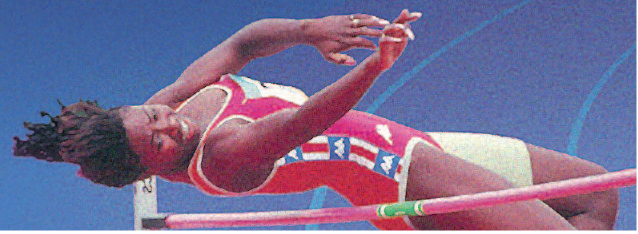
Chapter 6 Acquiring movement skills

Skill and ability



What you need to know

By the end of this chapter you should:

- know the difference between skill and ability
- know how abilities develop into skills
- be able to classify skills according to distinct criteria

If you watch football on television, you will have heard the commentator remark on a particular player's great ability, especially when that player executes a skill in an effective way. The terms skill and ability are used frequently in sport, sometimes with confusion between the two, so we need to establish the differences between the two terms.

Ability

Abilities are the building blocks of skill. There is no such thing as general ability, but rather a group of abilities that are specific to a skill. For example, a sprint start in athletics requires the abilities of power, gross body coordination and speed. Abilities are therefore varied and numerous, and they combine in groups to be the foundation for the development of specific sporting skills.

Key term

Ability: an innate characteristic that lays the foundation of skill.

Ability in sport is an innate characteristic required for performing movement. We might be born with good coordination, for example, which could help us to develop passing skills after periods of practice. We inherit natural abilities from our parents and while these abilities can be enhanced, the fact remains that you have either got them or you haven't!

Abilities are enduring. You are born with them and they tend to remain with you. A player born with natural strength will retain that ability for life and be able to call upon it when required, especially if weight training enhances that natural strength.

Examples of abilities include:

- explosive strength
- static balance
- speed
- agility
- gross body coordination
- dynamic strength
- dynamic balance
- power
- visual acuity
- manual dexterity
- stamina
- perceptual ability
- gross motor ability
- hand–eye coordination
- psychomotor ability

You are probably familiar with most of these abilities but some may be new to you. Visual acuity is the ability to scan the playing arena in order to pick up information. Manual dexterity is the ability to coordinate actions with the hands. The term dynamic refers to active movement, so dynamic balance is needed on the move, as in a gymnastic floor sequence, while static balance is needed during a handstand.

Perceptual ability is particularly important. It is the ability to sense and interpret information. For example, a netball player may have the ability to assess how far away another player is before deciding how hard to project the ball when making a pass. Psychomotor ability is the ability to deal with information once you have sensed it. In other words, it involves the ability to make decisions based on information received. Having sensed how far away your team-mate is in netball, you might then decide on the best type of pass to use.

Key terms

Perceptual ability: the ability to sense and interpret information.

Psychomotor ability: the ability to assess a stimulus and respond with the correct action.

Skill: a learned, efficient movement performed with a purpose and to a consistently high standard.

Gross motor ability is the characteristic required to perform large muscle-group movements, such as the strength needed to make a rugby tackle using the deltoid and latissimus dorsi muscles in the shoulder.

Skill

Skill differs from ability in that it is not innate. Skill is learned, and developed from ability after a period of practice. To produce a skilled performance, the player must practise, to enhance the underlying abilities. Think of some skilful performances in sport, such as a magnificent free kick in football that bends around the defensive wall, or an exquisite performance on the ice by an Olympic skater.

Characteristics of a skilful performance

Skilled performances:

- are **learned**. On the basis of existing abilities, the practising of skills and drills in some form of training will help to produce a skilful movement.
- are **consistent**. A skilled player is able to perform the task to the same high level time after time. For example, a penalty taker in hockey might score nine penalty flicks out of ten during the season.
- are **goal-directed**. A player will practise skills with an aim in mind. He/she might want to improve shooting skills in order to score more goals.
- are **aesthetic**. They look good. A top-class dance routine is pleasing to watch.
- follow a **technical** model. A skilful performance will closely match a correct demonstration of the skill.
- are **controlled**. The skilful performer is in charge, controlling the rate and timing of the skill.
- are **efficient**. The skill is performed without any wasted energy.
- are **smooth**. The movement appears to flow.

Chapter 6 Skill and ability

The sports lecturer and author Barbara Knapp summed up the characteristics of skilful performance when she defined skill in sport as:

> ...the learned ability to bring about predetermined results with maximum certainty, often with the minimum outlay of time, energy or both.

You should learn this definition because it includes many of the characteristics of skilful performance.

