RJT Workshops Week 1

Sprints & Shot Put

RJT Workshops Week 1

Sprints (60, 100, 200, 400m)

AIM: The fundamental goal in all running events is to maximise average running speed over the course of the race. To achieve this in the sprint events the athlete must focus on reaching and maintaining maximum velocity (speed).

Below is a broad "curriculum" that can be used for coaching kids and developmental athletes. Appropriate adjustments should be made according to the age and experience of the athlete.

1. Running Technique Posture

Focus:

- Run "tall" with high hips.
- Lead the action with the "belt buckle".
- No leaning back.
- A "tall" posture allows a full range of leg movement and a lighter, faster action. It is common for kids to run in a "sitting" position with their hips back and low. "Low" hips restrict the leg action and lead to heavy, slow movements.

Arm Action

Focus:

- Steady shoulders.
- Lightly closed hands.
- Driving arms downwards and backwards (rather than driving forwards and upwards).
- No crossing of the hands over the body's mid-line.
- A slight opening and closing of the elbow angle on the backwards and forwards swing.

Leg Action

Focus:

- A high knee, high stepping action.
- Ankles dorsi-flexed (feet pulled up towards the shins).
- Feet pointing forward.
- Ask the kids to imagine that they are running through shallow water. They need to step over the water rather than drag their feet through it.
- A smooth, balanced, efficient technique is the first priority.

2. Acceleration and Starts

Acceleration Technique

Focus:

- A forward lean from ankle to ears. Long line from ear, shoulder, hip, knee and ankle.
- Eyes down for the first few steps.
- All the power coming out of the top of the head during first few steps.
- A big arm action.
- Slowly rise to a tall sprinting position.
- Power
- Tell athletes to PUSH the ground away, in a back and downward motion.

Activities that help kids become more explosive include:

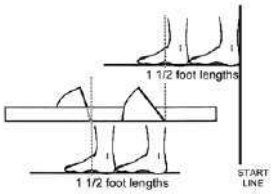
- Standing long jumps.
- Medicine ball throws.
- Starts from various positions. – Falling starts, kneeling starts etc.
- Resisted runs using sleds/bands/parachutes etc.
- Fun races/running games over short distances.
- Starting Technique

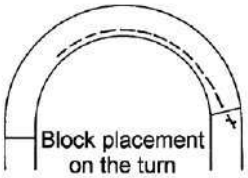
As required, according to the age and developmental stage of the athlete:

- Standing starts
- Crouch starts
- Block starts (from U13 blocks are mandatory in Athletics Ireland comps)

See Picture Sequence on next page for Block Set Up

BLOCK PLACEMENT AND ADJUSTMENT



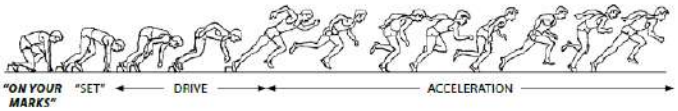


Objective

To set the starting blocks to suit the sprinter's size and ability.

Technical characteristics

- Front block is placed 1½ foot lengths behind the starting line.
- Rear block is placed 1½ foot lengths behind the front block.
- Front block is usually set flatter.
- Rear block is usually set steeper.



"ON YOUR MARKS" POSITION

COACHES SHOULD:

- Ensure that the blocks are appropriately set up for the athlete.
- Observe the athlete's posture including the head position.
- Check that the hand position is comfortable and correctly placed.

Objective

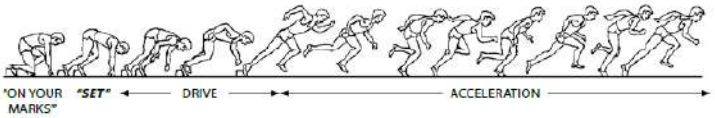
To assume an appropriate initial position.

Technical characteristics

- Both feet are in contact with the ground.
- Knee of the rear leg rests on the ground.
- Hands are placed on the ground, slightly more than shoulder-width apart, the fingers are arched.
- Head is in level with the back, eyes are looking straight down.

HELP ATHLETES TO:

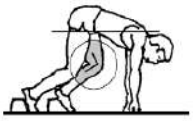
- Determine optimum block positions and spacing.
- Experiment with either leg in front to determine the 'strong' leg.
- Set up blocks in an efficient, confident and relaxed manner.
- Have a relaxed, focused attention on the starter's commands.



"SET" POSITION

COACHES SHOULD:

- Observe from the front and side.
- Observe the position of trunk and limbs.
- Ensure that athletes are stable.
- Confirm that the athlete's focus is on the sprinting from the blocks.



Objective

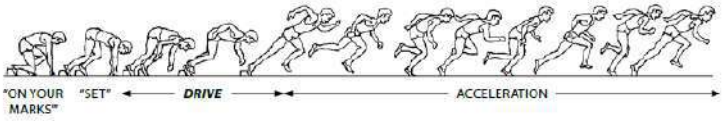
To move into and hold an optimal starting position.

Technical characteristics

- Heels press backwards.
- Knee of the front leg is at a 90° angle.
- Knee of the rear leg is at a 120°-140° angle.
- Hips are slightly higher than the shoulders, the trunk is inclined forward.
- Shoulders are slightly ahead of the hands.

HELP ATHLETES TO:

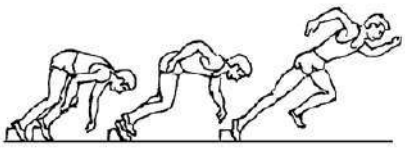
- Raise the hips in a smooth controlled movement and position the shoulders over or ahead of the hands.
- Be prepared to sprint, not listen for the sound of the gun.
- Feel the feet pressure on the blocks.



DRIVE PHASE

COACHES SHOULD:

- Observe the speed of reaction to the gun and the sequence of movement.
- Observe the speed and extension of the knee and hip joints.
- Ensure that the athlete optimises the drive from the blocks.
- Observe that the arms move quickly into a coordinated balance to the legs.



Objective

To leave the blocks and to prepare for the first stride.

Technical characteristics

- Trunk straightens and lifts as both feet press hard against the blocks.
- Hands lift from the ground together then swing alternately.
- Push of the rear leg is hard/short, the front leg's push is a little less hard but longer.
- Rear leg moves forwards rapidly while the body leans forwards.
- Knee and hip are extended during the drive.

HELP ATHLETES TO:

- Develop quick reactions to the gun through appropriate practices.
- Go on the 'B' of 'BANG'.
- Develop the power to move forcefully and explosively from the blocks.
- Pull the back leg through quickly.

3. Maximum Speed/Velocity

Opportunities to run at maximum speed over short distances with adequate recoveries.
Use wickets (mini-hurdles) to nail down technique for maximal speed running.
Use flying starts with a jog or skip build up over 10-20m, then a maximum sprint over 15-30m.

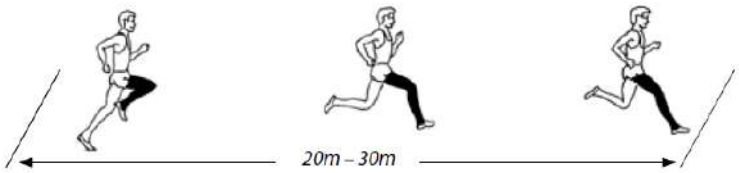
FLYING '30' – 20 TO 30 METRES SPRINT

OBJECTIVES:

To develop maximum speed.

TIPS:

- Maintain frequency throughout the speed zone.
- Keep arms fast and relaxed.
- Stop practice if cannot maintain speed.



- Mark a zone of 20m to 30m – depending on the developmental age and experience of the athletes.
- Always use 30 m approach with maximal accelertion.
- Run through the zone at maximum speed.

4. Speed Endurance (11 years of age and older)

Speed endurance is the ability to maintain speed over a distance.

To develop this capability in kids 11 years of age and older, use repetition runs over a moderate distance with good technique, rhythm and balance. E.g. 3 x 150m with 3 minutes recovery between each.

NOTE: This approach to speed endurance may seem mild compared to what some coaches program. When we do conduct speed endurance training, the focus is more on helping the athletes learn to maintain speed with a smooth, efficient technique rather than on "running the legs off" the kids. Don't push the kids. Anybody can make kids tired. Distances, speeds and repetitions are very gradually increased in very small increments. These increases only take place once the coach is sure that the kids can hold their speed and technique comfortably with the current load.

Summary

The focus with coaching sprinting to kids is to teach reliable technique, acceleration and starting skills, and develop power, maximum speed and speed endurance qualities. **Technique is the top priority with speed endurance being lowest priority.** This is all underpinned by the philosophy that the fundamentals must come first. TECHNIQUE, TEHCNIQUE, TECHNIQUE.

SHOT PUT

AIM: The goal in throwing events is to maximise the measured covered by the implement. The distance that the implement travels is determined by the following: **a) height, b) speed, c) angle**.

The movement of the shot put can be broken down into FOUR main phases: 1**) Preparation, 2) Momentum building, 3) Delivery, 4) Recovery.**

1) Preparation: Athlete grips the implement and assumes the position to start the momentum building phase.

2) Momentum building phase: athlete and shot move together as one unit in the beginning but then the athlete overtakes takes the implement in the glide phase.

3) Delivery: in this phase the velocity is stored, increased and transferred from the athlete's body to the shot and the shot is released. The link between the previous phase and the delivery phase is something called the **POWER POSITION** (i.e. when athlete has two feet on the ground. Sometimes called 'chin-knee-toe' position. See stickman image).

KEY Point (right handed thrower):

- Body weight over right foot, right heel lifted)
- Right heel and left toe lined up
- Backward lean against the direction of the throw

"Blocking" or "bracing" refers to the point at which the thrower is in their delivery stance and the non-throwing side of the body comes to a halt and is locked in place (see colour image across). This then acts as a pivot point around which the throwing side of the body can accelerate to release the implement. (i.e. A right-handed thrower will block the left side of their body as their right arm comes through). Think of the left side of the body acting like a hinge on a gate. To slam the gate shut, the pivot point must be fixed in place. Also useful is the analogy of a catapult, which relies on a fixed pivot point for its power.

4) Recovery: here the athlete braces against any remaining velocity and avoids fouling.

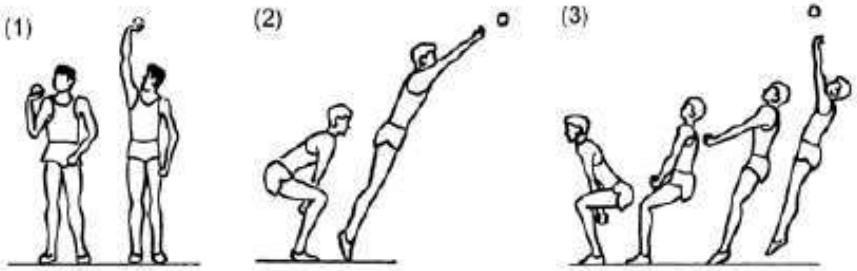
TEACHING PROGRESSION SHOT PUT

STEP 1 INTRODUCTION

OBJECTIVES:

To get used to the implement and the basic putting movements.

- Introduce the shot, safety measures and grip.
- Slow extension or push upwards.
- Flicking shot with fingers. (1)
- Forward two-handed toss. (2)
- Backward overhead, two-handed toss. (3)



TIPS:

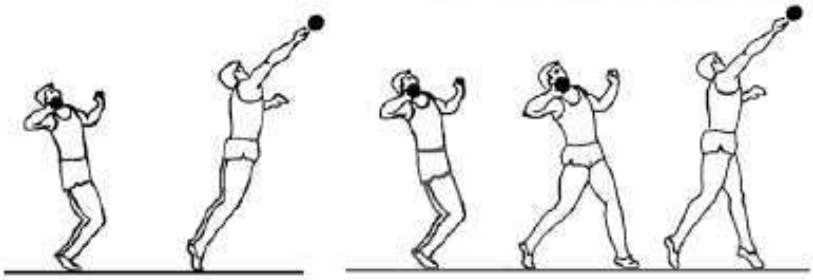
- 'Clean palm' in the grip.
- Legs before arms.
- Slow to fast.
- Finish 'tall'.

