted trial and error. Perhaps most future champions also will acquire sound mental approaches by hit or miss methods. However, the learning process need not always be that way. Competent coaches should not only teach sport psychological concepts, but also guide practice in related techniques. Only regular and purposeful practice over time will produce control and predictability in the mental approach. There are no quick fixes or instant miracles.

Bowlers use mental skills at early stages of lawn bowling. They mentally rehearse in 'feeling' or 'sensing' the pace of the green, the weight of their bowls, and the kinaesthetic feeling in their arms when propelling their bowls the desired distance. They visualise or imagine the curve of their bowl's track when selecting their aiming line. They control their breathing to avoid any feelings of anxiety. They concentrate on achieving a consistent delivery routine, and in excluding distractions to focus narrowly on their aiming point. They adopt motivation and goal setting at least in preferring either social or competitive bowling. So mastery of mental skills involves learning more about them and practising and extending the practical ability to use them.

Bowlers should retain responsibility for their progress with mental skills mastery. They should have reasonable expectations of success and be industrious and patient. There is no general answer to a question of whether third parties could usefully help with process of mastering of mental skills. Obviously, it depends on whether coaches or other third parties have sufficient sport psychology knowledge, and experience in using and fostering mental skills. They must have the trust and confidence of the bowlers they serve. They must also have a warm interest in the progress of their clients and to take responsibility for any mentoring role they accept.

Motivation

Motivation is the attribute that reflects values, wants, and needs for lawn bowling and other pursuits in life. It derives from the prospect of fun and enjoyment that characterise its recreational and social activities. Lawn bowling also offers personal development through mastery of playing skills, and the excitement that typifies competitive games. Motivation mobilises and directs efforts towards achievement of aims.

There are two main types of motivation. There is task-involved motivation where the focus is on the process or performance, and there is ego-involved motivation where the focus is on outcome or result. Task involved behaviour derives from desires to learn from errors and master new skills, to achieve efficacy based on effort, to extend personal bests, and to feel rewarded by performing well. Ego involved behaviour derives from desires to demonstrate superior ability and rises in competitive ranking, to win wherever possible, and to focus strongly on scores achieved and public acknowledgement. The orientation of a bowler may contain a mixture of task and ego involvement. All task-involved (but only a small minority of ego-involved) bowlers can be consistently successful. Task orientation is greatly affected by coaching styles, and the nature of coaches' responses to competitive performances.

People sometimes wrongly use the word 'motivation' to describe energization or arousal. A cartoonists' cliché shows a drawing of a coach giving a pep talk to a team of players with a propensity to under-perform. Pep talks can arouse some players, and that arousal can persist for the next several minutes of competition. However, motivation is not a short-term quality capable of induction by sanctions or arousing techniques. On the other hand, underlying motivation is a different and more enduring quality. Pep talks can be detrimental to motivation if they conflict with personal beliefs or values. They commonly follow a predictable track that soon becomes obvious to players, who usually tune out.

Some bowlers have stronger motivation to participate than others. The frequency of participation could indicate this factor. Efficacious effort, concentration, persistence etc characterise motivated behaviour.

Some bowlers have interests in different sectors of the sport. Preferences towards social play, competition, or club administration, etc are indicators of this factor.

Some commentators suggest that motivation can also be negative. They suggest that preferences to avoid certain acts are examples. For example, a person may be disinclined to consume certain foods because of their tendency to increase body weight. However matters expressed in negative terms are usually redefinable in positive terms (eg to maintain a particular body weight range), so the concept of negative motivation does not have compelling validity.

Bowlers should temper their drives or desires with realism. Bowlers who equate winning with success and losing with failure have a motivational problem. Winning is never certain, nor even a controllable aspect of performance. In a large competition, there can ultimately be only one winner. The other competitors are not axiomatically either unsuccessful or failures. Many of them may have surpassed their individual performance goals, so were successful in those terms. Players who intend making a career out of bowls need a rather calculating approach to the game, because when they

don't win prizes, they don't get paid. However, bowlers looking at a career in another line of work can play bowls for enjoyment, and can afford to be less concerned about winning at all costs.

Bowlers should also distinguish between process and outcome. Process is primarily the delivering of their bowls. The quality of their actions or movements is largely within their control. However, they should avoid expectations of achieving one personal best after another throughout their careers. Outcome is the result of a game. Among other factors, outcome depends on how well opponents perform, which is beyond even vicarious control.

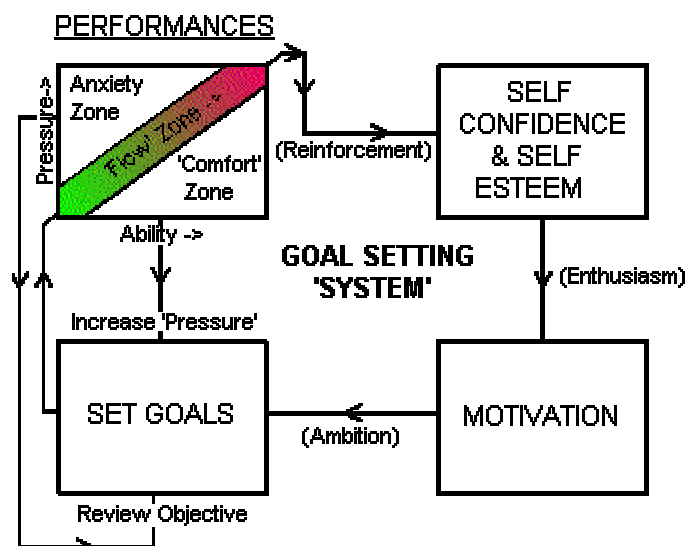
Goal Setting

Nature and Benefits

Goal setting is primarily the practice of defining and prioritising objectives according to the intensity, direction and priority of desires or ambitions. Goals mobilize, direct, and sustain effort. They are the action plan, or blueprint for an appropriate action strategy, and define the desired outcome of particular aims and the courses of action for mastering skills. Goal setting offers time efficiencies and a sense of control. Where no goals exist, sportsmen tend to create goals spontaneously for particular courses of action calculated to achieve desired objectives.

The Goal Setting System

Goal setting practices are closely related to motivation and several other mental attributes. The adjacent diagram implies that these attributes form a 'closed-loop system' whereby motivated desires lead to the setting of courses of action to improve performances, which reinforces feelings of efficacy and self-confidence, which then stimulates the desire to achieve 'bigger and better' objectives. The box labelled 'Performances' simulates a graph with pressure (challenge or degree of difficulty) as the vertical axis, and level of ability as the horizontal axis. When task difficulty and ability match one another, bowlers perform in the 'flow' zone. When there is a mismatch, the task is too easy or too hard and goals should be reviewed and possibly varied. The attributes identified in the diagram tend to have enduring characteristics that are not greatly affected by temporary circumstances. However, system is not the simple closed loop depicted. The attributes involved are really part of a more complex network of relationships connecting other mental capacities.



Scope of Goals

Goal setting is primarily the process of defining and prioritising objectives according to the intensity, direction and priority of individual desires or ambitions. Goals mobilize, direct, and sustain effort. They offer time efficiencies and a sense of control. They form an action plan, or blueprint, and should be based on a sound development strategy.

In the context of a planned development program, performance goals should reflect the culmination of desired improvements during the development period. The scope of goals should extend to each area of performing skill, i.e. technique, game tactics, fitness, mental approach, and preparation for competition. Process goals are a sequence of shorter-term steps that lead to major, longer-term goals.

