SKILLS AND ABILITIES

Characteristics and definitions of skill

The term motor skill is used to describe a technique within a game or sport (for example, passing, hitting, catching, controlling a ball), or in reference to the sport itself (diving, tennis, hammer throwing), or a quality possessed by a sportsperson. The characteristics of skill (see figure B.1) are that it should be co-ordinated, controlled, with good technique, efficient, or pre-determined by practice or the observation of others performing the skill perfectly. As such the skill will be well-learned, efficient and consistent. The beauty or pleasing nature of a skill is its aesthetic quality (figure B.2).

Difference between motor and perceptual abilities

Characteristics of ability

Ability (see figure B.3) is the foundation for skill learning. A successful sportsperson must be born with a number of relevant abilities. An ability is genetically determined, since we are born with our abilities, which means that it is innate and enduring – it is part of our constitution and will last all our lives. For example, some children can quickly pick up skills (such as catching a ball or riding a bike), whereas other children take much longer and are less successful at any given skill.

Motor (psychomotor) ability

This is the ability to process information about how and when we move. For example, fast reaction time is an ability, a rugby player must react quickly to an oncoming player who changes direction. Gross motor ability is an ability in which the performer is able to move using simple muscle movements, for example, being able to run or ride a bike.

Perceptual ability

This is the ability to sense and interpret sensory inputs or information. For example, the awareness of a rugby player of the positions and actions of opponents.

Ability is an enduring trait. We largely hold on to our abilities throughout our lives, for example, riding a bike.

General ability

This does not really exist - we have specific abilities

Specific abilities

This refers to the fact that skills require different abilities. For example, gymnastics involves balance, strength and flexibility

Groups of abilities

A good sportsperson may have many different groups of abilities. For example, a good all round sportsman could have different specific abilities such as good hand-eye co-ordination and balance which could be transferred to lots of different sports activities.
Difference between skill and ability

Skill is acquired. Skills must be learned, which can require an extended process including the copying of expert models. On the other hand, ability is an enduring trait which can last throughout a person’s life, and is genetic in basis. Abilities underpin and contribute to skills. For example, someone with good natural balance, shoulder and hip flexibility, and upper body and wrist strength, has all the abilities necessary to perform a handstand. But practice would be required to actually perform the skill of the handstand.

Types of skill

A psychomotor skill is a voluntary body movement with a pre-determined end result, for example, hitting a ball with a bat. Fundamental psychomotor skills are basic skills that are learned when young. They form the basis of more complex movements, for example, jumping.

A perceptual skill is about being able to interpret information quickly at a given time and to make an appropriate decision. For example, a goalkeeper in football assessing the movement of an opponent approaching.

A cognitive skill is about being able to make sense of a problem and to solve it. These skills affect perception.

Classification of skill

All skills are on a classification continuum. There are several types of continuum:

Environmental influence

The environmental influence continuum deals with a range of skills labelled open to closed. Open skills are predominantly perceptual, with no clear beginning / end, are affected by environment, are externally-paced, in response to many actions of others. For example receiving a pass at soccer or hockey. On the other hand, closed skills are predominantly habitual, with a clear beginning and end, and are not affected much by environment. For example, an athlete performing a shot-putt. See further examples in figure B.4.

Continuity

The continuity continuum deals with discrete, serial and continuous skills. Discrete skills are those that have a clear beginning and end, for example taking a penalty kick at soccer. Serial skills are those that have a number of discrete elements linked together. For example, the triple jump in which the hop / step / jump are linked into one movement. Continuous skills are those that cannot be split up very easily into subroutines, for example, a hockey player dribbling a ball. See further examples in figure B.5.

Muscular involvement

The muscular involvement continuum deals with gross and fine skills. Gross skills are those that use large muscle movements, for example, weight lifting. Fine skills are those that use small muscle movements, for example, darts. See further examples in figure B.6.

Pacing

The pacing continuum deals with self-paced and externally-paced skills. Self-paced skills are those in which the performer has control over movement, for example, serving in volleyball. Externally-paced skills are those in which the environment has more control, for example, blocking in volleyball. See figure B.7 for further examples.
The skill continuum

All skills have elements of all the classifications. For example, a golf swing may be predominantly a closed skill but it can be affected by strong weather conditions which would be an open skill characteristic. The swim start in figure B.8 could be said to have gross and closed characteristics, but is it also self-paced and discrete?

Most skills have characteristics which make them near one end of a classification continuum. For example, a batsman in cricket as he plays a shot can be seen to be performing more of an open skill than a closed skill (he has to adapt to the speed and direction of the ball). But the cricket shot does have elements of closed characteristics too. The player has learned particular shots and almost automatically puts them into operation when the ball approaches at different speeds, with different spin, and in different directions.

Practice questions

1) If you were watching a number of performers in sport, what characteristics would you expect the movements of a skilled performer to have? 4 marks

2) By using examples from sport, explain what is meant by fundamental psychomotor skills and why they are so important. 4 marks

3) a) Why is the shot put often regarded as a closed skill? 2 marks

   b) Using passing skills in a team game, explain what is meant by an open skill. 4 marks

   c) Give one example from sport of each of the following and state why you have chosen your example: continuous skills, serial skills, discrete skills. 3 marks

4) The diagram in figure B.9 shows a profile for the racing start in swimming scaled across four different continua representing the skill characteristics of the movement.

   a) Referring to the profile, describe the swim racing start in terms of each of the four characteristics shown. 4 marks

   b) Using this same profile chart, sketch a profile which would describe the characteristics of a table tennis serve. 3 marks

   c) Explain why you have chosen your particular characteristic for muscular involvement and environmental conditions. 4 marks

   d) Explain how your profile for the table tennis serve might assist a coach in planning practices for players learning this skill. 5 marks

5) a) You are observing a number of tennis players being coached. There is a mixture of abilities. Explain what is meant by ability, and give examples of motor abilities and perceptual abilities. 4 marks

   b) Give two types of abilities that are important to play tennis effectively. Why is it wrong to assume that there is such a thing as natural ability? 4 marks