STEP 2 FRONT PUTS

OBJECTIVES:

To use legs for acceleration and learn the correct arm strike.

- Stand with feet shoulder-width apart.
- Wind up with bent knees, unwind and throw.
- As for previous drill, but step forwards on to the balls of feet.
- Maintain contact with the ground.



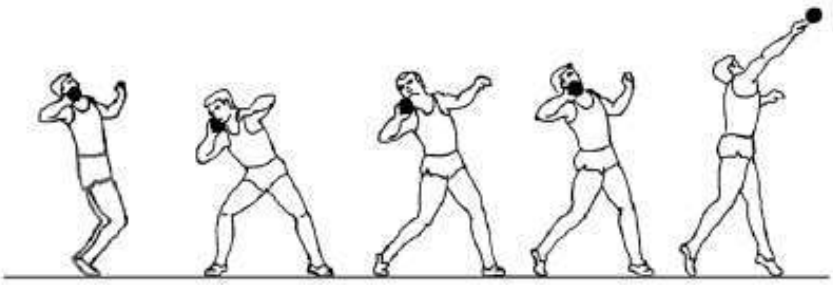
TIPS:

- Keep the right elbow high.
- Use an appropriate weight shot.

STEP 3 PUT FROM A STEP

OBJECTIVES:

To develop the activity of right leg and blocking of left side (leg and trunk).



TIPS:

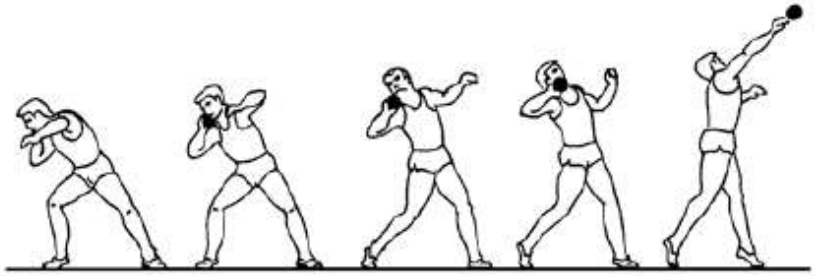
- Use the legs and twisting action to initiate the throw.
- 'Block' the left side and keep left shoulder high.

- Stand with feet shoulder-width apart.
- Step backwards, turning hip and shoulder against direction of throw.
- Continue with an immediate, forwards twisting extension of the legs and hips.

STEP 4 PUT FROM POWER POSITION

OBJECTIVES:

To develop the activity of right leg; turn of legs, hips, trunk and blocking.



TIPS:

- In the power position the alignment should be 'chin-knee-toe'.
- 'Punch a hole in the sky'
- Practice the recovery.

- Start with feet in the power position.
- Turn shoulders away from the direction of the throw, weight over the right foot
- Begin the put with the right leg and hip.
- Transfer weight from right to left.

STEP 5 GLIDE

OBJECTIVES:

To develop the glide action of the legs and link it with the delivery.

TIPS:

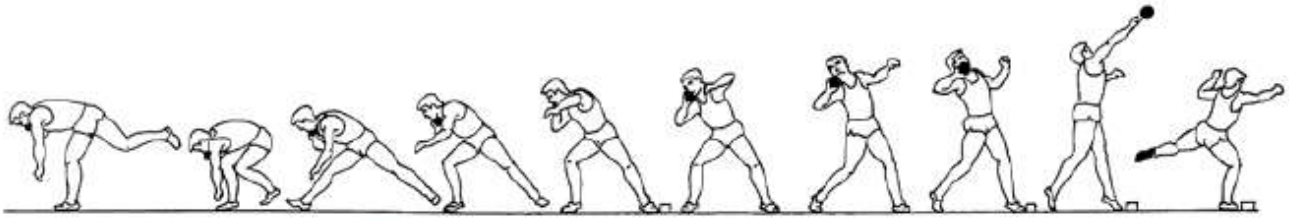
- Keep your shoulders to the rear in the glide.
- Don't hop, pull the right foot back under the body.
- Keep hips 'open' with correct right heel, left toe alignment.

- Glide with a partner holding the free arm. (1)
- Continue glide along a line, stop in power position (without/with release). (2)

(1)

(2)

STEP 6 WHOLE SEQUENCE



TIPS:

- Develop the speed and rhythm of the put.
- Be explosive through the delivery and release.
- Think of the whole sequence.

OBJECTIVES:

To link the phases into a complete movement.

- Perform without and with the shot, controlling and correcting the power position.
- Perform on different surfaces, with eyes closed, different implements (e.g. medicine balls) and different shot weights.

Useful Cues

- "Turn and PUSH"
- "Wave goodbye to the shot"
- "Thumb down, elbow high"
- "Wrap, unwrap, snap"

Med Ball Exercise Examples:

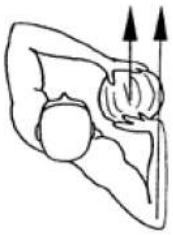
EXERCISE GROUP 2: PUTTING ACTION (SHOT PUT)

Forward and backward overhead throw

Variations:
- from turning movement (see backward slinging action)
- with different implements: medicine balls, stones, shots

Standing put

Variations:
- chest-pass
- with glide
- with two steps(left-right-left)
- from turning movement



Loading:

Exercise	Weight	Effect	Repetitions	Sets
Forward/backward overhead throw	3.0-4.0 kg	Strength	5-10	2-4
Standing put / with glide/steps	5.0-8.0 kg	Strength	5-10	2-4
Standing put / with glide/steps	2.0-6.0 kg	Speed	5-10	2-4

AAI Juvenile Implement Specifications

Table of Throwing Implements

Boys	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**
Shot	2k	2k	2.72k	3k	4k	5k	5k	6k
Discus			.75k	1k	1k	1.5k	1.5k	1.75k
Javelin		400g	400gr	500gr	600gr	700gr	700gr	800gr
Turbo Javelin	300g							
Hammer			2.5k	3k	4k	5k	5k	6k
Girls	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**
Shot	2k	2k	2k	2.72k	3k	3k	3k	4k
Discus			.75k	.75k	1k	1k	1k	1k
Javelin		400g	400gr	400gr	500gr	500gr	500gr	600g
Turbo Javelin	300g							
Hammer			2.5k	2.5k	3k	3k	3k	4k

Useful Links:

Sprints:
https://coachingyoungathletes.com/category/articles/sprints/

Shot Put:
https://coachingyoungathletes.com/category/articles/shot-put/

References:

Website: https://coachingyoungathletes.com/

Book: IAAF Run! Jump! Throw! – The Official IAAF Guide to Teaching Athletics

Book: Conditioning Young Athletes – Michael Carrera and Tudor Bompa (2015).

RJT Workshops Week 2

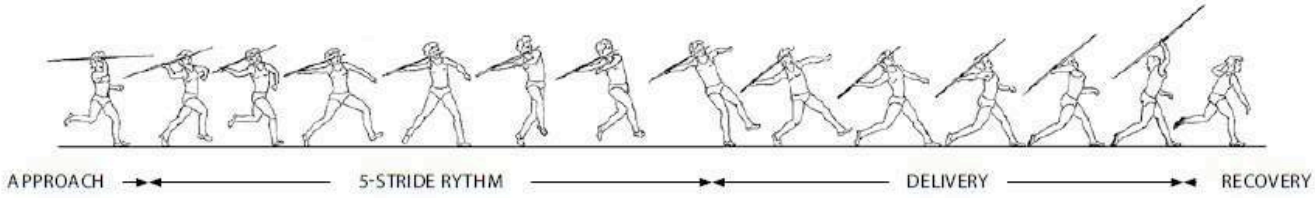
Javelin & High Jump

RJT Workshops Week 2

Javelin

AIM: The goal in javelin, like Shot Put, is to maximise the distance covered by throwing the implement. The distance the implement travels is determined by the following: **a) height, b) speed, c) angle**.

The movement of the javelin can be broken down into FOUR main phases: **1) Approach, 2) Momentum building (5 stride rhythm), 3) Delivery (part of the 5 stride rhythm) & 4) Recovery.**



Javelin Throw – Whole Sequence

Phase Description

The javelin throw is divided into the following phases:
APPROACH, 5-STRIDE RHYTHM, DELIVERY (which is part of the 5-stride rhythm) and RECOVERY.

- In the approach phase the thrower and javelin are accelerated.
- In the 5-stride rhythm phase they are accelerated further as the thrower prepares for the delivery phase.
- In the delivery phase additional velocity is produced and transferred to the javelin before it is released.
- In the recovery phase the thrower braces and avoids fouling.

Grip/Controlling Tip of Javelin

Many athletes "lose control" of the javelin as they begin the delivery action. One reason for this is that instead of the tip of the javelin pointing in the direction of the throw, the tip is pointing in some other direction. This can lead to a poor throw, and in extreme cases, shoulder and elbow injuries.

To get the best result the javelin tip should be aimed in the direction that the athlete wants the javelin to travel. A helpful saying to remember is: **"Elbow high, palm to the sky, keep the tip close to your eye"** to describe the position and alignment of the arm, hand, and javelin just prior to delivery. (See elbow, palm and javelin tip positions in pic below)

As well as aligning the javelin properly, it is important that young athletes use an overarm throwing action – where the javelin passes above their shoulder (like a tennis serve action) – and the tail of the javelin follows the tip as they pull the javelin through. All the athlete's power needs to be directed through the point of the javelin.

Remember:

- Elbow high, palm to the sky, keep the tip close to your eye.
- The javelin passes over the shoulder.
- The tail of the javelin should follow its tip.
- Direct all power through the point of the javelin.

Teaching Progression of Javelin

Standing Throw

AIM: To introduce the basic javelin throwing action. To teach control of the javelin.

Set Up: Place a target, such as a hoop, 5-10m in front of each thrower. Using a target is a good way to emphasize accuracy and usually results in a tidier technique.

Activity:

- Stand with feet parallel, shoulder-width apart, toes pointed in the direction of the throw, body square to the target.
- The javelin is held directly above the head or throwing arm shoulder, with arm bent and elbow forward.
- The point of the javelin and the non-throwing arm should be pointed directly at the target.

From here, the javelin is thrown in a straight line at the target.
The release of the javelin from the fingers should cause the javelin to rotate (clockwise for a right-hander) creating stability in flight.
Emphasise that the tip of the javelin must always be pointing at the target throughout the entire action. Look out for athletes who unwittingly lose control of the tip and wave it in all directions!
The throwing action is a "pulling", not a "pushing" action.
Allow a slight withdrawal of the javelin in preparation to throw, as long as the javelin remains pointing at the target during the withdrawal.

Skill Extension:

- Move the hoops further away from the throwers.
- Use the above arm position and throwing action, but with the foot opposite the throwing arm forward in a throwing stance. (i.e. Left foot forward for right-handed thrower). Ensure both feet are pointing in the direction of the throw.

Step & Throw

Aim: Introduce an element of timing into the throw.

Set Up: As above.

Activity:

- Start in the standing throw preparatory position, as described above.
- Keeping the javelin pointed at the target and close the head, slightly withdraw the javelin by extending the throwing arm back.
- Holding the arm back, step forward onto the foot opposite the throwing arm (i.e. a right-handed thrower steps on to the left foot).
- Throw the implement at the target by pulling it forward and through in a smooth action.
- To encourage correct timing, use the cue "step-throw". The javelin should be held back and not pulled forward until the front foot is firmly planted on the ground.
- Ensure both feet are pointing in the direction of the throw.

Walk & Throw

Aim: To introduce the approach.

Set Up: As above but throwers start a few paces back from the delivery point. Be aware that this may mean moving athletes who are waiting for their turn a little further back.

Activity:

- Start in the standing throw preparatory position, as described above.
- Keeping the javelin pointed at the target and close to the head, slightly withdraw the javelin by extending the throwing arm back.
- Holding the arm back and keeping the javelin level and pointed forward, begin a walking approach of 3-5 steps.
- Stepping onto the foot opposite the throwing arm, pull the javelin through to release it.
- Emphasize control of the javelin during the approach and the delivery.