The time scales relevant to mental skills may range from less than a second (eg a response to a stimulus) to more than a year (eg a career milestone). In defining a goal's criteria, the concept of long and short-term goals arises. Shorter-term goals can stand alone, and may sometimes be adopted during practice or competition. Perhaps because of exuberance, there is a common tendency to overestimate what is achievable in the shorter term. Perhaps because of insufficient appreciation of the cumulative gains of process goal achievement, there is a common tendency to underestimate what is achievable in the longer term. Most people, including bowlers, plan their holidays better than they plan the rest of their lives. The anticipation of holidays is highly motivating, and the prospect is easy to visualise.

Here, the term 'goal setting' refers primarily to participation in lawn bowling. However, bowlers have a range of personal, family, and other commitments outside of sport. All their worthwhile objectives should receive appropriate time and attention from bowlers to achieve balance in life. Bowlers should consider setting goals for all aspects of their lives to reflect their talents, interests and values.

Only individuals really have goals. Teams and other corporate bodies do not have goals so much as a shared purpose. The individual goals of team members need not mesh perfectly with group objectives but do need to be compatible with them. Compatible team members will demonstrate cohesiveness, cooperation, and mutual respect & consideration.

Setting Performance Goals

The following worksheet sets out a logical sequence of steps for defining performance goals, and contains some specimen entries to illustrate the method:

List at least five performance-related and achievable goals reflecting, your needs, wants & interests.

Improve performances in 40-bowl test
Get at least half of deliveries into a 'scoring zone'
Reduce margin for error (bowl scatter)
Increase driving accuracy rate
Improve self confidence in competition
Improve stability & consistency of technique
Improve concentration

List and prioritise at least three timely performance goals.

(A long-term goal is specialising in lead position)
Improve accuracy so that at least half of all deliveries finish in the 'scoring zone'
Improve stability & consistency of technique
Improve performances in 40-bowl tests
Improve concentration

List at least three of those goals in order of descending priority.

1. Improve stability & consistency of technique
2. Improve accuracy so that at least half of all deliveries finish in the 'scoring zone'
3. Improve concentration

Redefine the goals, as necessary so that skills specifically targeted are realistic yet challenging.

1. Avoid loss of balance, mistiming and premature recovery from delivery position
2. Spend part of each practice delivering at least 2 of every 4 bowls into marked 'scoring zones'
3. Develop a delivery procedure ritual; and learn and practice centring in practice & competition.

Refine the goals, as necessary, so that they are positively expressed and contain assessment criteria. Indicate the reasons that justify the inclusion and attainment of each listed goal.

1. Perfect my delivery movement to produce optimal stability, timing and smoothness and 'hold' my follow through; monitoring progress with my camcorder.
Justifying reasons My accuracy and consistency as leader depends on flawless delivery technique
2. Practice delivering at least 2 of every 4 deliveries into a scoring zone positioned at 21, 27 and 34 metres, irrespective of green speed.
Justifying reasons My prospect of my maintaining position as team leader depends on my reliability in getting my bowls in good position close to the jack so that my team mates can build heads in our favour.
3. Develop, practice, perfect and memorise an all-purpose delivery ritual whereby I am always perfectly set up for delivery, and I will always "say the shot", "see the shot", and "feel the shot". Learn, practice, and deliberately use centring technique at least every second end until I sense when my concentration is drifting, and I use centring intuitively.
Justifying reasons My delivery preparation lacks 100% consistency, I sometimes make deliveries without confidence, and I study the scoreboard too often in competitions.

4.
Justifying reasons
5.
Justifying reasons

Defining Goals

Three elements represented by words beginning with 'C': commitment, criteria, and conditions, constitute the essential elements of goals. The commitment is the specific aim or achievable result, and should reflect the principle of progressive overloading. Goals that are insufficiently challenging are unlikely to extend existing skills, and little development is likely to result. Although some imprecision in defining long-term or 'career' goals is understandable, bowlers should avoid vagueness such as "to become a better player". Such vague expressions do not really commit bowlers to particular courses of action. There should be no vagueness in short-term goal definitions. The criteria define when achievement is due and the measurable criteria for success or completion. The conditions define any requirements or exclusions as to time, place, methods, etc. A goal's conditions normally provide the latitude for engineering task challenge or difficulty so that it matches the individual's developing ability.

Recording

Unlike other mental skills, and principally because of the duration of typical objectives, goal setting is easier with aid of a computer or pencil and paper. Written goals attract a stronger and more enduring commitment. Bowlers may commit to performance goals better if they set them in consultation with a respected mentor. The process should begin by listing all possible goals. The next step is reducing goals to a manageable number and listing them in descending priority. The next step is validating the reasons for inclusion of each of the goals. The final step is defining the goals, as necessary, so that they reflect the 'commitment, criteria, and conditions' guidelines. Bowlers should regularly review goals achieved, goals in process, and new goals worthy of introduction. A sheet in the following form lends itself to monitoring of set goals...

Goal Setting and Achievement Log

Goals	Motivational Focus	Shorter Term or Process		Shorter Term or Process		Longer Term Goals	
		Goal #1		Goal #n		Goal Definition	Target Date
		Goal Definition	Target Date	Goal Definition	Target Date		
Bowling	Technical	1... 2... 3...etc	1... 2... 3...etc				
	Tactical	1... 2... 3...etc	1... 2... 3...etc				
	Psychological						
	Physical						
Non Bowling	Family						
	Finance						
	Educ/Training						
	Employment						
	Social						

Achievement of proficiency in goal setting requires practice.

Self Esteem and Self Confidence

Self-esteem is a positive self-image or feelings of self worth. Achievement of goals stimulates self-esteem and encourages the setting of further goals.

Self-confidence is equivalent to realistic expectations of success, or self-belief. It is an optimum state between under-confidence and overconfidence.

Self-esteem and self-confidence generate motivating enthusiasm. They encourage self-control and self-fulfilling expectations of performance improvements.

Validating Performance Goals

Skills rarely improve at a uniform rate, so a levelling out in performance could be a temporary effect that is ultimately self-correcting. If performing tasks have insufficient challenge, skill improvement could taper off, or even decline into a

'comfort zone'. On the other hand, task challenge may be frustratingly unrealistic or even unachievable. Recurring experience of failure could eventually undermine a bowler's self-esteem, self-confidence, and enjoyment of the sport. When there is a mismatch between challenge and ability, particularly when there is insufficient challenge, bowlers should adjust their goals so that they perform in the 'flow' zone. Positive feedback has the capacity to stimulate motivation and sustain the process of setting and achieving goals.

Post Competition Analysis

Post competition analysis broadly encompasses two areas - external events and internal experiences.

External events affecting performance are typically observable and assessable or measurable. They include weather and other conditions at the venue, quality of the opposition, the game plan and its effectiveness (shot selection, game turning points, etc), team cohesiveness, personal performance (strengths and weaknesses), scores or outcome, positive and negative feedback from others, etc.

Internal experiences include:

- sensations - sights, sounds, feelings (incl. kinaesthetic, fatigue, hydration, injury, etc)
- thoughts - helpful or negative, focused, etc
- feelings and emotions - flat, fluent, excited, anxious, positive, etc
- lessons learned and experience gained.

The conclusions that the analysis reveals should be noted for future reference. Improvements in performing skill typically require a tailored training program and a repertoire of supportive methods and learning aids. A training diary that includes summaries of the analysis of performances can be an invaluable aid. Bowlers who do not maintain a training diary are lacking an aid to improvement.

