

Examples of specific Pre-hab and technical sessions



Pre-hab drill 1
Bowling specific strength and stability session (shoulder stability)



Pre-hab drill 2
Bowling specific strength and stability session (abdominal training)



Pre-hab drill 3
Bowling specific strength and stability session (Back foot landing stability)

Setting the Pace



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Setting the Pace



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"Stand up tall, stop falling over, don't bowl down the leg side, line and length son, the wrist is not right, keep the fingers behind the ball".
Are these the questions you are putting to your bowler?

As yet I have not been involved with any bowler who deliberately wanted to do any of these if they had the opportunity. The skill of bowling is unique and requires plenty of hard work but there are a few simple principles to help understand 'cause and effect' as you try and solve the inconsistency in the delivery of their skill and then build a coaching plan to rectify these inconsistencies.

The skill is a sum of all parts and building a profile covering technique, fitness, workload, physiological and psychological characteristics, skill development require careful screening, planning and integration in the pace bowlers development program.

Technique
Irrelevant of the classification of the action there are a number of phases in the delivery that make up the whole action, run up, jump/gather, back foot landing alignment, delivery (minimum shoulder counter rotation), front foot alignment, release and follow through. These tend to be the fundamental areas in all the actions that require close monitoring to gain the best result for the individual.

With most great athletes, coaching plays a part in their development and on most occasions it helps to improve the athlete. To try and sum up what a bowler needs in establishing or developing their action, the player should display these characteristics,

- ✓ A balanced run up with a jump that takes the body towards the target.
- ✓ An inline hip and shoulder position at back foot landing that allows minimum shoulder counter rotation through to front foot contact.
- ✓ The body needs to be fairly upright, the wrist in a good position at release followed by good hip, shoulder and arm rotation in the follow through.
- ✓ A fit body, an understanding of their action and how to implement that in a game, all underpinned by a relentless desire to be the best they can be regardless of what is going on around them.

Physiological and Medical Screening
It's true you need to have certain physiological characteristics to bowl fast, and we are not all wired together the same, so screening

and being aware of problems of things like flat feet, growth spurts and flexibility concerns need to be profiled and appropriate programming undertaken.

Fitness
The exciting and unique art of pace bowling places great physical pressure on the body, junior or senior bowlers require the correct preparation of bowling workloads and conditioning programs to reduce the high incidence of injuries.

Movement Efficiency -
An action that allows a smooth transfer of run up to delivery improved efficiency and reduced stress

Endurance -
No one absolute program but it must process qualities to ensure bowling quality spells during a full day. Running is a big part of the skill and must be factored into the training, half hour, intermittent pace and interval sessions are a must!

Stability and Strength -



There is a big difference between international and domestic first class players. The international bowler can bowl up to twice as many overs in a calendar year, the bowler can experience forces up to 10 times his body weight during delivery so one can imagine the wear and tear happening. The body needs to be stable importantly in the trunk, strong abs, gluts combined with flexibility of the pelvic area will help keep the action together and off the physio's bench!

Body Awareness, Rhythm and Co-ordination -
A good awareness of their body in space. During the delivery the body leaves the ground and completes rotations of the trunk and arms and returns to the ground hopefully in a balanced and strong position to develop speed and repeatability of action. You need good proprioception. Rhythm is the key word; the run up must have efficiency and the right momentum to be able to jump on balance into the delivery.

Mental Toughness -
As with any training session there is an opportunity to train the mind so fitness sessions must

mirror the intensity and commitment required in the game. Each session must be challenging, experiencing these conditions will prepare the body and mind for the efforts that will be required in the game!

Skill
Do you have the 'variations' to be thrown the ball at any time of the game?

Deception and variations have always been important tools to have but with the development of the One Day games, batsman friendly pitches that seem to be produced not to mention the way the game is viewed in regards to entertainment value, more runs = exciting cricket, the bowler needs all the help they can muster to stay in the game and not be 'subbed off'. In, away, reverse swing, off, leg cutters, change up and down deliveries need to be practiced and demand an important spot in training programs.

Mental
One very important area that the past and present great fast bowlers all seem to have is the desire to be the best. The sports psychologist are supplying information on how to train the brain while we train the body, developing systems and routines to help understand our game but I feel that fierce desire is inbuilt and it is what's required to feed the attitude that is essential, not only go through that pain barrier but to continue to chase the dream of being the best. There are a number of good players but there are only a few great players! Remember to train the brain in every session you do!

Workload
If we stuck to common sense we would probably not need to mention this area. There is enough research information to help reduce injury risks for what is a risky business. The guidelines are out there for the adolescent and adult bowler, summary of the research can help gain an understanding of when the bowler is at their greatest risk of injury. It takes planning but make sure workloads are not an issue especially with young bowlers.