Skill Extension:

- Allow the athletes to withdraw the javelin during the approach.
- Some athletes may be able to attempt quicker last two steps prior to delivery. The idea is to get the front foot quickly on the ground during the last stride. Therefore, the rhythm from third-last to last step will be "3.....2-1" (i.e. for a right-handed thrower: "left.....right-left").

Withdraw & Throw

Aim: To teach the athletes to throw from a withdrawn position.

Set Up: As for the standing throw.

Activity:

- Begin as for the standing throw with one foot forward.
- Turn the shoulders 90 degrees away from the direction of the throw.
- Extend the throwing arm back so that the hand is higher than the elbow and the elbow is level to or higher than the shoulder.
- The palm of the throwing hand should be under the javelin ("pointing to the sky").
- Hold the javelin level along the throwing arm, with the tip pointing forward at approximately eye level.
- In a smooth, continuous action, the javelin is pulled forward and thrown over the shoulder in a "tennis-serve-like" action.

Skill Extension:

As before, progress the athletes through:

- A "one-step" throw
- A "walking throw"
- A walking throw with a quick last two steps.

a) Run & Throw – Three Steps

A right-handed thrower will stand with the right foot forward and the right arm back, holding the javelin.

The three step consists of a first step onto the left foot, then a low "jump" onto the right foot and a final quick step onto the left foot into a throwing stance before pulling the javelin through.

b) Run & Throw – Beyond Three Steps

To teach a longer run-up, the coach simply asks the athletes to add two strides at a time. i.e. A 3, 5, 7, 9. . . etc. step run-up.

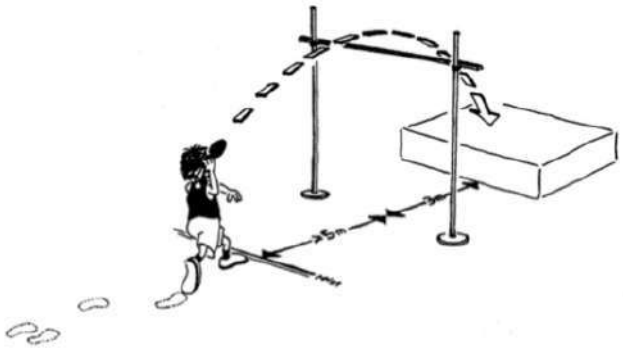
Once moving beyond a five-stride approach, athletes may wish to carry the javelin above their shoulder for a number of strides, taking the javelin back into the withdrawn position a few steps before throwing.

JAVELIN GAMES/EXERCISES/DRILLS

EDUCATIONAL CARD: PRECISION THROW

Analysis of the situation: Throw a light implement at a target.
Master balance and control the leeway and intensity.

Safety of the participant: Selecting safe throwing implements and organising the group for throwing practice should be the best way to reduce the risks at the most.



Educational Card 2: Kids' Javelin Throw

Objective: **To improve the run-up command**

Proposed situation: After 3 walking steps carry out a football throw into touch with a ball, or a light medicine ball.

The beginner's behaviour: Beginners will stop before throwing, and their pelvis will move backwards upon the acceleration of the medicine ball.

Instructions for the exercise:
- Throw from a left foot take-off (for a right-handed thrower)
- Keep the ball high above the head

Noticeable points:
- Do not stop and throw
- Move forwards after the delivery
- Keep facing the direction of the throw
- Keep the hands high above the head to throw

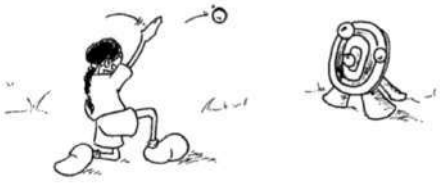
Teaching progression:
- Vary the trajectories (high, low, straight, etc.)
- Practice take-off from both sides
- Move towards games

Educational Card 2: Knee Throw

Objective: **To improve the throwing action with the top of the body**

Proposed situation: Kneeling on one knee, move the upper half of the body to initiate the acceleration of an object thrown to a target (use a light implement of 1kg maximum).

The beginner's behaviour: Beginners often lose balance during the throw.



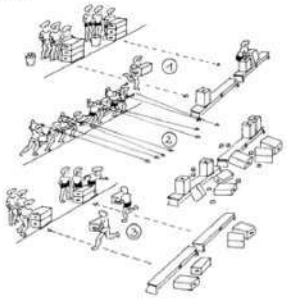
Instructions for the exercise:
- Maintain a well-balanced position
- Block the pelvis during the throw

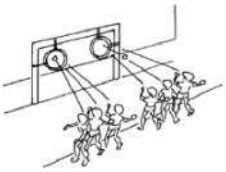
Noticeable points:
- The trunk initiates a long and continuous acceleration
- Coordinate trunk/arms
- Precise trajectories

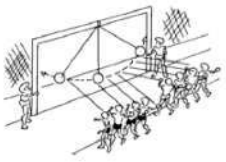
Teaching progression:
- Vary the implements
- Vary the distances and trajectories
- Vary the position of the throwing object (overhead, at the chest level, from the R/L sides)
- Proceed to exercises more like games

GAMES TO INTRODUCE THE JAVELIN THROW

"Throwing and sprinting":
Athletes sprint with boxes to set up the targets, then return to the throwing line. After the targets are knocked down they sprint to collect the boxes.







"Hit the targets":
Athletes aim at bicycle tyre hung in the top corners of a football goal or at a ball swinging from the crossbar.

HIGH JUMP

AIM: The goal in jumping is to maximise either the measured distance or height that the athletes jump. Several very important commonalities exist among the jumping events and an understanding of them will help a coach working with athletes in this event group. The distance and height are determined mainly by the following three parameters: **a) velocity at take-off, b) angle at take-off and c) height of centre of mass at take-off.**

The movement of the **HIGH JUMP** can be broken down into FOUR main phases:
1) Approach, 2) Take-off, 3) Flight, 4) Landing.

1) Approach: Should be fast (but appropriate to athlete's ability). Accurate/Consistent (i.ie repeatable time after time). A good approach should prepare the athlete for a successful take off.
2) Take off: Ensure that the centre of mass is as high as possible at the moment of take-off. Take off at the optimum angle (leaning away from the bar with take-off foot pointing toward back corner of mat). Take-off foot should be a fast 'pawing' action. Knee of the free leg is driven upwards along with the arms. Hip, knee and ankle joints are fully extended.
3) Flight: To minimise the travel distance of the athlete through the air. The high point should be directly over the top of the bar to ensure the athlete clears successfully.
4) Landing: The goal is to always land safely on the correct surface/mats to avoid injury.

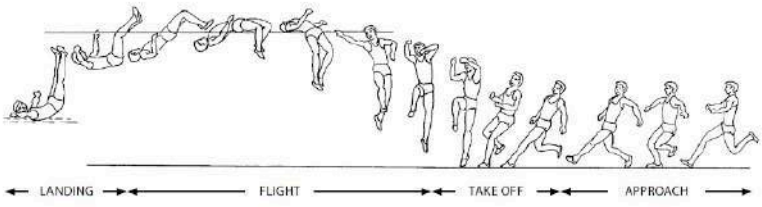
Points to REMEMBER:

- Increase stride frequency at the end of the approach.
- Active foot plant with the entire sole of foot at take-off.
- Forceful lead/free leg.
- Full extension of hip, knee, ankle.

Points to AVOID:

- A decrease in speed during approach.
- Lowering of the centre of mass.

NOTE: High mechanical load of high Jumping exercises on entire body (especially the ankle and knee joint can lead to injury if overloaded).



High Jump– Whole Sequence

Phase Description

The high jump is divided into the following phases: APPROACH, TAKE OFF, FLIGHT and LANDING.

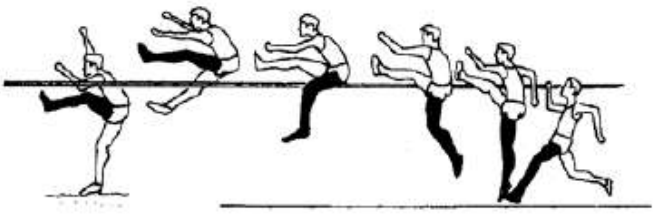
- In the approach phase the jumper accelerates and prepares for the take off.
- In the take off phase the jumper generates vertical velocity and initiates rotations necessary for bar clearance.
- In the flight phase the jumper rises to the bar and then clears it.
- In the landing phase the jumper safely completes the jump.

TEACHING PROGRESSION HIGH JUMP

STEP 1 SCISSORS JUMP

OBJECTIVES:

To improve the vertical take off.



TIPS:

- Accelerate into the jump.
- Keep your approach to 5-7 strides.
- Take off and 'hold' an upright position while you 'scissor' your legs.

- Use straight approach.
- Plant take off foot in line of approach.
- Gradually increase height.
- Use standing landings only - on free leg.

STEP 2 CURVE RUNNING

OBJECTIVES:

To feel the inward lean and the rhythm of the approach.

- Run in and out of cone markers.
- Run fast but controlled.
- Increase speed when entering each curve.
- Variations: 'high-knees' or high frequency.

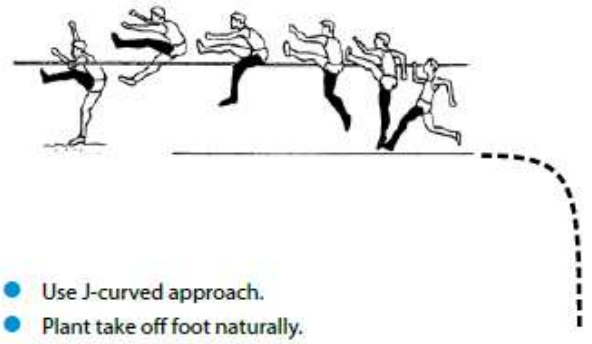
TIPS:

- Fast into the curves.
- Look ahead rather than at the markers.
- Run 'tall' even when leaning.

STEP 3 SCISSORS JUMP FROM CURVE RUNNING

OBJECTIVES:

To learn to jump vertically off a curved approach.



TIPS:

- Run the curve fast but controlled.
- Accelerate into the jump.
- Take off and 'hold' upright position.

- Use J-curved approach.
- Plant take off foot naturally.
- Gradually increase height.
- Use standing landings on sand - on free leg.

Scissors Jump

An athletes first high jumping experience should involve using the scissors technique. It is safer, and more suitable for inexperienced youngsters. It should not be seen as an outdated technique but viewed as a vital part of the teaching process. Skipping this important progression may endanger the athlete with never reaching their full high jumping potential. Even with experienced athletes it should remain part of their jumping sessions from time to time.

Run and Leap onto the Mats – No High Jump Bar

Aim:

- To give the athletes confidence in leaping up onto the mat.
- To develop a basic scissors take-off.
- To determine the preferred take-off leg.
- To develop a feet-first landing position.

Activity:

- The athletes run in a controlled manner directly at the mats and, taking off from one foot, leap up onto the mat to land on the other foot. The athlete's forward momentum may see them take several steps forward on the mats after landing.
- Ensure that the athlete takes off from one foot and lands on the other foot before the take-off foot is also brought down for balance.
- Ensure an upright (i.e. on feet) landing position on the mats.
- Make sure that athletes don't slow down or stop before taking off. It is a continuous, flowing action.
- Instruct the athletes to come to a stop on top of the mats and, if using the higher style mats, carefully climb down afterwards.
- It may help to tell athletes that the action is a "step" up onto the mats. Asking the athletes to "spring" or "pop" up onto the mats can also be useful.

NOTE:

With a large group, it is worthwhile to organize this activity so that two to three athletes are active at once, which cuts the waiting time. Depending on the size of your landing area, split the group into two or three lines side-by-side, and several metres apart, facing the mats. This will allow more than one athlete to run in and jump at a time. This can be done very safely if you clearly indicate that the athletes MUST land on their area of the mat. This can be further emphasized by dividing the runway with ground markers and the landing area with elastic bars, skipping ropes, etc. Try to keep the group moving through quickly, but make sure that the mats are clear before you give the signal for the next athletes to have their turn.