Training Diary

A useful training diary may be of almost any convenient format. It may be electronic or on paper. The size, layout, binding method, and number of pages are also matters of personal preference. A specimen page layout is appended on page 16. Diaries could also conveniently include space for goals, personal contacts, checklists, etc. Pages for data about each performance could have significant factors listed in a convenient and consistent sequence with adjacent spaces for brief notes. The factors selected for inclusion might include many of the following:

Event/Activity	Performance	Movement	Body	Mind	Tactics	Next training & practice goals
Date	Goal achieved?	Timing?	Flexibility?	Level of motivation?	Suitability & effectiveness?	1
Practice/Competition	Personal accuracy?	Stability?	Strain or injury (reason)?	Negative thought stopping (effectiveness)?	Game plan	2
Calibre of opposition	Enjoyment & satisfaction?	Control?	Fatigue (reason)?	Self-confidence recovery (effectiveness)?	Game plan departures?	3
Purpose of practice	Personal rating?		Stiffness (reason)?	Anxiety or over-arousal intervention (effectiveness)?	Tactical innovations?	4
Wind & weather				Maintenance of concentration (effectiveness)?	Turning points of games?	
Score, or outcome				Team harmony?		

Bowlers should update their diaries daily while their recollections of events and feelings are fresh. Thereby, their post-competition analysis is available when planning the next practise session.

Bowlers gain little by recording data that is unlikely to have future value for them. Initially, they might find it useful to imagine they have been maintaining a training diary for some time. They could then imagine themselves reviewing their analysis of past performances. They can then best decide what types of information would have most value in preparing for practice and competitions. This is the information that they should enter in their diaries, using simple words

consistently and concisely to simplify future reference. They might do well to consider how much of the relevant detail they would have remembered without the aid of a diary.

Elite athletes in most sports privately maintain a training diary or logbook. Athletes in masters and veterans sports seem less inclined to do so. Athletes who maintain training diaries review them from time to time, and typically feel proud of their accomplishments.

A Method of Fours Team Play Analysis

Assessing Fours Team Performances

Club selectors have a need for data on individual performances in trial and pennant fixture games. Coaches also could make effective use of such data. One of the problems in collecting it, especially considering that the performance of a side is the aggregate of four separate games, is that it is so time and labour-intensive.

One form of feedback that provides data are the official scorecards of each game. Scorecards do not indicate who played well, but at least they indicate whether a team got away to a good start, and whether they faded, or sustained their effort to the end. Another form of feedback that selectors can seek is the subjective opinion of managers and players as to who played well and who did not. This form of feedback gives also some indication of team motivation and cohesion. Selectors should crosscheck subjective opinions to minimise mistaken observations or personal bias. They should collect this type of feedback as soon after the completion of a game as possible while details are fresh in the minds of the observers.

Lead's Scorecard

A form of feedback worth considering is a lead's scorecard:

End	We				They			
	Lead	2 nd	3 rd	Skip	Lead	2 nd	3 rd	Skip
1	-	-	-	-	1	1	1	2
2	2	3	4	4	-	-	-	-
3	-	-	-	-	2	2	3	1
4	-	1	1	2	1	-	-	-
5	1	2	1	1	-	-	-	-
6	-	-	-	1	1	1	2	-
7	2	-	1	2	-	1	-	-
8	-	-	-	-	2	1	2	3
9	-	-	-	-	2	3	4	5
10	2	4	2	3	-	-	-	-
11	2	2	2	-	-	-	-	1
12	1	1	1	-	-	-	-	1
13	2	2	1	1	-	-	-	-
14	2	2	-	-	-	-	1	1
15	2	3	3	4	-	-	-	-
16	2	3	4	2	-	-	-	-
17	-	1	-	1	2	-	3	-
18	-	-	-	-	2	4	4	3
19	-	-	-	-	2	4	4	3
20	1	-	-	-	-	1	1	1
21	2	4	6	6	-	-	-	-
22	-	-	-	1	2	2	3	-
23	-	2	2	3	1	-	-	-
24	-	1	-	1	2	-	2	-
25	-	-	1	1	2	2	-	-
Adds	21	31	29	33	22	22	30	21
Lead	S.White				V.Black			
2nd	V. Large				A.Small			
3rd	A. Driver				A.Bowler			
Skip	K.Jack				B.Pegg			

This is so-called because the lead is the only player with enough time to maintain it without detriment to other playing responsibilities. In the example below, the focus of interest is the "We" team comprising White (lead), Large (2nd), Driver (3rd), and Jack (skip). If the game were an intra-club pennant trial, interest would also focus on the individuals in the "They" team.

On the first end, the "We" team was down a shot after leads had played. It remained one shot down after both second and third players had played. It was down two shots after skips had played and the result of the end determined accordingly. White recorded all this on line 1 of the card. On the second end, The "We" team was up two shots after White had played. It was three shots up after Large had played. It was four shots up after Driver had played. It was still four shots up after the skips had played, and the result of the second end determined accordingly. White recorded all this on line 2 of the card, and used the same routine to record subsequent ends. Where the measured result of an end disclosed an error in recorded interim scores, White correspondingly altered them. The skip (Jack) helped White's task by signalling the interim score after each player in turn had played both bowls.

Analysing the Score Card

Leads or selectors insert column totals for the "We" team in Line 1 of the following analysis, and for the "They" team in Line 2. They complete Line 3 by subtracting each total in Line 2 from the corresponding total in Line 1. This produces an unadjusted value for each player's contribution. Line 4 is simply the accumulated surplus or deficiency inherited from the previous player which when added to Line 3 produces in Line 5 the adjusted contribution of each player.

Analysis For "WE" Team

Line		Lead	Second	Third	Skip
1	Scores for, after turn	21	31	29	33
2	Scores against, after turn	22	22	30	21
3	Net scores, after turn	-1	+9	-1	+12
4	Less net score before turn	n/a	-1	+9	-1
5	Contribution to team score	-1	+10	-10	+13

The analysis for the "We" team indicates that the skip and the second scored well, the third player did not, and the leads were evenly matched. However, such conclusions may be somewhat misleading. For example, the second player or skip may have encountered a particularly weak or 'out of form' opponent. The third player may have contributed to the good result of the skip, by playing many position bowls that did not directly contribute to the score. Over the course of several games however, aberrations tend to disappear. If Black kept a corresponding card for the "They" team, periodic cross checking should disclose any recording errors.

Concentration or Attention

The Elements of Concentration or Attention

'The championship bowler must condition mind and body. During play, he must exclude thoughts on any subject not vital to his game. This is crucial if he is to develop the unflinching concentration so necessary for success.' (Dobbie, 1983)

Externally-directed concentration is an awareness of stimuli from the five senses. Psychologists commonly use the terms concentration and attention interchangeably. They are the outcome more of ignoring unhelpful self-talk or other distraction than of any forcing of the mind to concentrate. The direction of concentration is external when a bowler selectively scans features of the performing environment. It is internal when a bowler attends to thought processes and neuro-muscular sensations.

Also, the span of concentration may be broad or narrow. It is broad when a bowler is considering several factors and correlating them. It is narrow when a bowler gives undivided attention to a critical aspect of performance. During delivery of a bowl, the span and direction of a bowler's concentration should shift sequentially through several combinations of these phases. Concentration skill involves selecting the immediately important stimulus, shifting attention from one stimulus to another when appropriate, and sustaining focus when necessary.