Directives for matches:		
Age:	Maximum overs	
Up to U13	4 per spell	8 per day
U14, U15	5 per spell	10 per day
U16, U17	6 per spell	18 per day
U18, U19	7 per spell	21 per day
Practice session guidelines:		
Age:	Max bowling sessions	
Up to U13	3 per week	
U14, U15	3 per week	
U16, U17	4 per week	
U18, U19	4 per week	

SENIOR GUIDELINES
There good evidence mounting on how to structure training and playing workloads. The ideal seems to be bowling no more than two days in a row with complete rest and then trying not to exceed more than three days off.

Coaching
To help in teaching a new skill or as in the case of the established player, remedy an inefficient action, there are a number of options that are used to help block the 'old technique' (identified technical problem) and overlay the 'new technique'. Once the new way has been identified then the process is to build the action to the point it can be reproduced in the game environment.

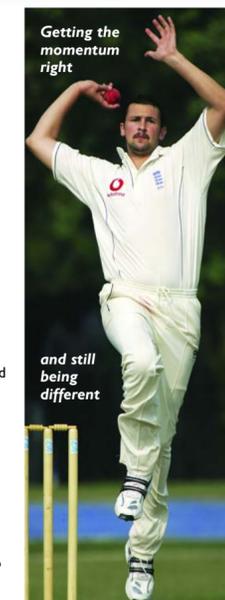
By moving through the progressions from the 'blocked' to 'random' environments and introducing different levels of interference to try and replicate the 'game pressures' the aim of shortening the learning time of the new skill is hopefully achieved. Depending on the person (their acceptance for change), the way they learn (sensory preference) and the complexity of the new skill, the progressions and the timing of the progressions will vary for each individual. The player needs to establish 'the minds eye' on finding a way of doing it.

There are other areas to think about before you see the results working in the game, for example, training indoors on hard surfaces then moving outdoors onto the soft grass. Actions break down, energy absorbed, this may also play a role in why they do it in the nets and loose the action in the middle!

There are a number of different approaches to introducing a new skill, listed below are examples you may like to research more on:
Quality Rating
Closed Eyes
Touch - Feel
Visual Cues
Physical Obstructions
Timing Cues
Imagery Cues
Back Chaining
Old Way / New Way

I believe as a coach you need to understand that players play the game for different reasons. What motivates them will give you an insight into how they approach their game. Your understanding of this is the foundation for being able to direct that player to the right environment, levels and the format of game which will suit them.

When applying your knowledge



Getting the momentum right

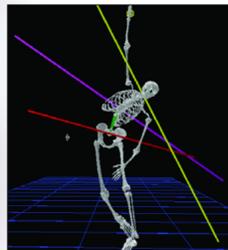
and still being different

use the common sense approach, resist jumping in to justify your existence as a coach, stand back, observe, observe again, break down the skill, record it and if there is any doubt get a second opinion! Once you have formed your opinion then the important process of the player sign off must be carefully achieved.

When do you need to intervene?
We are all subject to simple bio-mechanical laws but at times we develop our skills based on our body make up and our interpretation and implementation of the action. Some people act/move the way they do because it suits them and they adapt very well, so when do you make the call to intervene? Some examples to think of are, injury concerns (based on research available), looking to improve performance (fine tune the natural action to fit the biomechanical laws - efficiency), gut feel, if you think it is an exact science then think again!

When do they stop learning? The delivery of their skill is affected by so many variables, environment inconsistencies, ball inconsistencies, physical changes (length of bowling spells, getting old). They must be able to adapt and change with the different challenges presented so development of the basic skill set must be part of the development plan. Firstly cover the basic skills for survival in the game and then develop their game by Practice and Play to then hopefully thrive in it.

These are some of the challenges that coaches face with each player. Be ready to make a decision! Have a sound philosophy, listen, learn, help and lead. Make sure you understand that you are there for the PLAYER. Don't under rate your value but definitely don't over rate it!



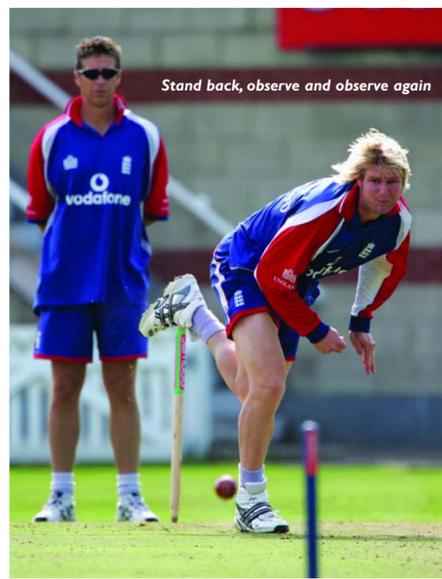
Science allows technique profiling to be absolute in measuring what you think is important.



Momentum drill 1
Getting the jump direction straight to the target



Momentum drill 2
Overloading the feel of the bodies balance as it drives through the run up and into the jump



Stand back, observe and observe again