Skill Extensions:

- Once you can see that the athletes have confidence in leaping up onto the mats, gradually introduce the following technical points:
- A "tall" take off position. The head should be up, eyes looking forward.
- A high lead knee drive on take-off.

- A quick last-two steps on take-off. (Very young athletes can grasp this concept).
- Encourage the athletes to try to "float" or "freeze" in the air after take-off to attain more height and time in the air.
- Ask the athletes to note which is their preferred take-off foot.

SCISSORS ONTO MATS – NO BAR

Aim: To introduce the basic scissors high jump action from an angled approach.

Set Up: The athletes start from either the left or right-hand side of the mats depending on their preferred take-off leg (left-hand side for right foot take-off; right-hand side for left foot take-off) and line up behind a ground marker approximately 8-10 metres back from the mats and at a 35-degree angle to the front of the mat.

Activity:

- One at a time the athletes run in towards the mats and attempt to scissor jump onto the mats, landing in an upright, standing position.
- Tell the athletes that they are performing the same skill as before, the only difference is the angled approach to the mats.
- Ensure that the athletes use the correct take-off foot according to the side that they are running in from. The leg closest to the mats drives up first. Allow the athletes to change sides if necessary.
- Watch for athletes who run straight at the mats (as in the first activity). It can help to ask the athletes to aim for the far back corner of the mat when running in and taking off to ensure that their inside shoulder is alongside the mat at take-off.
- Encourage an accelerating run up to the mats. Watch for athletes who use a one-paced run up.
- Continue to encourage a quick last two steps.
- Encourage a driving up of the knee on take-off, rather than driving the foot up with a straight leg.
- Emphasize landing in a standing position.
- Talk to the athletes about landing safely in the centre of the mats. Indicate, or mark, a preferred take off area that will ensure that the participants will land safely on the mats. Encourage the athletes to abort attempts that do not bring them into this take off area.

SCISSORS ONTO MATS – WITH BAR

Aim: As above but with introduction of physical bar for athletes to clear.

NOTE: Please use elastic or 'bungee' bar where possible when working with younger athletes. Older athletes can also use bungee bar in training.

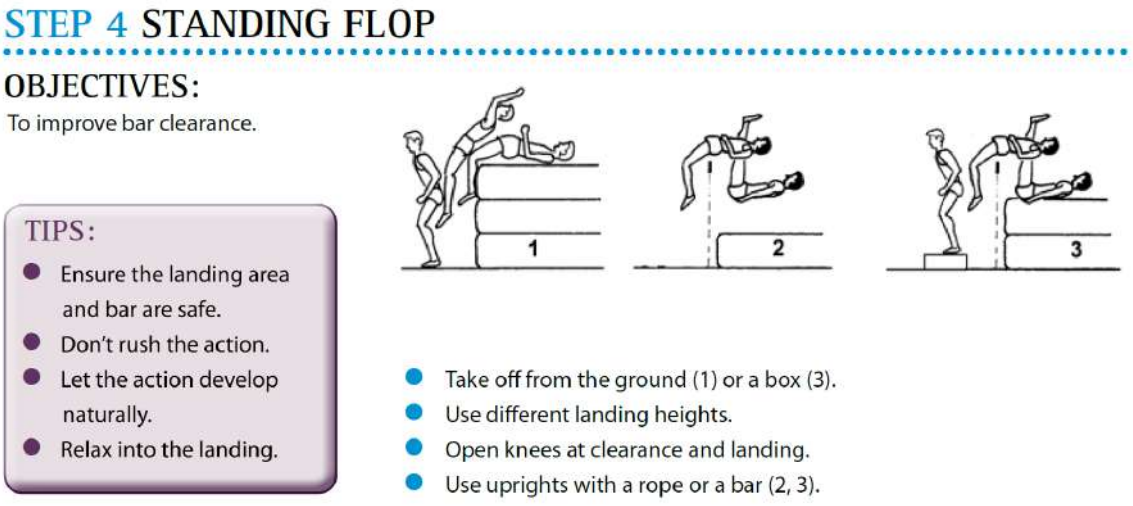
HJ – Running the Curve

The approach run is the key to high jump. The approach sets up an athlete's flight path and, if performed properly, allows the jumper to rotate correctly in the air when using the "flop" technique.

A "flop" high jump approach follows a basic J-shaped curve where the first few steps (3-6 steps) of the run-up are performed in a straight line and the last few (4-5 steps) are performed on a smooth curve. The straight part of the run-up should be used to build up speed, and the curve is used to build up forces that will allow the athlete to rotate correctly over the bar.

A 7 to 12 stride approach is suitable for most young athletes. During the approach, athletes should have long bouncy strides and active arms. The shoulders need to be held back and the hips high.

1) Standing 'Flop'. Here athletes should be instructed on the final part of the HJ sequence, the landing. Athletes most have a suitable mat to land on and be thought how to land safely and correctly. There are a number of drills to introduce this, see below image.



2) Start with elementary three stride approach from approx. 45 degrees to the bar. It is important to get athletes jumping from BOTH sides to improve competency and to ensure the more preferred side doesn't become overdeveloped. This will also reduce risk of injury.

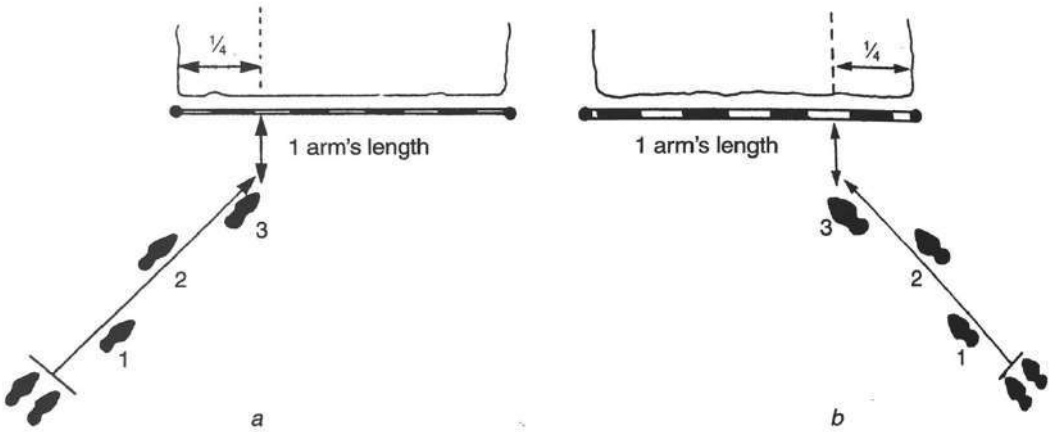


Figure 7.11 Elementary flop with a straight 3-stride run-up from the left (*a*) and from the right (*b*).

3) Introduce athletes to the concept of running in a circle. Place cones around a given circular area and instruct athletes to LEAN into the centre of the circle while maintaining an upright body position. This is an extremely important factor in high jumping and something development coaches overlook at times. Running in a circular motion will also help build ankle strength. Athletes should run in clockwise as well as anticlockwise directions to ensure development occurs evenly on both sides of the body.

See image below on how the **LEAN** should look.

Figure 7.13 Body position during the run-up.

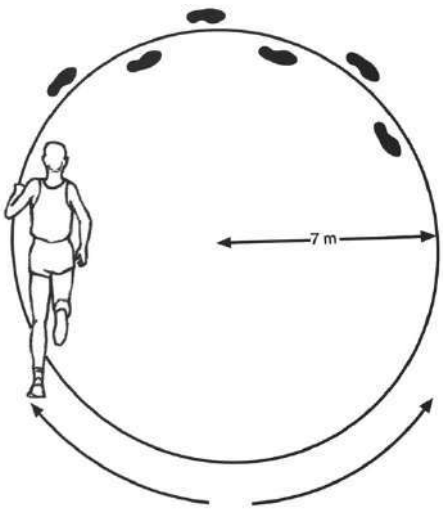


Figure 7.15 Orientation to a curved run-up.

4) Figure of 8 running/curve sprinting.

   Athletes run in a figure of 8 motion (as previously mentioned, this should be done in both directions for older and younger athletes alike). This again teaches running and leaning on a curve. Games and races can be developed from this to make it fun and interesting for athletes. Use of arms should also be exaggerated.

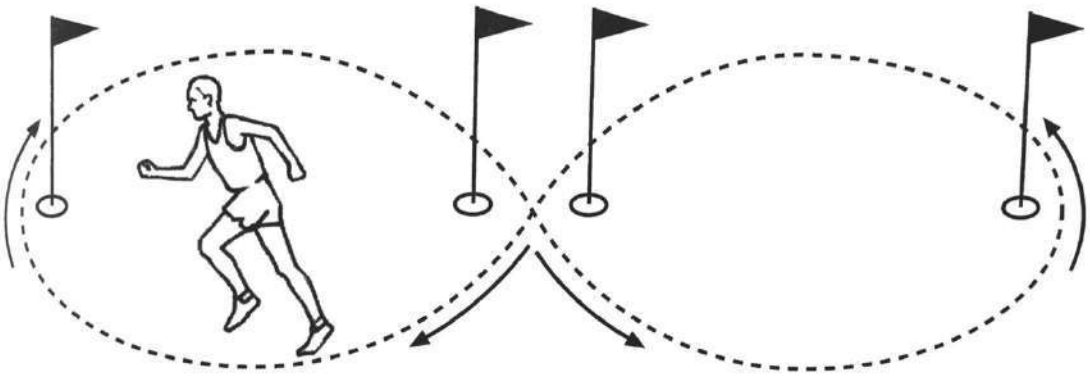


Figure 7.14 Curve sprinting.

5) Finally, all the pieces of the jigsaw can be implemented to get the athletes to 'FLOP' successfully and safely. This can be started from 3 strides, then 5 strides, working up to 7,8 or 9 strides, whichever is most suitable for the athlete depending on training age, actual age, experience and competence. It is important to point out again that an athlete should not advance to the next stage of any technical event until they have mastered the basics. TECHNIQUE, TECHNIQUE, TECHNIQUE!