There are limits to and individual differences in span of concentration. All bowlers tend to concentrate better when engaged in absorbing activity. Stress, pain and fatigue have the capacity to distract concentration. Performance below expectations because of uncontrollable factors also tends to distract concentration.

Bowlers approach the mat with at least two bowls at their disposal. Some bowlers over-emphasise the reliance on the second of their deliveries to correct any error made with the first. Champion bowlers concentrate on achieving the tactical aim with the first of their deliveries. In that way their second bowl often becomes a bonus delivery that they can then play under less pressure. Selective concentration can be developed through competition-like practice. The 'grooving' or automating of the delivery movement relieves any need to give it attention when delivering bowls.

Learning to Concentrate

Concentration training involves increasing the ability to narrow and sustain focus of attention and the ability to exclude environmental distractions. Training may include simulations of event pressures and distractions. The simplest form is probably selective awareness training. It lends itself to adaptation and scheduling by coaches or bowlers to suit individual requirements. The following script is for an exercise in selective awareness training. Participants should begin by making themselves relaxed and comfortable and working through the following steps:

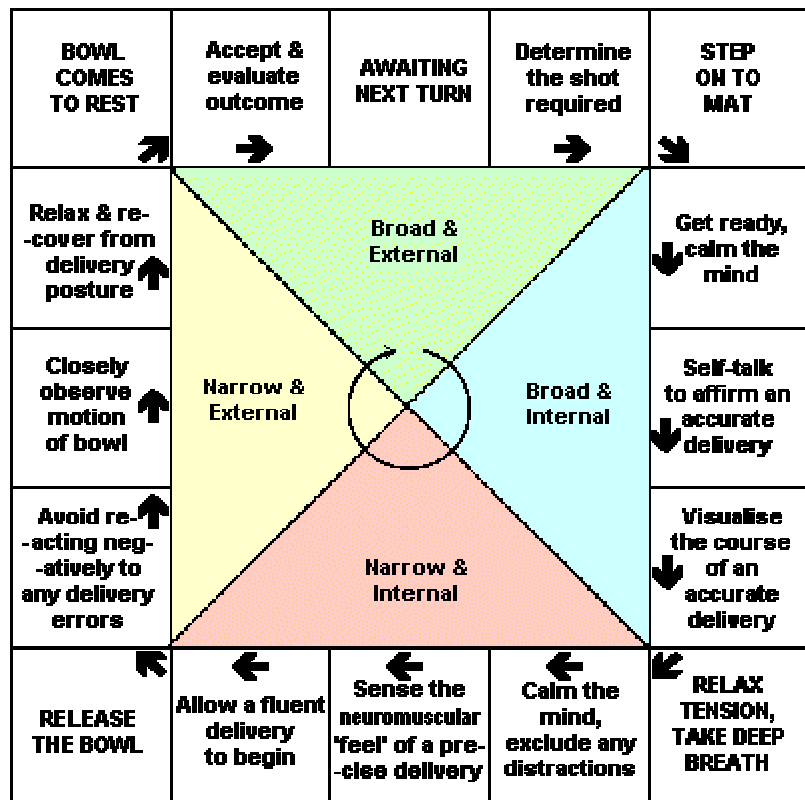
Focus	Sensation	Direction
(Coach): "Close your eyes for a minute or two.	-	-
Focus on your breathing rhythm Inhale deeply every third breath.	Breathing	Internal
Now focus on your thoughts and how you feel about them Calm your mind, then empty it of any thoughts	Thoughts, Feelings	Internal
Now focus on audible sounds. Decide what is causing them and where they are coming from.	Sound	External
Now focus on the contact your hands are making. Then on the contact of your body with your chair. Then on the contact of your feet on the floor.	Touch	External
Now open your eyes and focus on an object across the room. Narrow your focus to shut out objects near your cone of vision. Now broaden your focus so that the original object and other peripheral objects all come into view."	Sight	External

Notice that this simple routine involves both internally and externally-directed concentration, and involves three of the five senses.

Delivery Routine

A routine is an individualised sequence of steps for performing a particular task. It is like a pilot's cockpit drill. It can ensure that all essential elements of a performance receive proper attention. Mistakes such as deliveries on the wrong bias should not occur. Personalised drills or routines are an excellent way of ensuring performing consistency. Expertise in lawn bowling depends on consistent and automatic repetition of sound technique.

A delivery routine enables a bowler to concentrate on the essential variables, namely delivery line and bowl release speed, and confidently rely on that well-practised routine for ensuring that other aspects of preparation fall into place. Reduction in demands on attention results in less anxiety. A well-conceived delivery routine should cycle through broad-narrow-broad and external-internal-external shifts in concentration as follows:



A delivery routine that follows the foregoing pattern, and which bowlers could modify to suit personal preferences, is as follows:-

Delivery Stage	Concentration or Attention	Routine, or Action Steps
Stage 1 Complete previous delivery Prepare for next delivery	Broad & External	Systematically monitor any environmental cues, e.g. wind changes, etc. Stay relaxed but avoid widening attention to the extent that unhelpful distractions intrude. <i>(Wait for next turn)</i> Pick up the bowl Obtain instructions Step on to the mat Select the appropriate delivery line Settle in the ready position
Stage 2 Preparing and rehearsing the delivery	Broad & Internal	Tune out distractions Calm the mind by a deep breath or other means. Be convinced the bowl will do exactly as required; use positive self-talk. Visualize the bowl performing exactly as required
Stage 3 Executing the Delivery	Narrow & Internal	Take a deep breath and narrow the inward focus even more While observing the delivery line, sense the neuro muscular activation of the delivery arm and body; imagine the feel of the ideal delivery Focus on the aiming point, and let the arm swing and the delivery flow, exactly as rehearsed
Stage 4 Recover and relax.	Narrow & External	Avoid any negative reaction to a delivery that misses the mark. Watch the run of the bowl and estimate any correction warranted. Breathe deeply and relax both mind and body.

Imagery

Imagery (or Visualization)

Many people, even some psychologists, occasionally use the terms imagery, visualisation and mental rehearsal interchangeably. Imagery involves creating or recreating an experience in the mind. A common application is visualising the likely path of a bowl to determine the delivery line and speed required to achieve a particular result. The more senses (sight, sound, touch, smell, taste) that bowlers can use in imagery, the more powerful is its effect.

Mastery of imagery should proceed through each of the following stages:

1. Establishing realistic expectations in the rate and amount of individual progress in mastering the technique.
2. Stimulating responsiveness of all the senses during imagery
3. Enhancing its vividness
4. Establishing the controllability of imagery at will.

Lack of experience of the look and feel of a particular bowls skill when it is well executed may limit the effectiveness of imagery in early stages of skill learning. Therefore, imagery is typically less helpful for learning new skills than for refining learned skills. The higher the stage of learning, the more beneficial does imagery become.

Anxious bowlers may use imagery to practise relaxation in visualised anxiety-provoking situations. Psychologists use the term stress inoculation to describe such desensitising techniques.

Mental Rehearsal

'Before your shot, visualise yourself playing the perfect bowl - draw, drive or controlled shot - whatever is called for. Imagine it as vividly as you can, then step onto the mat.' (Snell, 1982)

Mental rehearsal is a more descriptive term for imagined executions of balanced, fluent, and accurate deliveries of bowls. It generates the neuro-muscular activation that occurs when actually bowling. It can provide skill practise when bowlers are fatigued or injured, and at a pace that they can control.