A skilful performance has two elements:

- a **cognitive** part
- a **motor** part

The cognitive part of the skill requires thought before action. The motor part requires control and efficient movement. A football player about to make a pass must first look to see which other players are in a good position to receive the pass before the ball is kicked.

Top tip

Exam questions often ask you to name three characteristics of skill. Make sure that you name three *different* characteristics because the examiner will mark the first three only. The terms goal-directed, consistent and learned would get the marks but the terms smooth, fluent and efficient might be considered too similar to score separate marks.

Tasks to tackle 6.1

Draw a simple diagram or table to show the main characteristics of skill and ability.

Top tip

The following mnemonic might help you to remember the characteristics of skill for exam purposes:

Lucky	**L**earned
Cats	**C**ontrolled
Get	**G**oal-directed
A	**A**esthetic
Fish	**F**luent
Consistently	**C**onsistent
Every	**E**fficient
Saturday	**S**mooth
Evening	**E**conomical

The relationship between skill and ability

The abilities we are born with are the foundations of skills but they need to be developed before a high skill level is reached. Sporting abilities are enhanced in childhood by:

- simple play — running and catching games played by primary school children
- early coaching — basic and introductory level coaching schemes under the control of national governing bodies
- experiencing a variety of situations — for example games, individual sports and swimming

Children copy role models and are therefore more likely to pursue sports if they see their parents involved in sporting activities. Having access to good sporting facilities will further encourage this interest.

Abilities develop into **fundamental** or foundation skills. These are the basic movements from which more advanced (**sport-specific**) skills develop. They include running, throwing, catching, kicking, balancing and jumping. Specific skills such as a javelin throw or a tennis serve are attained with practice. For example, someone born with the abilities of power, coordination and manual dexterity could enhance these abilities into the foundation skills of catching and throwing, and these could be developed into the sport-specific skill of a netball pass.

The relationship between skill and ability is explained in Figure 6.1.

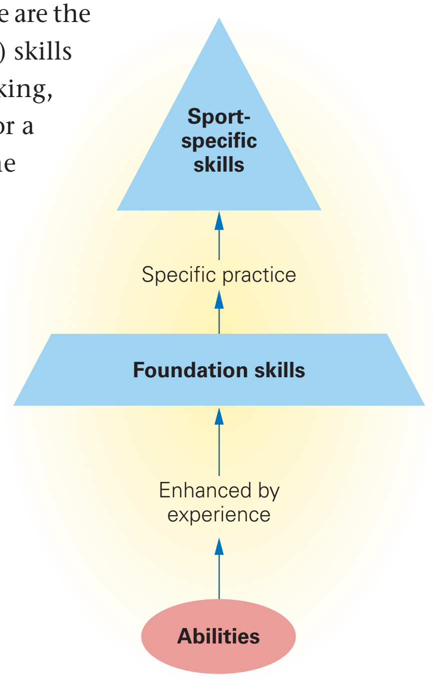


Figure 6.1 The skill–ability relationship

Tasks to tackle 6.2

Name a skill from a sport of your choice, the abilities that underpin it and the fundamental skills from which it could have been developed. For example, a netball pass is built on the abilities of hand–eye coordination and manual dexterity, and developed from the fundamental skills of catching and throwing.

Skills classification

Skills are classified so that coaches can decide on the best ways to practise them. They are usually classified on a sliding scale called a **continuum**, which shows the extent to which a skill meets certain criteria. The continuum can also reveal how a skill varies depending on the situation. The criteria used to classify skills are detailed below.

Muscular involvement

A **fine** skill has small, delicate muscle movements, such as the finger control required in a pistol shot at a target. A **gross** skill uses large muscle group movements, such as the movement of the biceps and triceps during a badminton drop shot. Most skills in sport are gross skills. A rugby tackle uses the deltoid muscle in the shoulder and is also a gross skill. The rugby tackle is further towards the gross end of the continuum than the badminton drop shot.