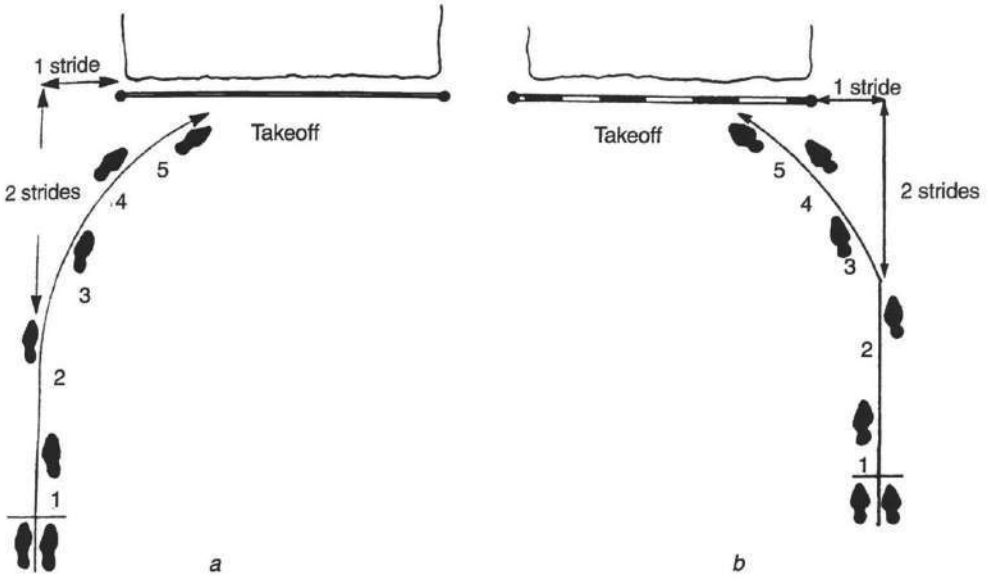
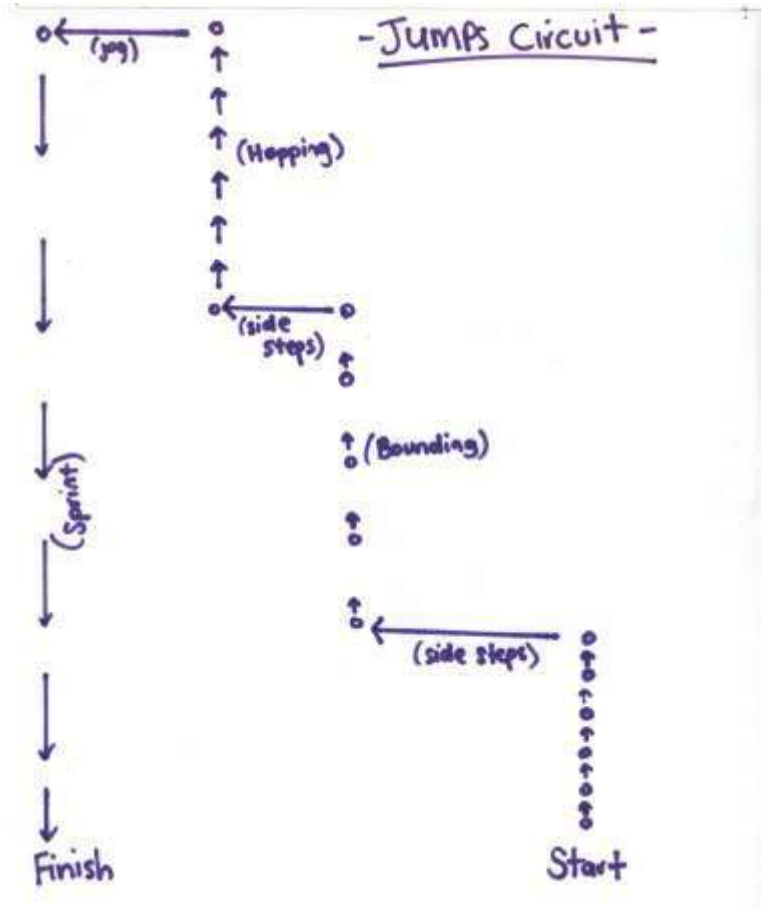


Figure 7.16 Elementary curved run-up from the left (*a*) and from the right (*b*).

HJ Jumps Circuit:



Description

1. From the start point, perform double foot ankle bounces forwards over each cone. Work on pushing off the feet and getting full extension at the ankle. Think about being "bouncy".
2. Side-step to the next cone.
3. Bound, trying to land next to each cone. Work on even bounds.
4. Turn to face the opposite direction (i.e. face the start) and side step to the next cone. Facing the opposite direction means that the athletes work both sides of the body during the circuit.
5. Hop, trying to get a good cycle with their hopping leg. Use large even hops.
6. Jog to the next cone.
7. Sprint to the finish.

MIX it up, be creative!

Coaches could give athletes a small break between repetitions if you were concentrating on quality of technique more than endurance.

Useful Links:

Javelin:
https://coachingyoungathletes.com/category/articles/javelin/

High Jump:
https://coachingyoungathletes.com/category/articles/high-jump/

References:

Website: https://coachingyoungathletes.com/

Book: IAAF Run! Jump! Throw! – The Official IAAF Guide to Teaching Athletics

Book: Conditioning Young Athletes – Michael Carrera and Tudor Bompa (2015).

Book: Fundamentals of Track and Field 2nd Edition – Gerry Carr.

RJT Workshops Week 3

Long Jump & Hurdles

RJT Workshops Week 3

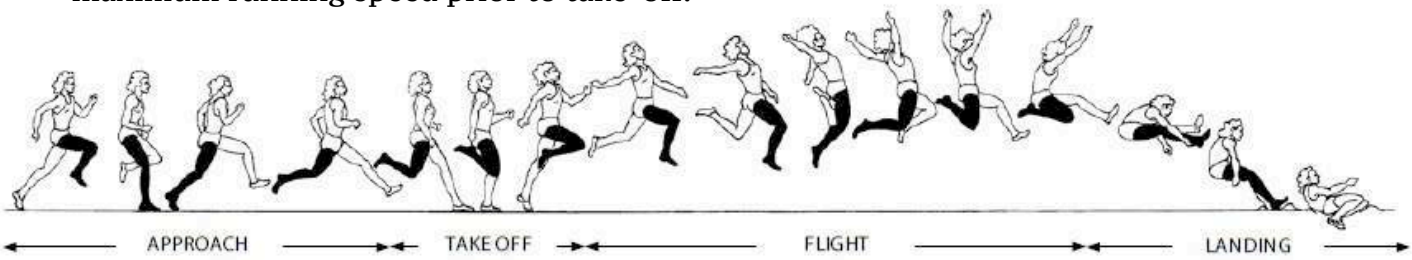
Long Jump

AIM: The goal in the horizontal jumping events it to maximise the measured distance of an athletes jump. Distance and height of flight through the air are determined similarly to the high jump: (**a) velocity at take-off**, (**b) angle at take-off** and (**c) the height of the centre of mass at take-off**. The velocity and take off angle are generally the most important factors.

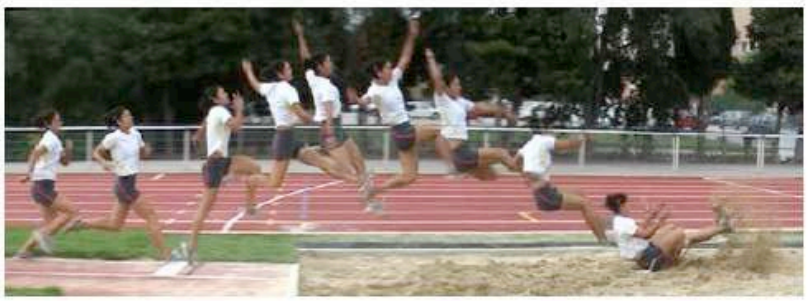
The movement of the long jump can be broken down into FOUR main phases:

1) **Approach**
2) **Take off**
3) **Flight**
4) **Landing**

In the long jump the final result is largely determined by the level of horizontal velocity (speed), and the objective is to get the athlete as close as possible to their maximum running speed prior to take-off.



Long Jump – Whole Sequence



Phase Description

The long jump is divided into the following phases: APPROACH, TAKE OFF, FLIGHT and LANDING.

- In the approach phase the jumper accelerates to maximum controllable speed.
- In the take off phase the jumper generates vertical velocity and minimises the loss of horizontal velocity.
- In the flight phase the jumper prepares for landing. Three different techniques can be used: sail, hang and hitch-kick.
- In the landing phase the jumper maximises the potential distance of the flight path and minimises the loss of distance at the touchdown.

Teaching Progression of Long Jump

Standing Jump Into The Pit

Aim: To give the athletes confidence in safely landing in the pit. To teach a safe two-foot landing. To teach the athletes how to use their arms to improve the distance of the jump.

Set Up: The athletes line up in groups along the side of the pit behind ground markers. A hoop can be placed at the front of each line to designate where the athletes must jump from.

Activity: The athletes perform a standing long jump into the sand pit. They briefly pause in their landing position, then quickly move out the way to allow the next person in line to safely jump.

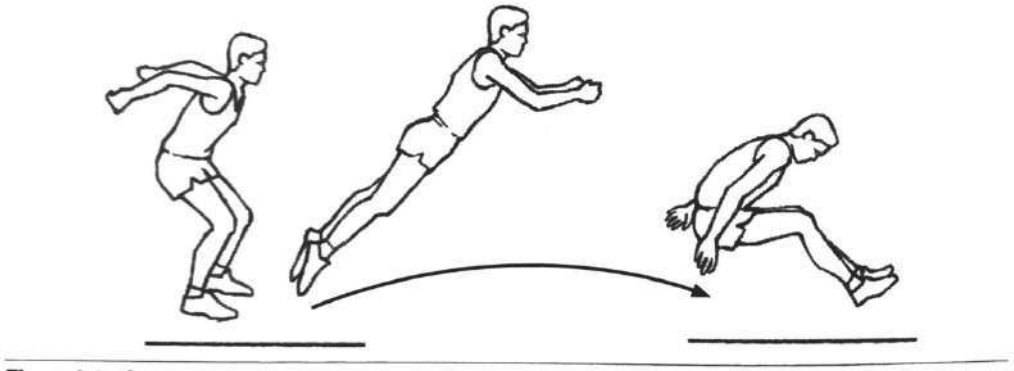


Figure 8.4 Standing long jump with a 2-legged takeoff.

- Teach the athletes to take off from two feet and land on two feet.
- Teach the athletes to bend their legs and swing their arms back when preparing to take off; to "stretch out" whilst in the air; and to "land like a frog" with bent legs in the sandpit. A simple coaching cue is: "Bend, stretch, bend".
- Instruct the athletes to swing their arms forward and up during take-off. Asking them to clap their hands above their heads whilst in the air can be a fun way to teach this movement. Alternatively, ask them to imagine that they are "jumping up and swinging on monkey bars" or "jumping up to swing on a trapeze".
- Teach the athletes to land with their feet close together and at the same time. ("Make one noise, not two when you land.")
- Watch for athletes who land with straight, stiff legs in the sandpit, or bend forward at just the hips, rather than at the knees. Encourage a "head up – bottom down" landing rather than a "head down – bottom up landing". Asking them to "make hand-prints in the sand" next to their feet or to "grab the sand" near their feet is also effective in helping to achieve a more correct landing position.

NOTE:

Ensure that the athletes do not jump until you have given the signal.
Try to keep the group moving through quickly, but make sure that the pit is clear before you give the signal for the next athletes to have their turn.

Skill Extensions:
Draw a line in the sand that the athletes have to attempt to jump past (Cue: "Jump the River").
A progression is to perform a standing long jump off one foot, with a two-foot landing (see image below). This can be a good (but not vital) skill link to the next activity.

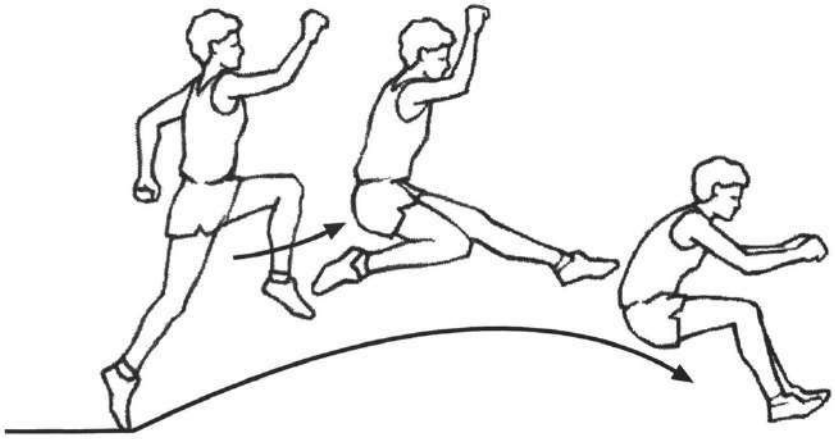


Figure 8.5 Standing long jump with a single-legged takeoff.

JUMP INTO THE PIT FROM A SHORT APPROACH – ONE FOOT TO TWO FEET

Aim: To introduce the basic long jump action using a one-foot take-off and two-feet landing.

Set Up: Same as standing long jump, but the athletes line up further back from the edge of the pit to allow for a run-up (3 – 5 strides approx.).

Activity: On the coach's signal, the athletes jog/run at an easy pace towards the edge of the pit and jump by taking off from one foot and landing on two feet in the sand. The coach might instruct the athletes to begin with a walking approach, particularly with younger or beginner athletes.

- Ensure that the athletes take-off from one foot and land with two feet together in the pit.
- Watch for athletes who take-off from two feet.
- Encourage the athletes to use the same landing technique as used for the standing long jump activity – "land like a frog".
- Watch for athletes who simply step or run into the pit and continue running through the sand. Instructing the athletes to "land like a frog" and to come to a complete stop on landing can help to fix this problem.