Internal imagery includes kinaesthetic (performing) experience. External imagery involves an outside perspective of a performance.

Imagery that includes bowling successfully and that is intrinsically rewarding can reinforce motivation.

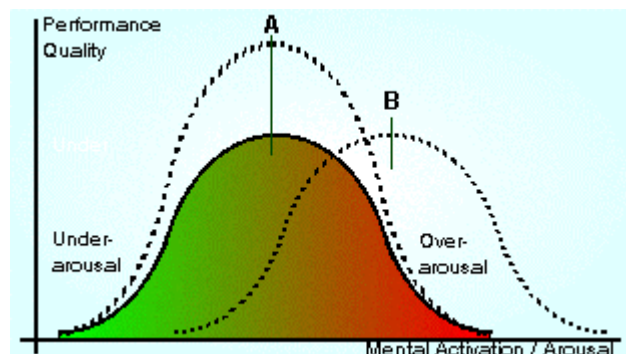
Skill in use of imagery improves with regular practice.

Arousal & Anxiety

Arousal

Arousal is a state of activation, stimulation or excitement that has a physical component, and usually has also a psychological element. The cause of arousal may be a natural response to a situation perceived as threatening. It is then a 'fight or flight' response. Other popular terms used to describe the physical effects of arousal include 'adrenalin rush' and 'fired up'. Arousal typically elevates heart rate. Over-aroused bowlers typically exhibit hurried performances. A popular term used to describe the psychological component of arousal is 'psyched up'. Arousal tends to increase in the period leading up to competition, but taper off somewhat once it begins. This reaction to competition is not inherently negative.

The graphical relationship between performance and arousal takes the form of a bell or inverted 'U' curve, as the adjacent diagram shows. A short vertical line indicates the top of curve A. The top of the curve corresponds with the peak level of performance. The base line point below the top of the curve indicates the level of arousal that corresponds with peak performance. Small variations in optimal arousal cause only slight reduction in performance quality. Optimal arousal and psychic activation is a controlled, focussed 'flow' zone centred between the 'comfort' zone (green area) and the zone of over-excitement or over-stimulation (red). Larger departures from optimal arousal produce may cause significantly sub-optimal levels of performance.



The dotted bell curve (A) represents a different level of performance for the same level of arousal. Two bowlers can have the same optimal level of arousal but one of them may perform better (the higher curve) because of greater experience and skill. However as the other bowler improves, the difference between their capabilities tends to diminish.

The dotted curve B reflects a different level of arousal that produces the same level of performance. For fine or complex motor skills that commonly have only small latitude for error (eg accurate bowling on fast greens over short distances), low levels of arousal (curve A) are better. For gross motor skills (eg driving at a large cluster of bowls), higher levels of arousal (curve B) are better.

Some bowlers, particularly junior boys, have a passion for driving. They will drive even when tactical risks are high and potential rewards (particularly in comparison with the tactical alternatives) are low. Worse still, they typically approach the task in an over-aroused state, and tend to sacrifice accuracy for speed. This further reduces their prospects of success. Over-arousal is also common within a team towards the end of a game if it is well ahead on the scorecard.

Dotted curve B also serves as a reminder that there are individual differences in the optimal level of arousal among bowlers. Pep talks or urging, that exhorts bowlers to 'lift their game', can have the effect of lifting some of them from their comfort zone to their optimal level of arousal. However, pep talks can further arouse any bowlers who are already optimally aroused. In other words, the exhortations can 'backfire' and produce worse performances. Worse, they can generate anxiety that may further worsen performances.

Successful self-management of both arousal and anxiety, which is described in the following section, depends significantly on disciplined thought processes. Arousal management techniques appear in the next section.

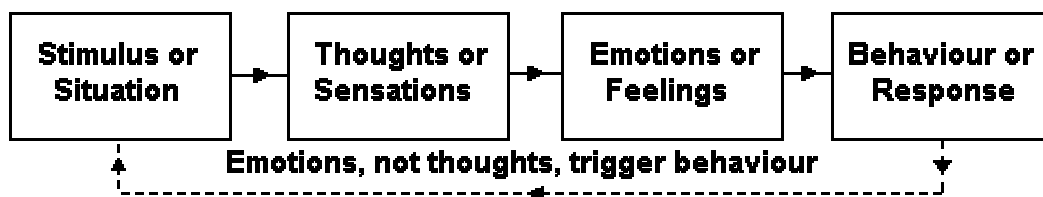
Anxiety and Stress

Nature of Anxiety

Anxiety may occur when bowlers perceive an imbalance between what is demanded of them and what they are capable of doing, and the outcome is important to them. Anxiety is a psychological condition associated with feelings of apprehension or tension. It is not uncommonly accompanied by over-arousal. Stress is a heightened condition of anxiety. Stress may be observable because of the physiological and behavioural symptoms that accompany it. Symptoms of stress may be psychological (such as distraction or worry), physiological (such as elevated heart rate or shallow breathing), or behavioural (such as nail biting or fidgeting).

Causes of Anxiety

There are individual differences in propensity for stress. Negative emotions typically induce stress. Bowlers with result-oriented goals are more prone to stress than those with performance-related goals. The following diagram illustrates how circumstances lead to thoughts, how thoughts induce emotions or feelings, how emotions shape behavioural responses.



An important relationship evident in the diagram is that the performance or other behaviour tends not to be the direct outcome of thoughts. Typically, behaviour is influenced much more by the emotional inferences or feelings that a bowler makes from those thoughts. The dotted path completes a loop indicates how responses could modify the original situation, or even create a new situation.

'Negative self-talk' is commonly the outcome of worrying about inherently uncontrollable factors of a competition. If the impulses flowing in a circular pattern are negative in character, an anxiety spiral, or stress develops. Anxiety or stress arises not from bowlers' perceptions of a situation but from the feelings generated by self-talk.

Bowlers who lose matches after having been well ahead in progressive scores either witness their opponents recovering from a slump, or they fall into one themselves. It is not possible to control the calibre of an opponent's game, but bowlers are able to control their own performances. To have accumulated a large margin, they must have been 'in the groove'. They had probably focused on line and length, delivery after delivery, and the jack must have seemed as large as a football. Then something distracts them. Perhaps their opponents win an end by a couple of shots. Even weak opponents will occasionally win ends. They begin thinking about how much more of their margin they might lose, about how the rest of the match might unfold, and what the final score might be. They start to get anxious and allow their concentration to switch away from immaculate line and length and they begin speculating about match outcomes. Their accuracy starts to unravel, and they start to get annoyed with themselves, the opponent, the marker, and anyone else in their neighbourhood. That is often how big margins vanish.

Effects of Anxiety on performance

When bowlers experience stress, the hyperactivity in the analytical left side of the brain tends to generate paralysis of the right side's motor skills. Negative self-talk is in many instances a temporary, or short-term effect. However, it can greatly influence performance throughout or in part of a match. An isolated episode of either a positive or negative character is unlikely to affect the more enduring mental attributes, such as motivation and self-confidence.

Avoiding over-arousal or anxiety

The ability to cope with pressure is a very important quality of a champion. There are individual differences in the ability to keep self-talk positive. Bowlers can make competition stressful by imagining problems that might never occur. There is really no such thing as a stressful situation. The self-talk that should continually occupy the minds of bowlers during competition, centres on accurate aiming lines and bowl delivery speeds. If it is positive, self-talk has the capacity not only to inhibit negative thoughts but also to augment confidence and self-image.

