

Skill Acquisition: the classification and Teaching of Movement skills

Review the Classification of Skills to include the differences between individual, coactive and interactive skills.

The basic definition given to what skill is- “the ability to do something well” (Crowther et.al.1995)

Skills fall into three different categories; coactive, interactive and individual skills; all of these skills are related to the performer.

“Individual skills are skills performed in seclusion.” (Gilligan. et al. 2000)

Even if we perform alongside other people, individual skills are performed in isolation-only one performer at a time.

In a trampolining competition, the performer will be watched and analysed. Then given certain marks. Once the sequence have been performed, the next competitor will start their routine and given their marks. The winner from this competition will be the one with the most points.

Coactive skills are skills in which you perform by yourself but compete against others at the same time. In a 100-meter race, you run with other competitors but do not influence each other you just run your own race.

Interactive skills are skills that allow other performers to be directly involved.

In basketball, there is a direct influence on the skilful performance due to the performance of the opposition-such as tackling and blocking.

Knapp recognised two basic classifications of skills. She suggests that skills can fit on a continuum between open and closed. These skills were placed into a continuum (a straight line with a beginning and an end).

[Closed]-0-1-2-3-4-5-6-7-8-9-10-[Open]
Skill category

(Advanced PE for Edexcel)

It was clear that each skill had an opposite to it such as the open skill opposes to the closed skill. The skills included Open/closed, Gross/Fine, discrete/serial/continuous and self-paced/ externally paced.

Closed skills are not affected by the environment and appear to be performed the same, each time performed. Movements always follow a set pattern and have a definite beginning and end. The skills are self-paced, meaning that the performer controls when the whole move, including how the movement is made, and when their ready to start.

An example of a closed skill would be a free throw in basketball.

The player has no distractions and can take the shot in their own time. At this point, they are attempting to replicate a pre-learned movement, in an un-changing environment.

Open skills are affected by the environment and are not performed the same way each time. Movements and the way the skill is performed have to be adapted to the environment and the skill is mostly externally paced. An example of this would be football.

Different aspects, such as the wind, rain and sunshine will affect the ground. This will affect the speed/strength at which the ball needs to be hit. If a player was attempting to make a pass and the wind blows away from the direction at which he wanted to pass the ball, then it would need to be hit harder in order to get past the wind to get to the next player.

Gross skills involve large muscle movements. These skills are not very precise and may include movement patterns such as walking and jumping.

An example of a gross skill would be shot putt. In shot putt, there are a lot of muscles used as it is a gross movement and the weight gets transferred from one area of the body to the next. The main muscles used are the arm muscles, deltoid, biceps, triceps and also the smaller muscle groups in the forearm, including the flexor and the extensor carpi.

Fine skills involve accurate movements using the small muscle groups.

In snooker, hardly any physical activities are needed; the game is about skilful hand eye co-ordination. The muscles used in taking a snooker shot are in the forearm. The wrist also has a lot to do with the shot that is about to be made as it controls the speed at which the energy is transferred from the arm to the cue and controls which direction at what angle the cue hits the ball.

Discrete, serial and continuous skills are the options of how well defined the beginning and end of the skill is, they have a clear beginning and an end. An example would be a serve in badminton. It is clear where the beginning and end is. The beginning would be when the sportsperson throws the shuttlecock up into the air, takes a swing, the end would be when the rackets brought back through and is hit. The movement will always have to start from the set beginning, despite how many times it is performed.

Continuous skills have no obvious beginning or end. The skill is repeated as a set pattern. An example of this would be running; each step flows into the next and it is not clear when each phase begins or ends.

Serial skills have a few discrete and continuous skills, to make a movement or a sequence. An example of this would be a lay up in basketball. This involves driving towards the basket, jumping into the air, and lifting the ball up aiming for the top corner on the backboard. It is clear when each movement starts and finishes but they are linked to another move straight after.

Self-paced skills are skills that are usually closed skills in which the performer controls the rate and the way the skill is performed. An example of this would be performing a dive. The performer is under no stress and can do it in their own time.

Externally paced skills are skills in which involve the environment; the environment controls the rate of the performing skill. This type of skill involves reaction and is usually an open skill. An example would be a sprint start. The runners would react to the gunshot and start the race.

Coaches/Teachers needs to be able to specify the different skills needed for the different sports and also need to know the level at which the learners are at so they can focus on the different levels of practise (cognitive, associative, autonomous) Teaching gross skills to a snooker player or teaching an experienced sportsperson (at the autonomous stage) basic skills (cognitive skills) will not improve his performance therefore the practise will be useless to the person taking part. The specific sport will have precise skills needed and this will be the coach/teachers job to investigate or know about before making the practises. Applying different types of training will be helpful in different areas. To practise for open and interactive skills variable practise would be ideal. Variable practise is when a skill is practised in a variety of different situations and the sportsperson will experience the full range of circumstances in which the sport involves. The learner can use different environments to practice, allowing both the development of the skill and the ability to adapt the skill to a range of possible situations.

Fixed practise is when a specific movement is practised repeatedly. Closed, interactive and coactive skills tend to require fixed practice to allow the motor sequence to be perfected, since they will remain the same in practice, as they will in competition they do not require adapting to the environment.

It is clear that all these skills are all interlinked together one way or another and sometimes you can get some sports executing both opposites skills such as in table tennis, the skills being performed can be open and closed depending on other variations how other skills come into practise with these two particular skills.

Advanced PE for Edexcel (2000) Publishers- Heinemann, Oxford UK
Advanced Physical Education & Sport (2000) Publishers - Stanley Thornes,
Cheltenham UK
www.google.co.uk
www.brianmac.co.uk

Word count- 1278