- Once athletes master a one-foot-take-off-two-feet-landing technique, remind them of the use of their arms. Asking them to pretend to run, jump and swing on the "monkey bars" or "trapeze" then to land "like a frog" and "make hand-prints" or "grab the sand" will help create a good basic long jump technique.
- If the athletes are jumping very flat, barely getting off the ground, ask them to "spring" or "pop" up and "push off their toes" when they take-off.
- An image demonstrating a long jump take-off position with arms extended above the head.

Jump to swing on a trapeze.

Skill Extensions:

- The athletes need to learn to take off accurately from a designated take-off area. Continue with the above activity, but ask the athletes to run in and take off from one foot placed in a hoop positioned at the edge of the pit. Be prepared that this can confuse some athletes who have had little long jump experience. Watch for a variety of errors such as taking off from two feet in the hoop, skipping into the hoop, jumping/stepping over the hoop, etc. Reverting to a walking approach may be required for some athletes.

The next progression can be done with a designated taker-off area or without:

- Draw a line in the sand that the athletes need to attempt to jump past i.e. "Jump the River" or two lines that the athletes need to land between i.e. "Jump into the River".
- Place a low object such as a mini hurdle at the edge of the pit that the athletes must attempt to jump over.

LONG JUMP FOR DISTANCE FROM A LONGER APPROACH

Aim: To allow the athletes to attempt the full long jumping action from a longer approach run.

Set Up: Same as in short approach work above.

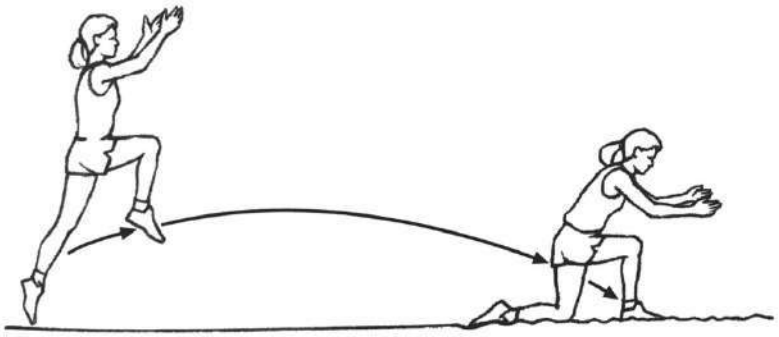
Activity: Coaches can use the same activities as above. The emphasis when working with development athletes should be on maintaining their speed on a longer run up, avoiding deceleration into the board or take off area. Instruct athletes to run to the board faster and with more aggression, concentrating on the last 3 strides being the fastest of all. The last 2 strides in particular of a long jump approach should be as fast and snappy as possible. Listening for audible quickness of the athletes' ground contacts can be great way to determine whether the athlete is doing this correctly. The image below shows a vocal cue which can be used in the last 5 strides of the approach:

Stride:	1	2	3	4	5	jump
Vocal Cue:	daa	daa	daa	daaaa	da	dap
Stride Length:	med	med	med	long	short	

Skill extensions:

- To teach athletes to jump for distance place a low, safe object such as a mini hurdle at the edge of the pit for the athletes to jump over. Alternatively, have two coaches/athletes hold a flexible elastic high jump bar at an appropriate height for the athletes to jump over.

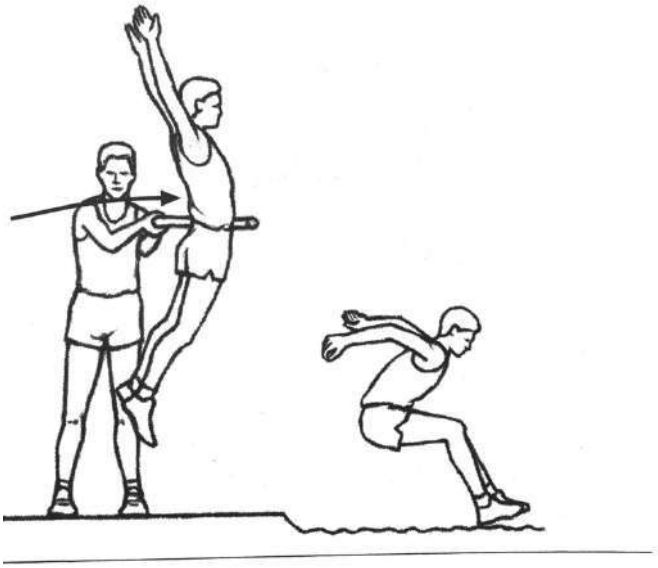
- Knee Drive drills: Emphasise the importance of driving the knee of the free leg UPWARDS on take-off. This should be an aggressive SWING or DRIVE UPWARDS of the knee. Telemark/Genuflect style jumps (i.e. landing in a kneeling position) in to the pit are an excellent way to train this skill (see image below).



- Ensure that the athlete is not looking down at the board on take-off. This can be done by holding an object (e.g. handle of rake) out and high over the middle of the pit. Alternatively get the athletes to concentrate on an object

beyond the pit (e.g. tree tops far in the distance) as they approach the board.

- Finally ensure that athletes push and extend hips forwards when in the air and at take-off. This can be emphasised again by an external cue of using a pool noodle or foam pipe insulation in the manner seen in the image below.



NOTE: The easiest and most effective technique to introduce to younger and developmental athletes is the 'Hang' technique. All the drills and activities mentioned previously use the hang technique.

Teaching The Long Jump Run-Up

Step 1:

Firstly, the coach needs to have an idea of what is an appropriate length run-up for a young athlete. This can be done by matching their age with a recommended number of strides in their run-up. As an approximate starting guide:

- 10 years = 10-11 strides
- 11 years = 10-12 strides
- 12 years = 11-13 strides
- 13 years = 12-14 strides
- 14 years = 13-15 strides
- 15 years = 14-16 strides
- 16 years = 15-17 strides
- 17 years = 15-21 strides

NOTE: If you choose to work off an ODD or EVEN number of strides ensure you stick with working with one or the other. This will become important later and will reduce the confusion over which leg to start from, especially with younger athletes.

Step 2:

Find out which foot the athlete jumps off. Is it their left or right foot that hits the board? This is their "take-off" or "preferred" leg.

Step 3:

Ask the athlete to show you how they like to stand at the start of their run-up. Is their take-off foot forward or back? If it is forward, the athlete will need to take an ***even number*** of steps in their run-up to ensure that this foot hits the board. If it is back, they will need to take an ***odd number*** of steps in their run-up.

(TIP: For athletes who "don't know" which foot they prefer forward at the start of a long jump run-up ask them to show you a standing "On Your Marks" racing position. The foot positioning that they use is generally how they will begin their long jump run-up).

Step 4:

Ask the athlete to stand on the runway with their back to the sand pit and with the heel of their front foot on the take-off board foul line. They should stand exactly as they would to begin a long jump run-up. The athlete then runs along the runway, away from the pit, and the coach counts their strides and places a marker (e.g. some tape) where the "take-off" (e.g.13th) stride falls.

Repeat the above three times (five times if possible) with adequate rest between. You will finish with 3 or 5 markers next to the runway, depending on the number of times you repeat the exercise.

Leave the middle of the 3 or 5 markers in place and remove the others. The remaining marker is where the athlete can begin to practice their run-up from.

TIP: Counting the athlete's run-up steps - To minimise mistakes with the coach counting every stride, the coach can instead count every 2nd foot contact (i.e. 1, 3, 5, 7, 9 etc.).

Step 5:

Allow now the athlete to "run through" the board from their mark. Stand at the board and observe where the athlete takes off from. Does the take-off foot strike behind or in front of the board? Is it perfect? Get the athlete to repeat this (with adequate recovery) 3-5 times. Adjust the run-up according to what is observed i.e. If the athlete is constantly 1 foots length over the board, the coach should recommend that the athlete now moves their mark backwards the same distance.

Other Long Jump Drills

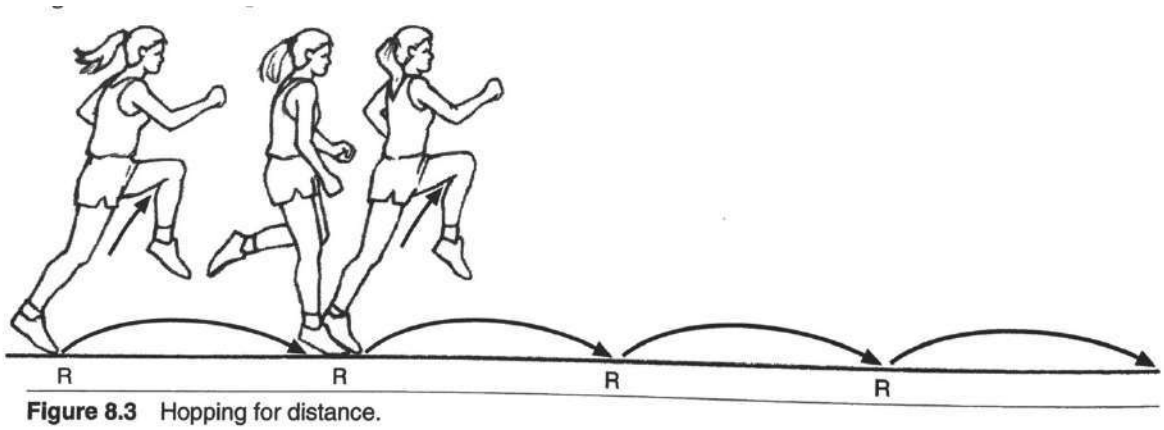


Figure 8.3 Hopping for distance.

- Hopping and bounding (both single and double leg) are excellent ways to build strength and power for long jump as well as other athletics events. Ensure they are conducted on a grass or soft surface and limit the number of hops/ground contacts in each session.

STEP 1 CONSECUTIVE JUMPS OVER OBSTACLES

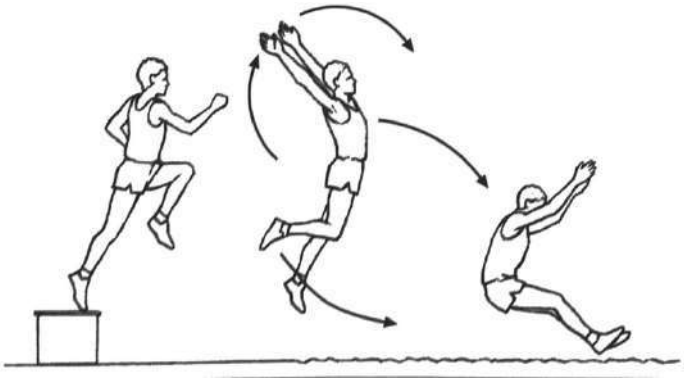
OBJECTIVES:

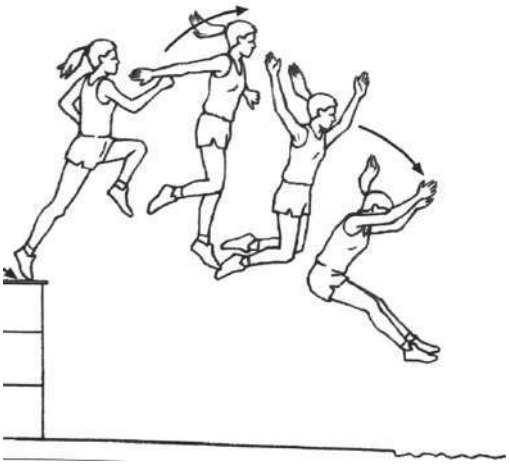
To take off from a short approach and improve the take off position.

- Use a short approach using either take off leg.
- Land on the free leg.
- Use a 3-stride rhythm.
- Height: 30-50 cm
- Distance: 6-8 m (increases with speed)

TIPS:

- Allow enough time for novices to determine their preferred take off leg.
- Look ahead rather than at the obstacle.
- Run and take off 'tall'.





