

Content Title: Learning Variables

Key points

- Knowledge of different skill classifications

Practical Application/Explanation

CLASSIFICATION OF SKILL – This is the process of grouping similar skills together. It is not a perfect process as skills may have many characteristics, which change in different situations. Because skills do not neatly fit into one classification, the best means to analyse them is to place them on a continuum. Skills are usually classified in terms of:

- Bodily involvement – Gross and fine skills.
- Pacing conditions – Self and externally paced skills.
- Continuity – Continuous, serial and discrete skills.
- Environmental requirements/conditions – Open and closed skills.
- Cognitive involvement – Simple and complex skills.

GROSS and FINE SKILLS – Gross skills are movements involving large muscle groups and are not very precise e.g. jumping, running. Fine skills are movements involving small muscle groups and generally require a high degree of hand-eye co-ordination e.g. darts, a snooker shot.

SELF and EXTERNALLY PACED SKILLS – This refers to the timing of movements. In self-paced skills the timing of the movement is determined by the performer. Self-paced skills are usually closed skills e.g. a discus throw. In externally-paced skills the environment (wind, weather) and external factors (opponents) control the rate of performing the skill e.g. receiving a serve in tennis, reacting to the flow of the water when canoeing.

CONTINUOUS, SERIAL and DISCRETE SKILLS – Continuous skills have no obvious beginning or end, the end of one cycle is the beginning of the next e.g. cycling, rowing, jogging. Discrete skills have a clear beginning and end. The skill can be repeated but the performer must start from the beginning e.g. a simple dive, a jump. Serial skills have several discrete elements which are put together to make an integrated movement or sequence of movements e.g. the triple jump, a gymnastics sequence.

OPEN and CLOSED SKILLS – Open skills are affected by the environment i.e. the action has to be constantly varied according to what is happening around the performer e.g. a player making a pass in football has to consider the position of the person they are passing to, the position of any opposition, the strength and direction of the wind etc. Closed skills are not affected by the environment and are predominantly pre-learned i.e. movements follow a set pattern e.g. shot putt, a gymnastics routine.

SIMPLE and COMPLEX SKILLS – A complex skill requires a lot of information processing i.e. the perceptual requirements are high e.g. the Fosbury Flop high jump technique. Simple skills require little information processing and are executed with little or no thought e.g. walking.

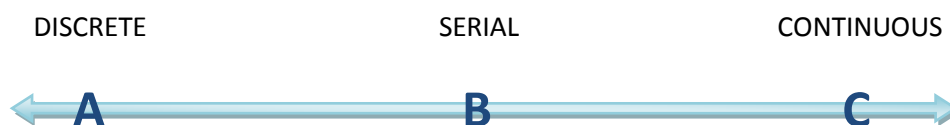
TASK COMPLEXITY – If a skill is high in complexity it has a large number of parts and requires a lot of information processing. The task may be broken down into easier sub units.

TASK ORGANISATION – This refers to the relationship between the parts of a skill. A highly organised task involves skills that are difficult to split into sub-routines. It is often continuous with parts that are very closely linked to each other and have a significant timing component e.g. cycling. A skill that has low organisation is easily broken down into its constituent parts e.g. a badminton serve can be broken down into preparation, releasing the shuttlecock, striking it and finally the follow through.

Practical Application/Explanation

COMPLEXITY/ORGANISATION	EXAMPLE AND IMPLICATIONS FOR TEACHER/COACH/PERFORMER
HIGH COMPLEXITY AND LOW ORGANISATION	TRAMPOLINING ROUTINE – a large number of parts which make it difficult to remember. It will be easier to remember if it is broken down into smaller parts.
LOW COMPLEXITY AND HIGH ORGANISATION	HITTING A TENNIS BALL – the skill is relatively simple so does not need breaking down, but has a significant timing element, so therefore needs to be practised as a whole.

EXAMPLE OF USE OF CONTINUUM



A – standing long jump

B – triple jump

C – cycling

Top Tips:

Don't forget to apply this knowledge to a choice of an appropriate type of practice e.g. open skills are best developed using variable practice.



Exam Style Questions

1. (a) Identify **one** specific skill from your chosen practical activity and classify that skill on **each** continuum below. [3]

Justify **each** answer in the space provided.

Chosen practical activity

Specific skill

open ←————→ closed

discrete ←————→ continuous

self-paced ←————→ *externally paced*