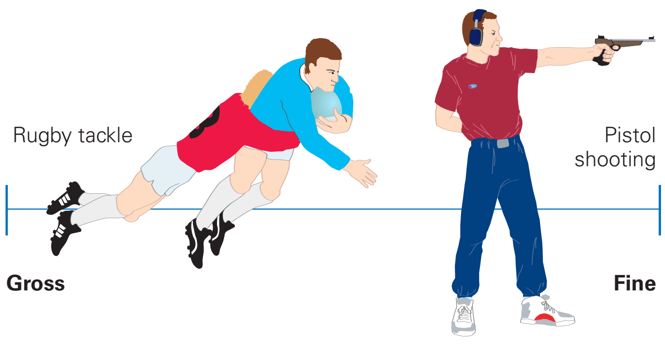


Figure 6.2 The muscular involvement continuum

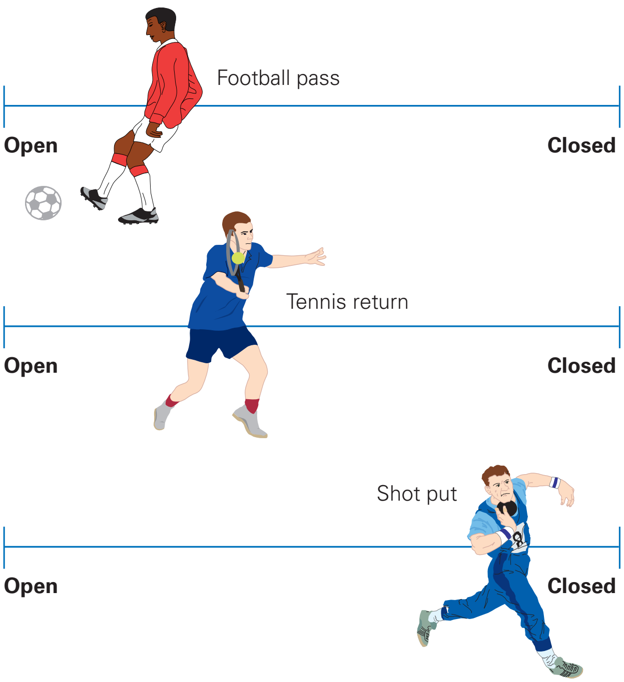


Figure 6.3 The environmental influence continuum

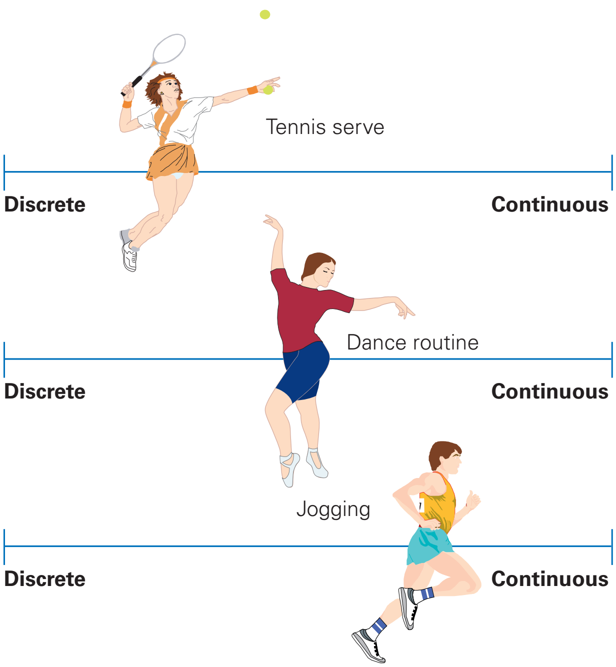


Figure 6.4 The continuity continuum

Environmental influence

An **open** skill is one that is affected by the sporting environment, which includes conditional elements such as the weather, as well as the positions of other players and the pressure exerted by opponents. The performer has to make decisions. Open skills are usually externally paced. Examples include a football pass, when the ball carrier has to decide which team-mate to pass to, or a tennis return that depends on the opponent's shot. In either case, the player has to adapt to the actions of others and make a decision on where to place the ball.

A **closed** skill involves less decision-making because it takes place in a more predictable environment and the performer knows exactly what he/she should be doing. An example is the shot put, which is always performed in a circle of the same size. The performer can use the same routine without much adaptation. A closed skill is self-paced: the rate at which it is executed is up to the performer. It can become a habit and tends not to be affected by the environment.

The environmental decisions continuum is shown in Figure 6.3. Note how the football pass and the tennis return are both open but the football pass is more open than the tennis return. The continuum therefore shows the range between skills and, in the case of open or closed skills, by how much the coach needs to vary training so that a degree of adaptation is included in practice.

Continuity

A **discrete** skill has a short time span and a distinct beginning and end. An example is a tennis serve, where the action is short, sharp and clearly defined. A **continuous** skill has no clear beginning or end. The end of one part of the movement links into the next. An example is the leg movement in cycling or jogging. A **serial** skill is a set of discrete movements, linked together in a particular order to form a more continuous task. Serial skills therefore occupy the middle ground on a continuum, indicating that there are discrete elements that form a more continuous task. Examples include the leap, jump, turn and kick that might be linked together to form a dance routine, and the hop, step and jump that must be performed in a specific order in the triple jump in athletics. In both cases, each discrete movement can be practised separately.