Competitive bowling inevitably imposes a degree of pressure. Bowlers can avoid some of the effects of pressure, i.e. over-arousal, distraction, and anxiety in several ways. Constructive self-talk can isolate any emotion from thinking

processes. Engineered exposure to the usual elements of competition can desensitise bowlers to their effects. Observance of competition preparation routines can ensure that no essential matters are forgotten, and which otherwise could become causes for concern.

A pre-competition routine offers bowlers the benefits of predictability and control and the avoidance of worrying problems during the lead up to important events. It ensures all necessary preparations receive proper attention. It is a checklist of preparatory steps not unlike an aircraft pilot's cockpit drill. A pre-competition routine has some parallels with a delivery routine. The form and content of routines are a matter of individual preference, and individual bowlers must sometimes prepare differently for different events. Subjective matters that typically deserve inclusion in a pre-competition routine include the following:

- becoming familiar with the published conditions of play,
- obtaining satisfactory answers to worrying questions about the event,
- visualising the ambience of the venue on competition day, and
- keeping prospects of winning or losing in perspective.

Matters that typically deserve inclusion in pre-competition checklists include the following:

Before competition day:	Competition day:
Competition preparation	Bland meals
Relaxation practice	Punctuality
Personal goals regarding the competition	Team meetings
Personal equipment clean & practice complete	Relaxation & concentration
Packing list	Game plan
Travelling & competition time-table	Warm up
Competition eve sleep	UV protection
	Hydration

Controlling over-arousal or stress

Despite comprehensive preparations, pressure inevitably arises during competition. Irrespective of whether that pressure manifests itself as over-arousal, distraction, or anxiety, effective methods of containing its effects are similar. Typically, bowlers must stop any negative thinking and empty their minds so that positive self-talk can take effect. Bowlers with their composure disturbed by over-arousal or anxiety normally find that remedies synchronized with body rhythms are very helpful. A notable example is controlled breathing, which is an aspect of centring technique - useful for regaining composure and control during competition.

Centring employs deep breathing, a body rhythm, and muscular relaxation to induce mental relaxation. This simple exercise is quick, and need not attract the notice of team mates and opponents: -

- Balance body weight evenly and comfortably between the feet. Relax, take a deep breath, and exhale slowly.
- Displace any negative thought that comes into mind with a positive thought. (Negative thought stopping)
- Concentrate on a factor that is relevant to success.
- Say one or two favourite keywords of proven effectiveness in past performances.
- Focus on producing a smooth, rhythmic delivery. (Affirmation, positive self talk)
- Form a mental image of a successful delivery.

Bowlers may vary the procedure to suit individual requirements, but it needs practice, just like any other skill.

Uncontrolled stress typically causes negative behaviour, which tends to reinforce a spiral of negativity within conscious mental processes. It typically undermines the capacity to perform effectively. Negative thought stopping and positive self-talk are typically the most productive ways of dissipating a negative cycle. Positive self-talk tends to induce positive feelings or emotions and to enhance performance. An improvement in performance constitutes a new and positive situation or trigger. Positive self talk also has the capacity to be self-reinforcing.

Learning to Relax

Bowlers could reduce their propensity for stress by practicing relaxation techniques in their training routines. Relaxation training should begin with a controlled breathing routine. Bowlers can use controlled breathing as a relaxation technique or as a preparation for other relaxation techniques. Breathing is an automatic and easily monitored body rhythm on which bowlers can redirect any distracted thoughts.

Controlled breathing is an example of 'muscle to mind' relaxation technique. Such techniques involve systematic relaxation of muscles to induce calming of the mind. They are in wide use, simple to learn, and highly effective for stress intervention. Progressive relaxation technique involves conscious release of tension from a sequence of major muscle groups. If using active progressive relaxation, bowlers tension, pause, then release tension in the major muscle groups around their bodies. If using passive progressive relaxation, they simply locate parts of the body where tension is present, and consciously induce the tension to flow away. 'Mind to muscle' relaxation techniques are also effective for management of arousal. Such techniques involve calming of the mind to induce release of tension around the body. Examples of such techniques include meditation, imagery, and autogenic training. Autogenous technique invites attention to how parts of the body feel rather than how relaxed they are. Such feelings include heaviness or lightness, warmth or coolness, etc. Bowlers can reinforce effectiveness of the technique by repeating such statements that affirm a feeling of complete relaxation.

Memory and Performance

If a bowler's first delivery nearly succeeds in realising a desirable tactical outcome, and if the next delivery by the opposing team has not materially affected the situation, the skipper's call for the second delivery is likely to be along the lines of: "Still drawing to here. How's your memory? Same line. Same weight, don't change a thing!" Should the second delivery also miss the objective, the skip's comment is likely to be along the lines of: "You changed it, I wanted the same bowl"

The bowler may have experienced a little extra pressure for the second attempt and this may have contributed to the outcome. However, bowlers' kinaesthetic memories are shorter than is commonly realised. Short-term memory endures reasonably well for about 25 seconds in most individuals, after which it declines very rapidly. After the first attempt, the opposing team will have possession of the rink for around a minute during which their player chooses a bowl, prepares and executes its delivery, and observes its run until it comes to rest. Thus, a minute or more may elapse before a bowler is able to prepare for a second attempt. Because of the amount of elapsed time, many bowlers are unable to remember enough of a prior delivery to duplicate the movement. Consequently, they are obliged to re-program the second delivery from scratch, re-estimating required delivery speed and line. Recollection of personal data such as telephone and PIN numbers becomes possible through reinforcing techniques whereby it transfers into long-term memory. Some individuals may retain enough vestigial traces of a previous delivery to help them fine-tune their motor program for the subsequent delivery.

Bowls is a mechanically simple sport. The limited duration of short-term memory is one of several aspects of bowls that make the game so mentally challenging. Archers and shooters are not usually obliged to wait so long between scoring attempts. They are able to retain a more vivid imprint of the previous movement as a model for their next.

Use of Scripts

Notes on Scripts

A common mental skill training technique involves spoken positive suggestions that induce beneficial thought patterns in listeners. The term 'scripts' applies to both written and spoken versions of the commentary. Effective presentation requires an unhurried, firm and steady voice. Effective media includes audiotapes, typically each of 10-20 minutes' duration. Users should hear them daily, possibly for several months, to imprint their benefits.

Mental skill training requires a distraction-free environment. Different mental skills require different training scripts. A session might well begin with a relaxation script. Some scripts may have motivational value. However, they constitute neither pep talks nor hypnotism. Users may shorten and re-record scripts themselves as their responsiveness to related mental skills develops. They can sometimes recall memorised segments of scripts to advantage during competition.

Specimen scripts appended are

- Imagery (page 19)
 - Mental Rehearsal (page 19)
 - Thought Stopping & Positive Self Talk (page 20)
 - Deep Breathing (page 21)
 - Progressive Relaxation (page 21)
-

Bowler's Training Log Book or Diary

Date.....

