

In the 100m sprint there are a few skills/techniques, which you can develop such as:

- Striding, (which I previously chose as my skill)
- Sprint start, sometimes using the blocks.
- Slowly rising your body while running in the region of 15-25 metres from the start.
- Sometimes people who run the 100 metres start leaning their body forward as they are getting closer to the finishing line. This is because there are other sprinters in the other lanes who also want to win the race and this kind of skill may help them to push their body across the finish line before the other sprinters cross.

The most important factors concerning my ability are gross motor ability and psychomotor ability. Gross motor ability involves actual movement, strength and speed. Psychomotor is the ability to process information regarding movement and then to put our decisions into action. In my activity it includes reaction time and limb co-ordination.

60-metre sprint test

Objective

To monitor the development of the persons acceleration and pick up to full flight.

Required Resources

To undertake this test you will require:

- 400 metre track 60 metre marked section on the straight
- Stop watch
- An assistant

How to conduct the test

The test comprises of 3 * 60 metre runs from a standing start and with a full recovery between each run. The person uses the first 30 metres to build up to maximum speed and then maintains the speed through to 60 metres. The coach should record the time for the athlete to complete 30 metres and 60 metres.

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1^{st} 60 metres= 7.96 sec 2^{nd} 60 metres= 8.02 sec Average speed = 8.26 sec 3^{rd} 60 metres= 9.82 sec
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60-metre sprint test, Analysis On my performance.

Skill/technique test	<u>Never</u>	Sometimes	<u>Often</u>
Perform a stand up or block start	\bigcirc	\bigcirc	(•)
Maintain a very erect posture with hips tall	\bigcirc	\bigcirc	•
Push off the track with ball of feet	\bigcirc	•	\odot
Move foot backward under body upon landing	\bigcirc	•	\odot
Drive knees up parallel to track (thigh is horizontal)	\bigcirc	•	\odot
Maintain high heel recovery as drive foot leaves ground	\bigcirc	\bigcirc	(
Maintain tall posture, slight forward body lean from ground, not from waist	\odot	O	•
Swing arms forward and back without rotating shoulders	\bigcirc	\bigcirc	O
Keep feet flexed, toes up	0	•	\odot
Sprint under control for entire race	\bigcirc	•	\odot
Totals	0	5	4

These skills are a comparison on how a professional athlete would do it. (An assistant who was watching my performance filled in this table.)



A strategy is a cognitive processes designed to achieve a goal for a task. In addition, a well-developed strategy should enable people to control the way in which they think in problem-solving situations.

A learning and performance strategy can be applied during the preparation period before the start of a 100 metres. During this period, I have the time to ready myself for the event. I can implement a set of mental behaviours that will presumably assist me to perform better. The suggested 3-step strategy can be used immediately before the race.

Last-minute preparation

In a typical situation, a few minutes before the start (e.g., 3-5 minutes), I spend some time by myself on the track. I am totally focused, and seem to ignore what is going on around me. I should use every second and minute to gradually buildup my self-confidence toward the coming event. I have to relax, but not too much. I have to plan my actions in advance, and be at my best on the blocks or the starting line. On hearing the gun, I should have reached the peak of my mental preparation.

Achieving this mental state may be fairly easy if it is done in a sterile performance environment, one in which no particular stress is put on the individual. If all the conditions around the individual are quiet, pleasant, and friendly, it is not complicated to 'clear the mind' and be in focus. However, as we all know, at a major athletics competition, the last-minute preparation takes place in a noisy stadium environment in which there is an enormous amount of visual and auditory distractions. There are many psychological and emotional obstacles to overcome, some of which are very hard to approach. In this challenging situation athletes have to achieve the highest level of proficiency. In this real-world situation, they have to perform at their best, and sometimes beyond it, to succeed.

These are the three main types of strategies relevant to my activity:

- Readiness
- Focusing attention
- · Being at the 'zone'

I will describe what should be done in each of the sub-strategies. Table 1 presents a suggested schedule for the instructions of the strategy before the start.

Sub-strategy	Periods of time to implement before the start	Emphasis	
Readiness	1-5 minutes before the start		
Stage 1	3-5 minutes before the start	General readiness for the race; the athlete is on the track	
Stage 2	1-2 minutes before the start	Specific readiness for the start; the athlete is on the blocks	
Focusing attention	30-60 seconds before the start	The athlete is on the blocks; concentrating on only one relevant and external cue of the track environment	
Being in the 'zone'	0-30 seconds before the start	The athlete is on the blocks; clearing the mind and letting the movements flow	

How I would react in these sub strategies:

Readiness

When preparing for the race, I must be psychologically, mentally, and physically ready to execute at my best ability. Ideally, I should know how to be in an awaken and active condition for the sprint to be learned/performed.

The readiness strategy includes two stages, which are executed one after another. Stage 1 is executed before the sprinter goes to the blocks, and Stage 2 is performed when he/she is on the blocks in a ready position for the start.