- The use of boxes (both low and high) is a good way to coach long jump technique – the **flight** and **landing** phases in particular. Both lower and higher boxes give athletes a chance to feel what it's like to 'Fly' through the air. It can also allow athletes more time to land with both feet together as they have more time to correct their body position in the air.
- When jumping from boxes safety is TOP priority. They must be fit for purpose, and at an appropriate height to the athlete's age and ability. The coach must ensure that the boxes don't move or slip when the athlete is taking off or jumping.

TIP: All the above information is a guideline for introducing and improving at the LJ. Be inventive, mix up different drills and games involving both jumping and running. Tailor training activities to the athletes that you coach and what works best for them. Don't be afraid to try something new, once it is safe and suitable to the event.

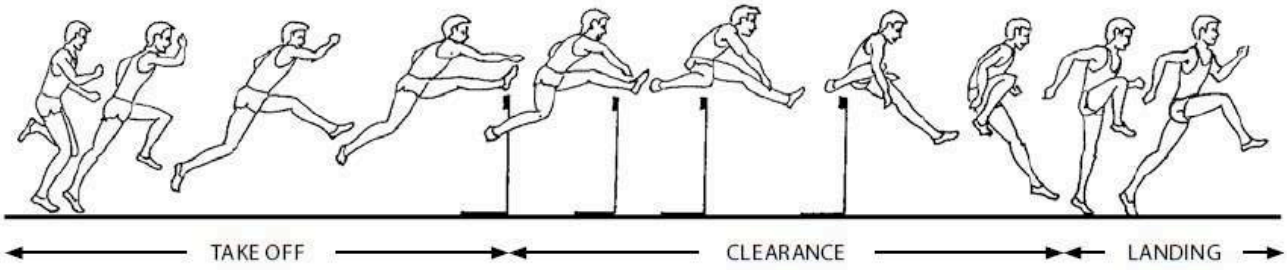
Hurdles

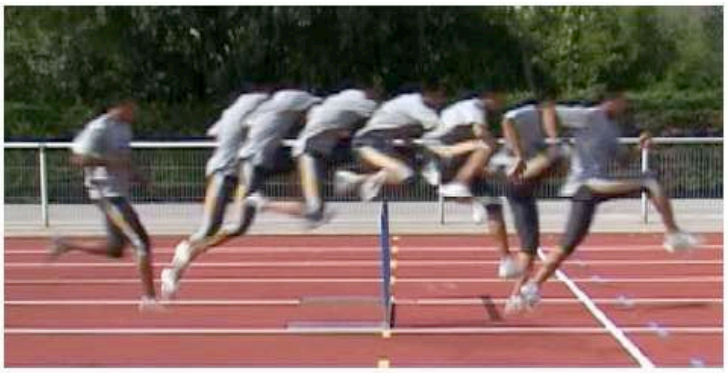
AIM: Similar to the sprints section detailed in Week 1 of the RJT workshops, the fundamental goal of the hurdling events is to maximise average running speed over the distance of the race. In the hurdles there are a set number of barriers to contend with depending on the race distance. Athletes must MINIMISE the amount of time spent in the air while clearing the hurdles and try to avoid hitting hurdles or other technical flaws which will cause a loss in momentum.

The sprint hurdles comprise of TWO main elements:

1) Sprinting between the hurdles

2) Hurdle clearance (which can be divided into take off, clearance and landing phases).





Sprint Hurdles – Whole Sequence

Safety Suggestion:
Use hurdles that suit the age and ability of the athletes (i.e. suitable weight/material). Use light plastic hurdles, mini hurdles, polystyrene foam hurdles etc. to build up athletes' confidence and competence before progressing to competition style hurdles. Avoid using competition heights too frequently in training until technique is honed and mastered. Hurdlers often train using lower height hurdles and reduced distances between barriers – this allows for greater running speed between the hurdles and minimises the potential for collisions with barriers.

Running over low hurdles at competition spacing's

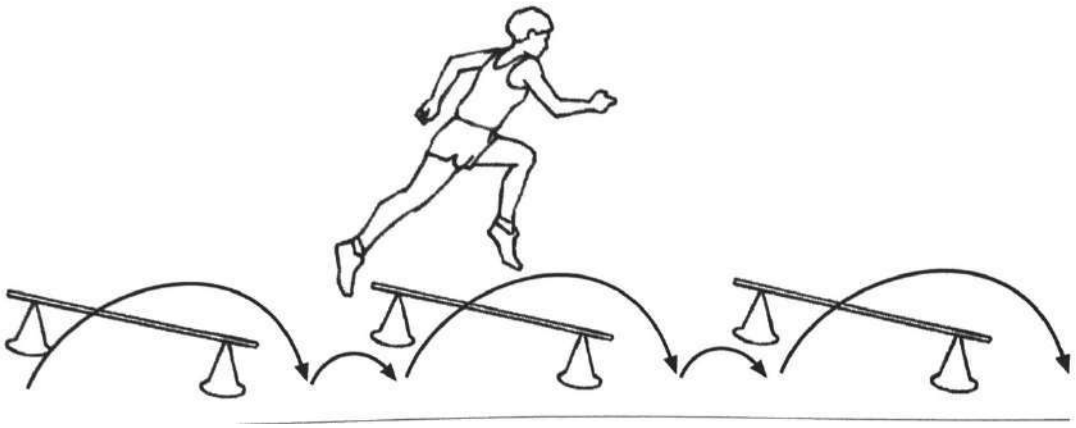
Aim:

- To teach a smooth, uninterrupted running action over low obstacles
- To introduce the concept of the lead leg
- To teach the basic stride pattern between the hurdles

Set Up: Mark a starting line with cones and set up two flights of mini hurdles (or other low objects) placed at the correct competition distance for the age group. Place cones on the ground where the third hurdle should be as a finish line.

Activity: From a standing start, athletes are asked to run fast from the start line, over the obstacles and through the finish line.

- Emphasise running fast with a smooth action and not 'slowing down' before or after the hurdles.
- Emphasise that clearing the hurdles should not interrupt the running action. Not 'jumping' the hurdles.
- Tell the athletes to maintain their speed until past the finish line.
- Allow the athletes to hurdle with whatever lead and trail leg action comes naturally.



Skill extension 1: After several run-throughs, introduce the athletes to the term 'lead leg'. To help gain awareness of their lead leg, ask athletes to note whether they are leading with the same leg over each hurdle. Also introduce the basic 'straight up and down' lead leg action, which should be easy to achieve over a low obstacle. The athletes may need to practice this technique a few times on the spot. Make sure they practice on both legs.

Repeat the first activity over the mini hurdles once or twice. Each time ask the athletes if they used the same lead leg or alternated.

Skill extension 2: Introduce the concept stride pattern. Explain that three or five strides (an odd number) will result in using the same lead-leg; using four strides (an even number) will mean that the lead-leg will alternate (This may need a walk-through demonstration from the coach). Competition-aged athletes

generally don't require more than five strides to cover the distance between hurdles.
Inform the athletes that it is okay to alternate their lead leg. A three-stride rhythm (leading with the same leg) is the ideal scenario, however, learning to run fast and maintain speed is more important in the early stages of learning the event.

Repeat the initial drill two more times, applying the additional information. Ask the athletes how many strides they took between the hurdles (They may need help from the coach's or an observer to determine this).

NOTE: Many young athletes are very one-side dominant when hurdling, preferring to lead only with either their left or right leg. This can cause stuttering and hesitation between the hurdles and the athlete slowing down in order to use their preferred lead leg. Athletes need to be encouraged to lead with both legs - this can be introduced from the beginning with low hurdle drills repeated on both sides of the body. Being proficient in hurdling off either leg is also important for overall athlete development and leaves the athletes better prepared for long hurdles (250, 300, 400mH) and the steeplechase if they chose to switch event as they progress.

Start Line to the First Hurdle

Athletes need to be able to run fast, aggressively, and without hesitation, to and across the first hurdle.

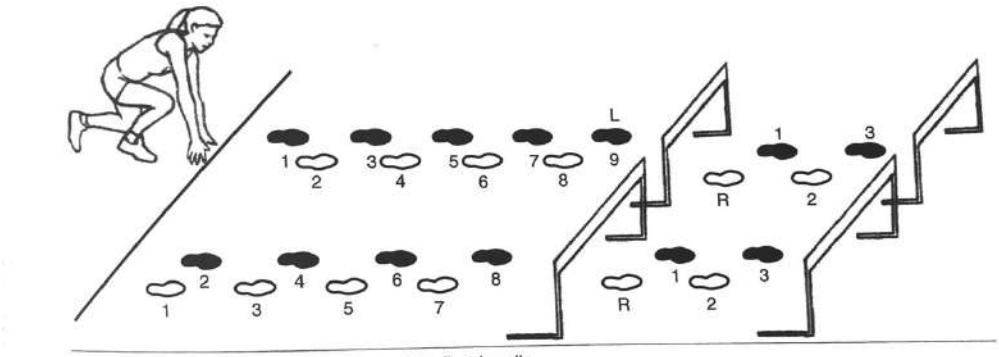


Figure 3.14 Sprint start and approach to first hurdle.

Many young athletes slow down, hesitate, and stutter, trying to ensure that they hurdle with their preferred lead leg. Alternatively, they clear the hurdle awkwardly with their non-preferred leg, often landing off balance or hitting the hurdle. This then affects their ability to cover the distance to the second hurdle efficiently.

This can be an ongoing issue for young athletes and there are multiple solutions – bigger strides, smaller strides, faster strides, however, there is one simple and very effective solution:

Switch the foot they have forward at the start.

If an athlete is continuously "wrong-footed'" at the first hurdle, swapping foot positions at the start should fix the problem immediately.

When successful, this simple switch can help an athlete who has lacked confidence in getting to the first hurdle to approach and clear the hurdle without hesitation.

Starting with their 'other' foot forward can feel unnatural in be beginning, however, once the change has a positive impact the athlete will become more comfortable. Suggesting that an athlete swaps their foot position at the start is one of the quickest, easiest and most reliable solutions to a frequent problem in hurdles events.

NOTE: Athletes should be able to clear a low hurdle comfortably with either lead leg. Many athletes will always maintain the same (preferred) lead leg and need to be encouraged to practice using both or alternating.

START LINE TO CLEARING TWO HURDLES

Aim: To allow the athletes to practice the full hurdling action.

Set Up: Set up two flights of 'foam-top' training hurdles at the correct competition distance for the age group, either at or below the correct height for the age group. Place cones on the ground where the third hurdle should be, as a finish line.

Activity 1: For this first activity, lay the second hurdle flat on the ground. From a standing start, athletes are asked to run fast from the start line, and clear the first hurdle, using a basic hurdling technique. The athletes step over the second hurdle and then run through the finish line. The height of the hurdle can be increased as the athletes' confidence grows.

Emphasize running fast to the first hurdle without slowing down or hesitating.
Reinforce the correct basic lead and trail leg action.
Introduce the concept of a smooth run to the first hurdle, arriving on the preferred lead leg without hesitating or slowing. Advise athletes that if they are having trouble achieving this, to try swapping legs at the start line.

Activity 2: Both hurdles are upright for this activity. From a standing start, athletes are asked to run fast from the start line, clearing both hurdles and through the finish line. The coach can set the hurdles at different heights to allow the athletes to grow in confidence through the activity (e.g. hurdle 2 lower than hurdle 1 to encourage athletes to attack the second hurdle).

Emphasise the same coaching points as in activity 1. Encourage a smooth transition between the hurdles for whatever stride pattern the athletes are using.

Skill Extension 1:

- If the athletes are performing the skills safely, you can introduce competitive training runs over two hurdles to the 'finish line'.

Skill extension 2:

- If there are a number of hurdlers being coached, a hurdles shuttle relay can be conducted. A traditional shuttle relay formation is used however each team occupies two lanes; a hurdles lane and a sprinting lane. Conduct the relay in a similar way to a traditional shuttle relay, but each athlete must run once over the hurdles and once on the flat track.
- While the hurdles is a highly technical event, achieving a basic and safe level of competence can be achieved in a short space of time.