Event/Activity
Practice/Competition
Calibre of opposition
Purpose of practice
Wind & weather
Score, or outcome
Performance
Goal achieved?
Personal accuracy?
Enjoyment & satisfaction?
Personal rating?
Movement
Timing?
Stability?
Control?
Body
Flexibility?
Strain or injury (reason)?
Fatigue (reason)?
Stiffness (reason)?
Mind
Level of motivation?
Negative thought stopping (effectiveness)?
Self-confidence recovery (effectiveness)?
Anxiety or over-arousal intervention (effectiveness)?
Maintenance of concentration (effectiveness)?
Team harmony?
Tactics
Suitability & effectiveness?
Game plan departures?
Tactical innovations?
Game turning-points?
Next training & practice goals
1
2
3
4

Mental Approach to Lawn Bowls - Self Assessment

Self-assessment or self-reflection is a useful way of reviewing approaches to sport. A checklist for self-assessment follows. Comments for further reflection follow the checklist.

Method

1. Respond to each proposition by inserting a mark that best corresponds to your own approach.
2. Glance at the comments that follow that correspond with each question.
3. Adjust any of your original marks where you consider appropriate.
4. Identify any matters that you would like to discuss further with a suitably experienced counsellor (e.g. psychologist, sport agency, coach, etc).

Proposition	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I like playing bowls				
2. I use my imagination to enrich my bowling experiences				
3. I feel responsible if my team fails to win.				
4. I am disappointed when I don't win the game				
5. I enjoy my regular visits to the bowls club				
6. I enjoy playing in competitions.				
7. I like to feel in 'the groove' when I play bowls.				
8. I tend not to play as well in competition as in lead-up games.				
9. I continually fine-tune my technique, and practice regularly.				
10. Playing bowls has made me mentally sharper.				
11. I tend to get distracted by the scores in close games.				
12. I often feel anxious during competitive games.				
13. I concentrate on my body movements when I deliver a bowl				
14. I would like to achieve quick improvements in my skill.				
15. I have never turned a competition game around; i.e. I have never won a game once I got the feeling I was going to lose it.				
16. I enjoy playing as a member of a team.				
17. Playing bowls has helped my health and fitness				
18. I am more self confident about my game than I used to be.				
19. I enjoy the bowling at the club.				
20. I enjoy improving my bowling skills				
21. I like to win prizes in bowls events.				
22. I have lost many games, after having had an almost unbeatable lead.				
23. I like to play a drive when the opportunity presents itself.				
24. I tend to get distracted by the opposition during competition games.				
25. Bowling has made me feel a better person				
26. I believe that bowling requires a similar level of sportsmanship as other sports.				
27. I keep errors that occasionally creep into my game in perspective				
28. I would like to be a leading bowler				

Comments

1 Enjoyment of the game is the key to continuing participation

2 Imagination can be a powerful aid in development of bowling skills. Bowlers should imagine situations as they would normally experience them, and try to engage as many of the 5 senses as possible.

3 Success and winning mean different things, just as losing and failure mean different things. Success should be the outcome of matching or exceeding one's personal best. A successful performance may or may not be a winning performance.

4 Expectations of continual winning outcomes are unrealistic. Losses generally provide learning experiences that can help skill development, and should be accepted gracefully. A belief that 'Winners are grinners; losers can please themselves' is symptomatic of a degree of selfishness that is unworthy of the sport.

5 Bowls clubs offer fellowship, and the opportunity to chat about community issues

6 Competition provides new learning experiences - particularly about the progress of one's bowling skill development

7 When bowlers face challenges that match their skills, and they approach them in neither an under- or over-aroused state, their performances tend to 'flow' or follow 'a groove'.

8 For some bowlers, a competition environment induces apprehension or negativity, or has random noises and movements that distract them.

9 Persistent self-development usually yields improved performances.

10 The desire to play bowls, coupled with realistically achievable, personal expectations, should positively reinforce self-confidence and self esteem.

11 Bowl deliveries have a process (delivery) and an outcome (scoring effect). Optimal performance depends on concentrating on precise and fluent delivery processes. Scores should be left to look after themselves.

12 A moderate amount of stress can yield enhanced performances. However, uncontained stress can induce anxiety that normally and adversely affects performance. Stress is responsive to positive self-talk, or thought control interventions, and to relaxation techniques such as deep breathing.

13 Concentration should focus on required line & length: simultaneous body movements should be subconsciously automatic

14 A reduction in the rate of wasted deliveries is an obvious candidate in many cases. Bowlers generally overestimate what are achievable objectives in the short term. They 'set their bar too high'. Unachieved objectives usually translate into diminished self-confidence and loss of faith in the value of goal setting.

15 Once attention switches to game outcome, and negative self-talk is allowed free reign; pessimistic prophecies tend to become self-fulfilling. Focusing on process, positiveness, and relaxing breathing provides the best prospects of turning a game around.

16 Team play offers small-group bonding for a shared task.

17 A good diet, avoidance of tobacco, & moderation with alcohol should allow the fresh air and exercise to provide beneficial health and fitness.

18 Reinforcement of self-confidence and self-esteem is a normal outcome of positive experiences in playing bowls

19 Bowling activities offer companionship in the clubhouse and out on the green

20 Mastery of sporting skill is commonly highly motivating

21 Money, publicity, acknowledgement, etc are forms of extrinsic rewards. Personal satisfaction, and reinforcement of self-esteem and self-confidence are forms of intrinsic rewards. Intrinsic rewards tend to be more enduring and more beneficial in the long term.

22 Having had this experience before, players tend to be distracted by the thought that it might happen again. That it happens at all is commonly the result of concentrating on the scoreboard instead of on accurate line and length and consistently fluent technique.

23 A predilection for driving is commonly an expression of youthful exuberance, or over-arousal. Carelessness is often responsible for inaccurate and ineffective driving. Driving often occurs even when other shot options have better prospects of success.

24 Of all the factors present during competition, some are controllable by a player, and some are not. Factors that are uncontrollable, such as environmental conditions and how well opponents are playing, should be dismissed from the mind. Concentration should focus on only those factors that are controllable. These centre around a player's own performance.

25 Bowls has the capacity to help development of health & fitness, mental well being, and social interaction skills.

26 Nobody admires a cheat, or a player who violates the traditions or etiquette of lawn bowling

27 Occasional performing errors are natural learning experiences about skills to be mastered.

28 In the long run, anything is possible. Success can build upon success. However, 'failing to plan usually means planning to fail'. Without clear objectives, and a disciplined approach to development of skills, vague hopes are unlikely to be realised.

Psychological Skills Self-Training Scripts

(Refer to Notes on Scripts on page 15)

Imagery Script

"You'll continue by using the power of your imagination to consolidate your relaxed feelings...

Keep your eyes closed ...

Deeply breathe in ...

Slowly breathe out ...

Imagine yourself alone in a quiet valley ...

See how the sunlight touches the bush ...

Feel its warmth ...

See how it creates highlights and splashes of colour on the trees and grassy banks ...

See how the wind forces the slow march of scattered white clouds ...

Feel the wind against your cheek ...

Hear it pushing through the trees ...

Smell sometimes the scent of blossom, sometimes the tang of the decaying leaves of the damp understorey...

See the dancing highlights of a rippling creek ...

Hear it talking to granite rocks along its course or to the dragonflies hovering over its surface ...

See the darting birds ...

Hear their musical chatter ...

Hear the shrill buzz of hidden cicadas ...

This is a restful place. Let yourself relax and enjoy it...

You have made your imagery vivid by using all of your senses ...

Deeply breathe in ...

Slowly breathe out ...

(To continue) Remain nicely relaxed ...

(To discontinue) Now you can open your eyes and have a stretch and a yawn."

Mental Rehearsal Script

"While you are nicely relaxed you'll continue using imagery to mentally rehearse some fine bowling...