Stage 1: General Readiness for the Race

General readiness for the race can be achieved through the following procedures:

- Relaxing the body and the muscles of the legs
- Feeling the energy of the body and the mind
- Focusing only on the blocks and the near environment
- Thinking about the action of the start
- Imaging the stance of the body when standing at the blocks

When I am ready, I would move to the blocks or the starting line. When positioned at the blocks, the second stage of the readiness strategy should be undertaken.

Stage 2: Specific Readiness for the Start

Specific readiness for the start can be achieved through the following procedures. These are performed when the athlete is on the blocks:

- Feeling the stance of the legs on the blocks
- Feeling the distance between the blocks and legs
- Feeling comfortable on the blocks
- Feeling the force the legs generate
- Looking ahead. Imaging the act of the body during the start
- Imaging the explosion of the body from the blocks
- Imaging me performing the start to the best of my ability. Imaging the running style while moving on the track

Focusing attention

Being in the start position on the blocks, I have the time to select the appropriate cue and to focus attention correctly. When the same activity is repeated under almost the same conditions as in the competition, then I should be able to develop an optimal state of concentration. This in itself may reduce the negative effect of any potential distractors, thereby resulting in better performance.

The focusing attention step directs me to refine last minute concentration before the start. The next procedures should be applied a short period of time (e.g., 60-75s) before execution:

- Concentrating intensely on one relevant feature associated with the track, such as the lines of the track
- Thinking only of this specific cue
- Blocking out any internal thoughts such as "I wish I had more time to practice," or "I am not ready for this race"
- Blocking out any distractors such as the noise generated by the audience.

Being 'in the zone'

At the very peak of my mental preparation before the start of the race, I have to perform without thinking of anything. I should attempt to execute without being aware of what I am doing, and 'just do it'. Put simply, athletes should relax their mind and let their movements go ahead with minimum conscious effort.

In attempting to achieve the mental state of the 'zone', I should continue focusing attention on only one cue. During the focusing act I also have to:

- Clear my mind of thoughts
- Let the movement flow
- Perform the act without paying attention to details
- Perform the act as automatically as possible

Being in the 'zone' should be the prime goal of any sprinter. Feeling this mental mode a few seconds (e.g. 20-30s) before start should result in reduced anxiety, stress and irrelevant thoughts. I will feel 'on task' and ready to perform.

The elements of fitness:

- **Speed** the ability to perform a movement quickly.
- **Balance** the ability to maintain equilibrium while standing or moving.
- **Coordination** the ability to use the senses and body parts in order to perform motor tasks smoothly and accurately.
- **Power** the ability to transfer energy swiftly into force.
- **Reaction time** the ability to respond quickly.
- **Agility** the ability to rapidly and accurately change the direction of the entire body.

A 100m sprinter needs speed, strength, power but cardiovascular fitness and agility are less important.

I will carry out a number of fitness tests so I can get a picture of my current state of fitness. They will be relevant for my activity.

I have also recorded results from another sprinter at my standard in the 60 metres:

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1^{\text{st}} 60 metres= 7.63 sec

2^{\text{nd}} 60 metres= 8.01 sec

3^{\text{rd}} 60 metres= 8.34 sec

Average speed = 7.99 sec
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I worked out the average speed of my results and for the other sprinter by using this calculation: speed = distance / time

The average speed between both of us is 8.12 sec

As you can see from the results my speed is near the average but not as near as 7.99 seconds that was ran by the other sprinter. So in my opinion I am lacking the speed, which is needed to run for the 60-metre skill test, and also for the 100 metres.

Muscular strength

The ability to produce force in our muscles is very important in my sport. There are three main types of strength:

- ❖ Static strength this is the greatest amount of force that the muscles can generate.
- **❖ Explosive strength** − this is when we use our muscles to produce a very quick movement.
- ❖ **Dynamic strength** this type of strength is used by a sportsperson to support their own body weight over a period of time.

I will need explosive strength.

I will now do a fitness test for **power:** I will do a pull-up test, I will use a chinning bar and I will lift myself up, keeping my body straight. Then I will lower myself until my arms are straight. The bar will weigh 10 kg.

My results: 6 pull-ups Average = 6 pull ups

As I look at my results for power I can see that I have met the average, so this will be counted as one of my strengths in my activity.

The reaction time for my activity depends upon muscle fibres that we are born with.



A learning and performance strategy such as the 3-step strategy presented on the strategies page should assist me to enter the optimum zone before the start of a sprint race. The strategy may provide me with the cognitive means to promote my overall preparation. It will be of benefit for both the novice and the skilled sprinters only if it is practiced over a long period of time. My coach and I should spend a reasonable period of time on acquiring effective mental skills, as I typically do when attempting to acquire motor skills.

I can see that I have more strengths than weaknesses for my required fitness for my activity. But I still need to work on some of my techniques, I will be looking more closer at the ones which were filled in the 'sometimes' column so I can improve my overall performance.