START LINE TO CLEARING MORE THAN TWO HURDLES

Aim: To get athletes to hurdle from the start line over more than two hurdles.

Set up: As above. Adding more than two hurdles.

NOTE: For younger athletes who compete at 75/80m hurdles, running to 5 hurdles in training is sufficient. For older athletes, they may want to extend their runs out to 5-8 hurdles depending on their ability, time of year etc. Be prepared to reduce the height and spacing of the hurdles depending on age and ability, as well as during a session if the athlete is fatigued.

Hurdle Drills

NOTE:

- Hurdle drills are an excellent tool in your coaching toolkit for ALL athletes and can be easily incorporated as part of your warm up or main session. Athletes from all disciples (e.g. shot putters, distance runners, sprinters) can benefit from hurdle drills to increase hip mobility, endurance, and strength. There are a large variety of hurdle drills available – the coach should chose 5-10 that are most suitable and beneficial to their athletes.

- Drills should be completed using both LEFT and RIGHT sides to promote even development and improvements in technique. Repeat each drill 2 to 3 times on each side.

The following are some basic hurdle drills for lead and trail legs:

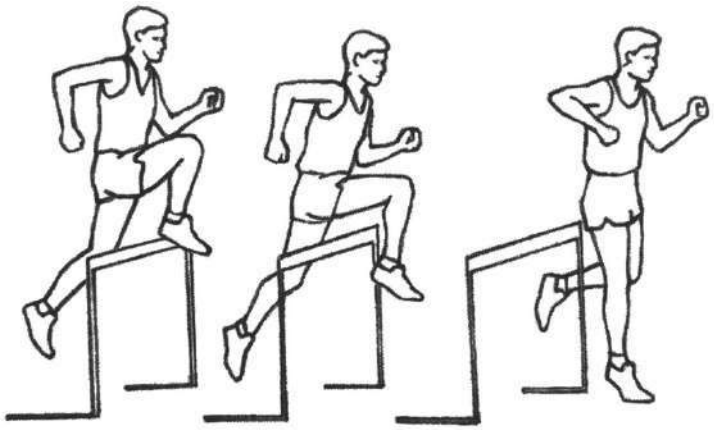


Figure 3.8 Leading-leg action with no lower leg extensions.

Figure 3.9 Two views of lower-leg extension over the end of the hurdle.

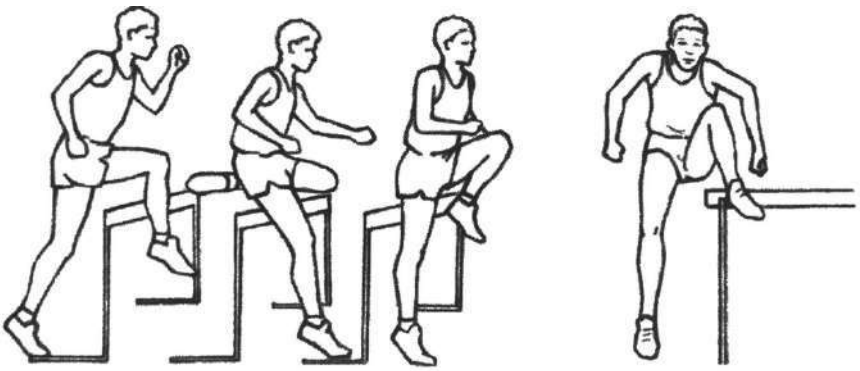


Figure 3.11 Trailing-leg practice.

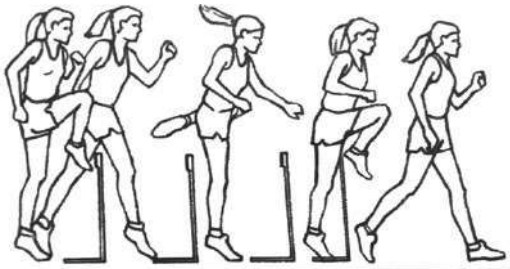


Figure 3.12 Walking hurdle clearance with no leading-leg extension.

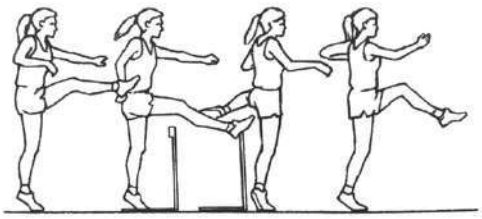
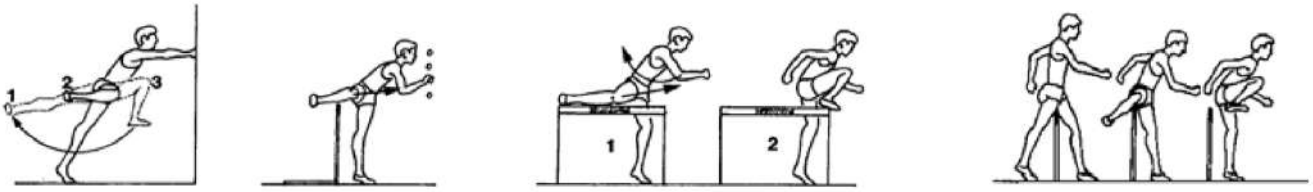


Figure 3.13 Walking hurdle clearance with leading-leg extension.

STEP 4 TRAIL LEG DRILLS



OBJECTIVES:

To improve trail leg action.

- Start with exercises standing upright.
- Add hurdles to get correct height.
- Proceed to walking and jogging.

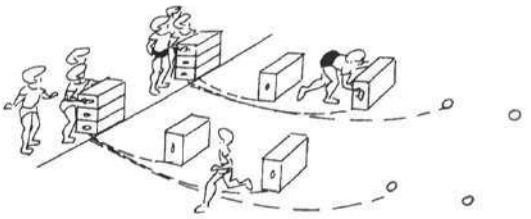
TIPS:

- For trail leg drill, ensure landing foot is beyond the hurdle.
- Increase speed as confidence grows.
- Don't exaggerate the lean into the hurdle.

HURDLE GAMES

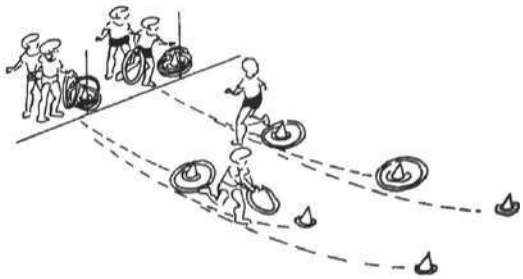
HURDLE GAME

Each team is given a pile of cardboard boxes. Marks are placed showing the points to which the boxes must be carried. The first runner carries his/her box to the first mark, returns and sends off the next runner with a hand slap. The second runner carries his/her box to the second mark, etc. The first round is finished when all the boxes have been distributed. In the following rounds the boxes are used as hurdles. Shuttle and turning relays are possible. In the last round the boxes are collected one by one and returned to the start.



Note: The marks should be positioned in such a way that the boxes can be run over with a specific rhythm ("one-stride rhythm", "two-stride rhythm" etc.).

Variation: Cones can be set out instead of marks. In the first round the runners place rings over the cones. In the following rounds the runners hurdle the cones/rings.



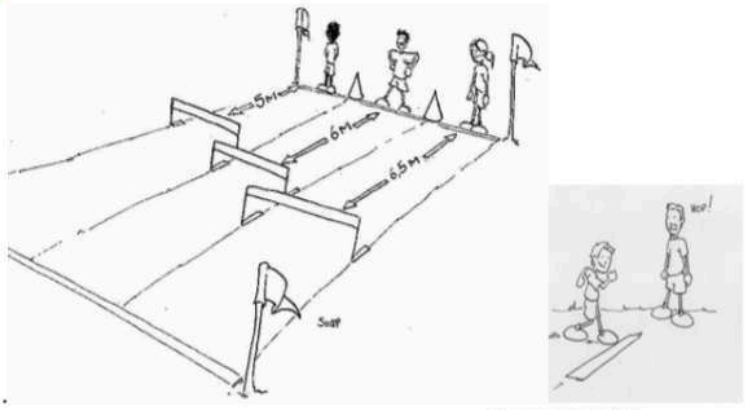
Educational Card 2: Sprint/Hurdles Shuttle Relay

Objective: **To improve the organisation of the distance between the starting line and the 1st obstacle**

Proposed situation: Have 3 different courses (5, 6, 7m) at the participants' disposal as following:

Start from a crossbar on the ground

Safe obstacles are placed at a 5-m, 6-m, 7-m distance (they are low so that can be cleared easily).



Starting position

Instructions for the exercise:

- Do not slow down before the obstacles
- Sprint until the finishing line
- Make a fast transition to running after clearance

Noticeable points:

- Progressive acceleration towards the obstacle
- Progressive stride amplitude
- Take-off is taken far from the hurdle
- Active and balance landing after clearance

Teaching progression:

- Vary the distances
- Run in pairs

Juvenile Track & Field *Hurdle and Throws Specifications*

Age Group	Distance	Height	No.	Approach	Interval	Finish
Girls 13	60m	68.6cm 2' 3"	6	11.00m	7.25m	12.75m
Girls 14	75m	68.6cm 2' 3"	8	11.50m	7.50m	11.00m
Girls 15	80m	76.2cm 2' 6"	8	12.00m	8.00m	12.00m
Girls 15	250m	68.6cm 2' 3"	6	35.00m	35.00m	40.00m
Girls 16	80m	76.2cm 2' 6"	8	12.00m	8.00m	12.00m
Girls 16	250m	68.6cm 2' 3"	6	35.00m	8.00m	40.00m
Girls 17	100m	76.2cm 2' 6"	10	13.00m	8.50m	10.50m
Girls 17	300m	76.2cm 2' 6"	7	50.00m	35.00m	40.00m
Girls 18	100m	76.2cm 2' 6"	10	13.00m	8.50m	10.50m
Girls 18	400m	76.2cm 2' 6"	10	45.00m	35.00m	40.00m
Girls 19	100m	84.0cm 2' 9"	10	13.00m	8.50m	10.50m
Girls 19	400m	76.2cm 2' 6"	10	45.00m	35.00m	40.00m
Boys 13	60m	68.6cm 2' 3"	6	11.00m	7.25m	12.75m
Boys 14	75m	76.2cm 2' 6"	8	11.50m	7.50m	11.00m
Boys 15	80m	84.0cm 2' 9"	8	12.00m	8.00m	12.00m
Boys 15	250m	76.2cm 2' 6"	6	35.00m	35.00m	40.00cm
Boys 16	100m	84.0cm 2' 9"	10	13.00m	8.50m	10.50m
Boys 16	250m	76.2cm 2' 6"	6	35.00m	35.00m	40.00m
Boys 17 (*)	100m	91.4cm 3' 0"	10	13.00m	8.50m	10.50m
Boys 17	300m	76.2cm 2' 6"	7	50.00m	35.00m	40.00m
Boys 18	110m	91.4cm 3' 0"	10	13.72m	9.14m	14.02m
Boys 18	400m	84.0cm 2' 9"	10	45.00m	35.00m	40.00m
Boys 19	110m	99.0cm 3' 3"	10	13.72m	9.14m	14.02m
Boys 19	400m	91.4cm 3' 0"	10	45.00m	35.00m	40.00m

(*) **From 2017,** The Boys U17 Hurdles outdoor race be changed to the following specification:
Distance – 100m, Approach – 13.00m, Spacing – 8.50m, Number of Hurdles – 10, Height – 3'0 (91.4cm)

Useful Links:

Long Jump:
https://coachingyoungathletes.com/category/articles/long-jump/

Hurdles:
https://coachingyoungathletes.com/category/articles/hurdles/

References:

Website: https://coachingyoungathletes.com/

Book: IAAF Run! Jump! Throw! – The Official IAAF Guide to Teaching Athletics

Book: Conditioning Young Athletes – Michael Carrera and Tudor Bompa (2015).

Book: Fundamentals of Track and Field 2nd Edition – Gerry Carr.