Keep your eyes closed ...

Remain nicely relaxed ...

Imagine yourself picking up one of your bowls in your non-bowling hand...

Hold the bowl comfortably to your waist ...

From behind the mat, give your attention to the head ...

Determine where your bowl needs to finish and which side of the rink to play ...

Decide what delivery line you need for your bowl to finish on the exact spot ...

Using self talk; tell yourself that your bowl will set out on that line; that it will begin curving in towards that spot as it begins to slow down ...

Tell yourself that it will curve more and more as it gets slower and slower; right on track ...

Tell yourself that your bowl will drift towards the spot and finish right on it ...

You feel confident ...

Remain nicely relaxed ...

Now you know what you are going to do ...

Step forward on to the mat with your anchor foot pointed along your delivery line ...

Bring your opposite foot comfortably alongside ...

Transfer the bowl to your bowling hand with a centred grip and on the correct bias ...

Flex your knees: and get your weight over the balls of your feet ...

You are nicely set up ...
Narrow your focus ...
Pause in the ready position ...
See your exact aiming point ...
See your bowl grassing sweetly and setting out right on line ...
See it curve at the shoulder of the green and begin closing on the head ...
See it slow down nicely as it drifts in to the right spot ...
See it finish its run right on target ...
You are perfectly focussed ...
Deeply breathe in ...
Slowly breathe out ...
Remain nicely relaxed ...
Still in the ready position, let your body feel that perfect delivery ...
The nerves that control your muscles feel activated ...
You can feel that perfect delivery ...
Your mind feels right ...
Your shoulder muscles feel right ...
Your legs feel right ...
Now go ahead and execute that perfect delivery ...
As you do everything feels the same; everything feels right ...
Even as the bowl leaves your hand, you know that it will finish very close to where you planned...
See the bowl follow the right track and finish right where you wanted ...
Congratulate yourself for that perfect performance ...
You can relax a little before your next delivery ...
You can check whether the wind might be shifting; or whether the green pace might be changing ...
Forget about the position at the head, forget about the score, forget about your opponent, and forget about distractions among spectators...
Keep your focus fairly narrow otherwise negative thoughts will intrude ...
Remain nicely relaxed ...
Deeply breathe in ...
Slowly breathe out ...
Now you can open your eyes and have a stretch and a yawn."

Thought Stopping & Positive Self Talk Script

To stop negative self talk or negative thought, bowlers must first recognise that it is occurring. If possible they should ascertain what caused it. Effective intervention for many bowlers may be as simple as saying the word "stop" silently, or even aloud. Bowlers should then replace negative thoughts with rational or motivational positive thoughts. Positive self-talk is self affirmation expressed in the present tense. For example "I am confident because...". This step will not only counteract stress but help concentration on the task at hand.

"Now that you are nicely relaxed you'll continue using your imagery skill for replacing any negative thoughts with positive ones...
Keep your eyes closed....
Remain nicely relaxed....
Imagine you are a finalist in a major championship tomorrow....
Tell yourself that's great. At last you have your opportunity in the big league....
Remain nicely relaxed....
Imagine that your opponent is a formidable bowler....
Tell yourself that's great, too. It will bring out the best in you; and if you play well enough to win, the victory will be that much sweeter....
Remain nicely relaxed....
Imagine the venue is unfamiliar to you....
Tell yourself that's fine. It's not your opponent's home club either, and it's just another bowling green....
Remain nicely relaxed....
Imagine that competition day has arrived and there is a strong wind....
Tell yourself you have played well in strong winds many times....
Visualise highlights of an important game that you won in strong wind...
Deeply breathe in....
Slowly breathe out....
Remain nicely relaxed....
Imagine that you have arrived at the venue and there is an unexpectedly large crowd there....

Tell yourself that their presence will bring out the best in you....
Imagine yourself walking over to briefly talk to one or two of them....
Now tell yourself they are all your friends....
They are all on your side....
Remain nicely relaxed....
Imagine the direction of play is into the sun in one direction....
Tell yourself that you have played into the sun hundreds of times and it doesn't worry you....
Remain nicely relaxed....
Imagine the venue is beside a busy street, and there is distracting traffic noise outside...
Tell yourself that you will be concentrating so much on smooth, consistent bowling, that you'll let your opponent worry about distractions...
Deeply breathe in....
Slowly breathe out.....
(To continue) Remain nicely relaxed....
(To discontinue) Now you can open your eyes and have a stretch and a yawn."

Deep Breathing Script

"Please begin by getting yourself squarely seated in a comfortable position. Feet together. Forearms comfortably extended along your thighs. Please close your eyes, everyone. I want you to keep your eyes closed, until I tell you to open them at the end of this session."

"You'll begin by using the muscles of your body to calm your mind.
You'll start with the muscles you use for breathing.
Concentrate on your breathing.
Deeply breathe in....
Let your diaphragm push against your stomach.....
Slowly breathe out.....
Ten.....in.....
Nine.....out.....
Eight.....in.....
Seven.....out.....
Six.....deeply in.....
Five.....slowly out.....
Four.....in.....
Three.....out.....
Two.....in.....
One.....out.....
Keep your eyes closed.
Concentrate only on your breathing....
Enjoy that relaxed feeling. Let the tension flow out of your body...
(To continue) Remain nicely relaxed....
(To discontinue) Now you can open your eyes and have a stretch and a yawn."

Progressive Relaxation Script

(Typically continues controlled breathing script)
You'll continue by using more muscles to consolidate your relaxed feelings...
You'll begin with what is called active progressive relaxation...
Deeply breathe in....
Slowly breathe out.....
Become aware of your lower right leg.....
Tension the muscles in your lower right leg.....
Hold...
Now relax.
Let all that tension flow out of your leg...
Deeply breathe in....
Slowly breathe out.....
Become aware of your lower left leg.....
Tension the muscles in your lower left leg.....
Hold...
Now relax.

Let all that tension flow out of your leg....
Deeply breathe in.....
Slowly breathe out.....
Become aware of both your thighs.....
Tension the muscles in both thighs.....
Hold...
Now relax.
Let all that tension flow out of your thighs....
Deeply breathe in.....
Slowly breathe out.....
Become aware of your lower right arm.....
Tension the muscles in your lower right arm.....
Hold...
Now relax.
Let all that tension flow out of your arm....
Deeply breathe in.....
Slowly breathe out.....
Become aware of your lower left arm.....
Tension the muscles in your lower left arm.....
Hold...
Now relax.
Let all that tension flow out of your arm....
Deeply breathe in.....
Slowly breathe out.....
Become aware of both upper arms.....
Tension the muscles in both upper arms.....
Hold...
Now relax.
Let all that tension flow out of your arms....
Deeply breathe in.....
Slowly breathe out.....
Let your awareness drift from your limbs up your body.....
Become aware of your head and neck.....
Mentally search for symptoms of tension there.....
Use your head and neck muscles to increase any tension....
Hold...
Now relax.
Let all that tension flow out of your body....
Deeply breathe in.....
Slowly breathe out.....
(Pause for any repetitions)

We'll now switch to passive progressive relaxation technique.
Become aware of your shoulders and body.....
Mentally scan them for any tension.....
Let that tension just flow away.....
Let it flow right out of your system.....
Deeply breathe in.....
Slowly breathe out.....
(Pause for any repetitions)
(To continue) Remain nicely relaxed....
(To discontinue) Now you can open your eyes and have a stretch and a yawn."