Pacing

A **self-paced** skill is one during which the performer controls the rate of execution. The performer can decide how to execute the (usually closed) skill before doing so. Such pre-decision-making is called **pro-action**. For example, when a penalty is taken in football, the player can decide to place the ball in the corner of the goal or 'blast' it past the goalkeeper.

An **externally paced** skill is one during which the rate of execution is outside the control of the performer, who may have to react to external conditions. It is usually an open skill. In sailing, for instance, the speed of the wind dictates the pace of the boat and the yachtsman or woman has to react accordingly. In an invasion game such as netball, the timing of the pass might depend on the pressure exerted by the opponents.

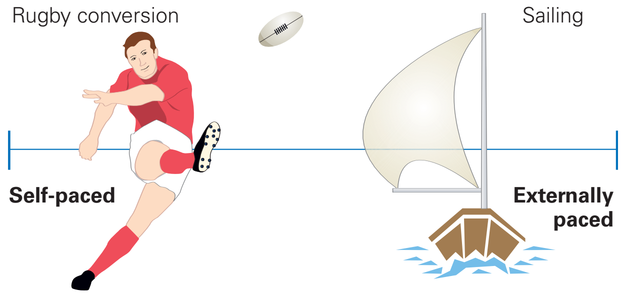


Figure 6.5 The pacing continuum

Difficulty

A **complex** skill involves a high level of decision-making and has a large cognitive or thinking element to it. Examples include a passing sequence in netball or a set of tackles in rugby league. Players need to concentrate on the task and pay attention to numerous variables.

For a **simple** skill, such as a forward roll in gymnastics, the performer has a limited amount of information to process and the skill has a smaller cognitive element. The performer can concentrate on the task and focus on its successful completion.

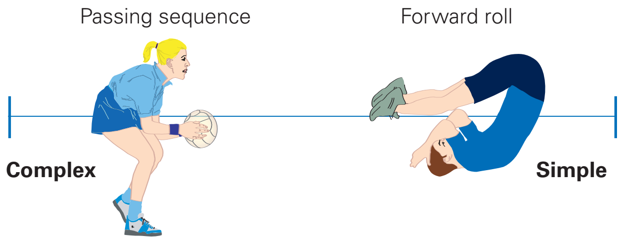


Figure 6.6 The decision-making continuum

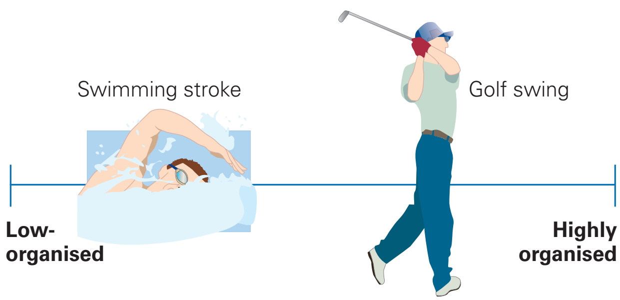


Figure 6.7 The organisation continuum

Organisation

A **low-organised** skill can be broken down into parts, or subroutines. The subroutines of the task can be identified as independent actions. For example, when teaching a swimming stroke, the arm and leg actions can be taught separately using a float. A **highly organised** skill is hard to break down since it is fast and ballistic in its execution. The parts that make up the task are integrated closely in the action. A golf swing is an example.

Tasks to tackle 6.3

Using the named skill from Tasks to Tackle 6.2 (page 61), classify the skill as gross or fine, open or closed, discrete, serial or continuous, externally paced or self-paced, complex or simple, and highly organised or low-organised. Give reasons for each classification.

Top tip

When answering questions on skill classification be careful not to fall into the trap of describing the skill instead of explaining why it is classified as it is. For example, a football pass is open because the sporting environment influences it and decisions are needed. Use a diagram of the skill classification continuum to show that you know the difference between types of skill, and make sure that you label it and name the skills to get the mark.

Practice makes perfect

1 Explain why there is no such thing as a general ability in sport. *(2 marks)*

2 Explain why a continuum is needed to classify skills in sport. *(2 marks)*

3 Explain why a football pass can be described as an open skill. *(3 marks)*

4 Use an example from sport to explain what is meant by a serial skill. *(3 marks)*