Discuss the differences between skill, ability and technique and explain how you would structure practices to enchance those components of fitness.

Objectives

This essay will investigate the differences between skill, ability and technique and the way in which they are related it will also discuss how sports practices can be structured to develop these three components of fitness.
In order to do this, the following will be discussed

- What is skill, types of skill and how they are related
- What are abilities and how they are different to skills
- Types of ability and how they are linked
- Ways in which abilities can be enchanced
- What is technique
- How technique, ability and skill are related
- How technique is practiced and ways in which it can improve.
- Conclusion- other influential factors that affect performance

When we watch elite athletes perform we say they are skilful. 'A skilled movement is one in which a predetermined objective is accomplished with maximum efficiency with a minimum outlay of energy.' *Honeybourne et al, 2000* . For example take David Beckham, we see him as skilful because he shows consistency in his performances, his work rate is always very high. He is confident and in control with the ball when dribbling and is focussed on an objective, either to pass it to one of his team mates in a better position than he is, carry on with the ball nearer to the goal or take a chance with a shot from his current position. Whatever option he chooses he must be accurate or the ball could be played to an opponent.

The above underlined factors are innate abilities that David Beckham possesses for example his speed is related to his genetic make up of number of fast twitch fibres. The biomechanics of the way he dribbles the ball or how he passes the ball to another team player are examples of his technique. Hence the following formula can be constructed.

SKILL = ABILITY + TECHNIQUE
Galligan et al, 2000

There are 3 main types of skill (***see appendix I***). However performance is sport is an extremely complex process and relies on more than one type of skill being demonstrated. Most skills are referred to as perceptual motor skills as they involve thought, interpretation and movement; cognitive skills, perceptual skills and motor skills. For example a hockey player has to plan tactics and strategies (cognitive skills) if they interpret an opponent approaching (perceptual skills) and so solve the situation by passing to another team player (motor skills).

'Abilities are inherited, innate and generally enduring traits that an individual possesses allowing them to complete various skills' *Galligan et al, 2000*. Therefore it can be said that abilities are different to skills in the way that they are a component of fitness that have general attributes (i.e. reaction time, speed of movement, response orientation and manual dexterity) that aid skill. Abilities can be categorised into psychomotor ability and gross motor ability (***see appendix ii for definitions***). Strength (gross motor ability) is necessary for a successful rugby tackle. It will be unlikely for

someone to become a skilled basketball player if they have poor manual dexterity (psychomotor ability). They might be better suited to a sport that does not involve object manipulation.

Sports require specific skills and consequently specific skills require specific abilities (***appendix iii***)

Ability is believed to be genetically determined. However research has revealed that that some abilities can be enhanced to an extent especially during early childhood.

'Technique is the perfect movement and its outcome, as defined by the requirement of sport.' *James et al 2000*. A tennis player must have the right technique when performing a serve, their racquet should hit the ball at the correct angle in order for it to be played to a specific point on the other side of the net, however if abilities such as hand- eye co- ordination and strength are lacking the serve will be unsuccessful hence unskilled. This can also be interpreted reversely. A karate performer demonstrating a jumping front kick may possess the necessary abilities such as speed, balance and flexibility to perform this skill. However if the knee is not lifted at the correct moment in time the kick will be unskilled. Other examples showing how skill and technique do not necessarily correlate are when a golfer with a technically perfect swing would be inefficient without a degree of accuracy and a discus thrower with the perfect turn would be inefficient without the speed and strength to propel the discus. All the above examples prove that skill = ability + technique. In the way that lacking in ability and/ or technique will cause a problem with the type of skill being performed.

'The efficiency of your swimming stroke is the key to success as a competing or training swimmer,' *Peak Performance July 2000*. This can be explained in the way that the efficiency of a stroke will significantly reduce wasted energy output through less drag in the water and a cleaner execution of hand and arm entry and recovery. When energy resources of all competitors racing are depleted the winner will be the swimmer that withholds the best stroke technique.

Technique can be taught in two main ways; learning the whole method or learning the part method. When technique is being practiced abilities are also incorporated. For example when the technique of an axe kick in karate is being practiced abilities such as flexibility to gain height on the kick and balance to avoid stumbling on one leg are necessary. So we can rightfully say that when practicing a technique you are really practicing a skill.. A person learning a skill in the part method, for example shot putt whereby it is possible to isolate actions of the skill can be in danger of becoming a perfectionist at one particular action and not being able to relate that part to the total skill.

