Skill Classification pages from the A level Book

a high percentage rate of success over a number of games. In these two examples, another quality that defines skill is **accuracy**; the penalty taker needs to hit the target in a precise spot to score.

Skilled performance is **controlled**. The diver executing a high dive from the ten-metre board must control their mid-air movements to ensure that when they hit the water, the entry causes minimal splash. Skill is **goal directed** in the sense that it has an aim: the athlete in a hurdles race has the aim of clearing the hurdles and hitting the finish line in the fastest possible time.

Skill is **aesthetically pleasing**, which means that it looks good. Imagine the grace and elegance with which an ice skater performs an ice dance routine to music to illustrate the point. Skill is also **fluent, economical, smooth** and **efficient**. These four terms imply that a skilled performer, as indicated in Knapp's definition, can execute the task with minimal use of energy while achieving a high level of success. A climber would hope to complete the first phase or pitch of a route without wasting too much energy so that there is enough energy in the tank for the next pitch to be attempted and more chance of a successful conclusion.

Memory tools

To help you remember the characteristics of skill, the following rhyme or acronym may help you.

The characteristics of skill can be related to the terms **ACE FACE**!

- A = aesthetically pleasing
- C = consistent
- E = efficient
- F = fluent
- A = accurate
- C = controlled
- E = economical

Skill classification: the use of continua

It has already been indicated that skill is developed through practice. In order to make that practice relevant, skill can be classified into various groups so that the correct form of practice can be chosen. The grouping or classifications of skill are based on clearly defined criteria and those criteria are included in a continua which shows the extent to which a skill matches the set criteria. Those criteria are discussed below. It is important to have knowledge of such skill criteria because the coach or player can then realise by how much a skill fits the criteria and so practice can be adjusted. A coach in a team game might deduce that a pass is very open and therefore introduce variety in training to create that unpredictable environment.

Open and closed skills: environmental influence

The first criterion is based on the influence of the environment.

An **open skill** is performed when the sporting environment is unpredictable and changes frequently. An unpredictable environment simply means all the things that the performer has to think about when playing sport – such as the pitch, the opposition and the position of team mates. This means that the performer must make decisions as the skill is in progress

Figure 1 A gymnastic performance shows some of the characteristics of skill

CHECK YOUR UNDERSTANDING

Skills are learned and efficient. State another three characteristics of skill.

KEY TERM

Skill: The learned ability to bring about predetermined results with the minimum outlay of time, energy or both

KEY TERM

Open skill: A skill performed in an unpredictable environment.

Figure 2 A pass in a team game is an example of an open skill

KEY TERMS

Closed skill: A skill performed in predictable environment.

Gross skill: A skill that uses large muscle groups.

Fine skill: A skill that uses smaller muscle groups.

Figure 3 Shot putt – a closed skill

Figure 4 Tackle – a gross skill

Figure 5 Table tennis – a fine skill

and such a skill might best be practised with variety. An unpredictable environment does not necessarily refer to the weather but can include the changing positions of players on the pitch and the unexpected bounce of a ball.

The opposite of an open skill is a **closed skill** which is performed in a predictable environment when, rather than having to adapt actions during the execution of the skill, the performer can repeat the actions consistently and there are fewer decisions to make. Performing a shot putt is a repeated uniform action in which the regulations and conditions of the throwing action are unlikely to change. Such a skill may best be performed by repetition of the same action.

Gross and fine skills: extent of muscles used

The next set of criteria is based on the extent of the muscle groups used in the action.

A **gross skill** is one which is performed using large muscle groups such as the shoulder muscles used to initiate a rugby tackle, together with the leg muscles used to drive the opponent to the ground. The large muscles of the quadriceps used in the tackle will have a large number of fibres.

A **fine skill** is one that uses the smaller, more intricate muscle groups such as the control needed to return a shot in table tennis or even the steady hand needed when attempting to fire a shot in pistol shooting. Small muscles can be used for fine motor control such as the muscles used to control movements of the eyes and of the fingers.

Self-paced and externally paced skills: control and rate of execution

The next set of criteria are concerned with the amount of control the performer has over the rate of execution of the skill and the speed with which the skill is performed.

During a **self-paced skill**, the performer controls the speed at which the skill is performed and often has some control over when to start it. When taking a penalty, the player will decide before the penalty is taken how hard to strike the ball and when to commence the run up (albeit after the referee has indicated that the penalty can commence).

In an **externally paced skill**, the performer has no control over when to start the skill or how fast it might be performed. In a regatta, the sailor must react to the speed of the wind and the flow of the current

Figure 6 Penalty – self-paced skill

Figure 7 Sailing – externally paced skill

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when performing a manoeuvre, and has to start the race on the sound of the horn.

Discrete, continuous and serial skills: continuity

The next set of criteria is based upon the continuity of the task.

A **discrete skill** has a clear beginning and end and is one short sharp action. An example is a tennis serve – a fast action, after which the player either stops and repeats if the serve does not go 'in' or, on completion of a successful serve, will then move into position to deal with a possible return. Either way, the service action is clearly identified.

A **continuous skill** has no clear beginning and end and often the end of one part or **sub-routine** of the skill is the start of the next part. A sub-routine is an action that is part of the whole skill movement. Cycling is an example – when the actions of pedalling can be repeated continuously until the task is completed, or in a non-competitive situation can be stopped when the cyclist feels that they need a rest!

There is a third type of skill based on the criteria of this category that uses discrete skills linked together to form a more continuous movement. A **serial skill** is defined as one in which several discrete skills are linked together in a specific order to form a completed task.

Examples of such skills include gymnastic, dance or trampoline routines during which distinct discrete skills such as the seat drop, pike and somersault on the trampoline can be practised individually and then put together to form the completed movement. Each skill is a discrete movement – put it together and you have a serial skill. Another classic example is the triple jump in athletics when the hop, step and jump, discrete skills in their own right, are combined to make up the movement.

High and low skills: organisation

Skills can be classified according to how easily they can be broken down into parts, or sub-routines.

A skill that is easily broken down into its sub-routines is called a **low organised skill**. An example is a swimming stroke because the arm action, leg action and body positioning can be easily identified and practised separately if needed.

Figure 8 Cycling – continuous skill

Figure 9 Gymnastics – serial skill

Figure 10 Tennis serve – discrete skill

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A **highly organised skill** is not easily broken down into parts. In the case of a volley in football, the action is very quick and the sub-routines merge quickly as the skill is performed.

Figure 11 Swimming stroke – low organised skill

Figure 12 Volley – high organised skill

Simple and complex skills: degree of difficulty

The final criterion on which skills are classified is the degree of difficulty the skills possess in terms of the amount of information needed to complete the skill.

A **simple skill** needs limited decisions to be processed during its execution and there is not a lot for the performer to think about as the skill is being completed. A forward roll in gymnastics is an example.

A **complex skill** is one in which there may be many decisions to make and an amount of information needed before the performer can attempt the skill. A dribble in hockey is an example since the player has to take into account the position of other players, attackers and defenders, as well as concentrating on the ball and the control of the stick! The player has to think about the cognitive parts of the skill such as the position of opponents, as well as the psychomotor parts – the stick action.

Figure 13 Forward roll – simple skill

Figure 14 Hockey dribble – complex skill