

Name:

Date:

Topic 5.1 #2

IB SEHS



**The Stability of the environment**

**The Size of the musculature**



Open -----Closed

Fine -----Gross

**The distinctiveness of movement characteristics**



State the relationship between: skill, ability & technique

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### 5.1.5 Outline Ability

- The term “\_\_\_\_\_” is often confused with the term \_\_\_\_\_, however, although they are related, they are \_\_\_\_\_ the same thing.
  - As mentioned in the previous section, skills are largely \_\_\_\_\_ by their \_\_\_\_\_, goal or objective, and by the fact that they \_\_\_\_\_ practice.
  - **Abilities, however, are the \_\_\_\_\_ that we are born with.**
    - They are the \_\_\_\_\_ and \_\_\_\_\_ attributes, inherited from our parents that enable us to perform skills. Abilities give us the capacity to perform skills.
  - **Perceptual-motor abilities** are \_\_\_\_\_ that enable the individual to \_\_\_\_\_ information about how and when to move.
    - For example, in order to \_\_\_\_\_ a skill such as a forehand groundstroke in tennis.
  - **Motor abilities** are those abilities relating to the actual \_\_\_\_\_.
    - For example, in order to perform a skill such as the 100 meter sprint individuals require \_\_\_\_\_ abilities such as \_\_\_\_\_ strength and speed of limb movement.
- Abilities are the \_\_\_\_\_ that enable individuals to perform the skill and, compared to skills, they are much more stable and \_\_\_\_\_.
- Other examples of the abilities that enable us to perform sports skills are \_\_\_\_\_ endurance, \_\_\_\_\_, flexibility, \_\_\_\_\_ and balance.
- Individuals \_\_\_\_\_ in the strength of their abilities.
  - Those individuals who have \_\_\_\_\_ abilities that benefit a \_\_\_\_\_ skill or activity will appear to demonstrate \_\_\_\_\_ in that activity with relative ease.
  - However, it is only with practice that someone becomes truly \_\_\_\_\_
  - It is important to \_\_\_\_\_ that ability is not the only factor that contributes to \_\_\_\_\_ performance.
  - Failure to \_\_\_\_\_ in practice time may also result in a below-par (low skill level) performance.

#### Factors affecting abilities

1. An individual’s abilities are shaped by biological and physiological factors (Fleishman, 1964).
2. The composition of an individual’s muscular tissue is certainly going to affect their physical proficiency motor abilities such as strength, endurance, and flexibility.
3. Physiological deficits in the development of rods and cones (in eyes) would also limit an individual’s perceptual-motor abilities, potentially affecting reaction time.
4. Abilities are also affected by environmental factors. For example, children who are afforded formal education will continue to develop their verbal and reasoning abilities throughout their academic years, just as children who participate in physical fitness- or sport-related programs will develop their motor abilities.
5. The rate at which abilities develop varies across childhood and adolescence, both within individuals and across individuals. This is largely due to growth and maturation changes. The rate of development levels out between the ages of 18 and 22 years, remaining relatively stable throughout adulthood (Fleishman, 1964)

### 5.1.6 Distinguish between Fleishman's physical proficiency abilities & perceptual motor abilities

- One of the major researchers into abilities was Edwin \_\_\_\_\_ . Using a \_\_\_\_\_ method called factor analysis **Fleishman** identified a number of abilities.
  - **Physical proficiency abilities** consist of \_\_\_\_\_ movements/use of \_\_\_\_\_ muscle groups (ex physical factors).
  - **Perceptual motor abilities** are a \_\_\_\_\_ of how we make sense of our \_\_\_\_\_ (perception) and how we act (motor control) (ex psychomotor factor).

PERCEPTUAL-MOTOR ABILITIES	PHYSICAL PROFICIENCY ABILITIES
Control precision [control over fast, accurate movements that use large areas of the body]	Extent (or static) flexibility
Multi-limb coordination	Dynamic flexibility
Response orientation [selection of the appropriate response]	Static strength
Reaction time	Dynamic strength
Speed of arm movement	Explosive strength
Rate control [coincidence-anticipation]	Trunk strength
Manual dexterity	Gross body coordination
Arm–hand steadiness	Gross body equilibrium
Wrist–finger speed [coordination of fast wrist and finger movements]	Stamina [cardiovascular fitness]
Aiming	
Postural discrimination [coordination when vision is occluded]	
Response integration [integration of sensory information to produce a movement]	

### 5.1.7 Define the term technique

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### 5.1.8 State the relationship between ability, skill and technique

- We have used the words “ \_\_\_\_\_ control” to describe how we act or move.
  - Another word that can be used to describe how we move is “ \_\_\_\_\_”.
  - When physical educators and \_\_\_\_\_ talk about technique they are commenting on the way the \_\_\_\_\_ controls his or her limbs.
  - It is a part of what we mean by skill but not the only part.
  - In order to perform \_\_\_\_\_ the **person must have the \_\_\_\_\_ technique** or techniques and **choose the \_\_\_\_\_ one to use in any particular situation.**
- In other words: **Skill = Ability + Selection of the correct technique**

### 5.1.9 Discuss the differences between a skilled and a novice performer

- Skilled
  - Watching highly skilled performers is uplifting.
  - Everything they do looks \_\_\_\_\_.
  - Their movements are \_\_\_\_\_, they know what they want to achieve and how to achieve their goals.
  - They are very efficient, energy is not \_\_\_\_\_ and there is great \_\_\_\_\_ in their performances
  
- Novice
  - Novices are \_\_\_\_\_.
  - They can and do \_\_\_\_\_ produce a good performance but \_\_\_\_\_ they do not.
  - They are far from \_\_\_\_\_ and appear to lack \_\_\_\_\_.
  - Their \_\_\_\_\_ are inefficient and often we cannot tell what they are trying to do.
  - Sometimes they do not \_\_\_\_\_ what they are trying to do.

**Are genetics the most important factor in becoming a skilled performer?**