In competition it is possible for two participants to share the same innate abilities and technique yet one is still able to outwin the other. This is due to other influential factors. The main being practice. Practice must be regular and controlled. A good coach notices when a player is bored with a particular practice, to the extent where movements are becoming routine and lacking in purpose and so changes tact of the session to either a short break or a new challenge to enhance the quality of the session. The environment of the training location also has an effect on performance. An athlete training at high altitude tends to have larger numbers of red blood cells

therefore oxygen is transported more efficiently around the body. Age is also accountable, the older a competitor, the more competitive experiences they have generally encountered and they can adapt to the environment quickly. Concentration and determination vary in the type of upbringing of the participant and largely affect performance. Correct diet and sufficient water content inside the body whilst exercising is essential. Sprinters wear tightly fitted clothes in order to maintain a streamlined shape.

Appendix

I- 3 main types of skill

- Cognitive skill (*Honeybourne et al, 2000*)- Skills that involve the intellectual ability of the performer. These skills affect the perceptual process and help us to make sense of what is required in any given situation. They are essential if the performer is to make correct and effective decisions.
- Motor skill (*Honeybourne et al, 2000*)- An action or task that has a goal and that requires voluntary body and/ or limb movement to achieve the goal
- Perceptual skill (*Galligan et al 2000*)- involve interpretation of stimuli. We may see the same information as someone else, but our brain might interpret it differently from them.

II Definitions of Gross motor abilities and Psychomotor abilities (*Honeybourne et al, 2000*)

- Gross motor ability- ability involving actual movement- strength, flexibility, speed.
- Psychomotor ability- Our ability to process information regarding movement and then to put our decisions into action. Psychomotor abilities include reaction time and limb coordination.

III Sports require specific skills and consequently specific skills require specific abilities. There are around 25 known sporting abilities and individuals possess varying quality and amounts of these abilities depending on their genetic make- up. If a person appears to have an underlying ability for a specific skill, for example good hand- eye co- ordination then this ability can develop fundamental motor skills such as throwing, kicking and catching which can then aid the development of sports specific skills such as an accurate fast spinned cricket bowl. However successful sports performers that practice a wide range of sports are suggested to possess a superability which underlies and aids specific groups of abilities that are necessary for most types of skill production. For example speed and flexibility are essential in practically every sport skill.

IV Top Tots programme provides children from the age of eighteen months to three years with a fun introduction to physical activity. This programme caters for such a young age range consists of a rucksack containing colourful, tactile and safe equipment which has been proven to develop physical skills, movement and co-ordination, concentration and encouraging co- operative play with others

V In the early stages of learning abilities that are known as perceptual abilities (concentration, cue reading, attention and vision) are important. However in the later stages of learning making use of perceptual abilities are replaced with 'an inner sense of feeling that this movement is correct,' *2.3.3* this is called kinaesthesis (***see appendix vi***). This involves making use of more specific and fewer abilities.

VI Definition of Kinesthesis (*Honeybourne et al, 2000*)
This is the information we hold within ourselves about our body's position. The information comes from receptors found in the muscles, tendons and joints. The term proprioception is often used in the same way.

References

Books used

Title	Author	Date published and publisher	ISBN
Advanced PE for Edexcel	Frank Galligan Colin Maskery Jon Spence David Howe Tim Barry Andy Ruston Dee Crawford	2000, Heinemann	0-435-50643- 9
The complete A- Z Physical education handbook	Rob James Graham Thomson Nesta Wiggins	2000, Hodder and Stoughton	0-340-77213-1
Advanced Physical Education and sport for A- Level second edition	John Honeybourne, Michael Hill Helen Moors	2000, Stanley Thornes	0-7487-5304-4
Advanced Studies in Physical Education and Sport	Paul Beashel and John Taylor	1996, Nelson	0-17-448234-5
Training for peak performance	Wilf Paish	1991, A & C Black	0-7136-3404-9

Websites used
www.youthsportstrust.co.uk for information on TOPS programmme

Magazines used
Peak Performance July 2000