

The sporting action of running is critical for participation in almost all sports. The ability to use an effective movement pattern to run will increase efficiency and allow appropriate modifications of speed and direction.

The correct sporting action for running should demonstrate the following :

FOOT RISE: After ground contact, the knee is flexed and the heel is brought close towards the buttocks.

KNEE DRIVE: After ground contact, the knee is flexed and the heel is brought close towards the buttocks.

FOOT CONTACT: The front of the foot makes contact before the heel. Contact is close to directly beneath the centre of gravity (foot touches under or just in front of hip) On contact the hip, knee and ankle flex to absorb forces of impact. The hip, knee and ankle joints extend powerfully against the ground to drive into the next stride.

ARM ACTION: As the right knee is rotated forward and upward – the left arm is swung forward & upward and – the right arm is swung backward & upward. Elbows are flexed to approximately 90 degrees. At the forward limit of the arm action, the hands are about level with the shoulder. At the backward limit of the arm action, the hands are level with hips or slightly behind.

TRUNK: Slight forward lean. Rotation of the thorax, shoulders and head should be minimal.



The Activity

Aim: To perform an analysis of the sporting action of running.

Equipment: Video camera if available.

Procedure: Observe the running action of one or more people and use the table below to analyse the movement pattern. If you have a mobile device available then record the subject's throwing action inside the apps mentioned in the resources section.

If the video is not being used the subject will throw enough times for adequate observation to take place and the table to be completed.

Video Analysis Apps

These apps allow you to record your performance and then review using the inbuilt annotation, sloe motion and drawing tools.



CoachNow
(iOS & Android)

Watch a tutorial of this app here

www.cpe.to/analysis

or scan the QR code!



Results

PERFORMANCE CRITERIA	ASSESSMENT		
	CLEARLY EVIDENT	EVIDENT	NOT EVIDENT
Foot Rise - heel is brought up close to buttocks.			
Knee Drive - hip is flexed and knee rises to just below the horizontal.			
Knee Drive - hip is flexed and knee rises to just below the horizontal. Foot contact is front of foot first.			
Foot contact is directly beneath centre of gravity.			
All of the hip, knee and ankle joints extend powerfully.			
LEFT arm swings forward with RIGHT leg and vice - versa.			
Elbows are flexed to approximately 90 degrees.			
Forward limit of arm swing is level with shoulder and back limit is level with hip.			
Trunk has slight forward lean.			
Minimal rotation of thorax, shoulders and head.			

SCORING: CLEARLY EVIDENT - 3 EVIDENT - 2 NOT EVIDENT - 0

Discussion :

1. Discuss the relationship between stride length and stride frequency.
2. Rate the subject(s) observed with a score out of 30.
3. Which phase(s) of the skill do the performer/s require more practice with? Suggest possible reasons for this.
4. List some sports or physical activities where the ability to run well is important.

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