

Session 2

Components of Physical Fitness and the Principles of Exercise

A. Introduction

This session covers the foundation, techniques, concepts and terminologies used in Physical Education and provides activities in different movement patterns and physical engagement in conjunction with principles of holistic lifelong fitness. The embedded activities emphasize ways on how students will develop or enhance their physical, social, emotional and mental ability.

B. Session Objectives

- ✓ Describe the fundamentals, concepts and components of physical fitness and physical activities derived from the CHED CMO 39 and 40 series of 2021.
- ✓ Describe the significance of physical activities in promoting the holistic development of learners.
- ✓ Respect each other's opinions/ perspectives/ views about the topics.
- ✓ Input insights about the best ways to promote lifelong fitness among learners.

C. Session Content

1. Topic 1 : COMPONENTS OF PHYSICAL FITNESS

Physical fitness is simply the ability of the body systems to efficiently work together. A totally fit person is able to carry out the typical daily activities or routine such as work in school and or at home and still have enough energy to attend to emergency activities, which are not part of daily

routine like going out with friend, playing basketball or doing enjoyable leisure time activities. This illustrates a positive state of well-being.

The regular movement of muscles through a variety of exercises or physical activities bring an improved physical fitness. Maintaining a certain level of physical fitness is a lifelong process and should always be part of our lifestyle. People with movement limitations or with special needs can also attain of physical fitness by doing exercises appropriate to their conditions.

There are two aspects of Physical Fitness and these are **Health-related Fitness Component** and **Performance-related or Motor Skill-related Fitness Component**.

Health-related Fitness Components

Cardiovascular Endurance – the ability of the heart, lungs, and vascular system to supply oxygen and nutrients to muscles during activity.



Figure 1: Photos owned by the author. In the photos: Flores, J., Dizon, R., Naranio, R., Allam, R., Sembrano, L., & Tiongson, J.



Muscular Strength – the ability of the muscles to exert one maximum effort.

Muscular Endurance – the ability of the muscles to exert force for an extended time.

Figure 2: Photos owned by the author. In the photos author's PE students



Figure 4: Pre & Post Work out Flexibility Exercise by HealthKart.
(Source: Nehra, A. 2023:Online)

Flexibility – the ability of the various joints of the body to move through their full range of motion.

Body Composition – the proportion of lean body mass to fat body mass.

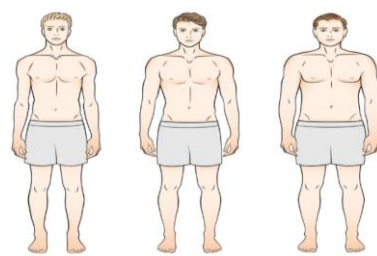


Figure 3: Sheldon's Constitutional Theory: Somatotyping.
(Source: Nickerson, C. 2024:Online)

Performance-related or Motor Skill-related Fitness Components

Agility – the ability to change direction quickly while the body is in motion.



Figure 5: Photos owned by the author.
In the photos author's PE students

Balance – the ability to maintain one's equilibrium in relation to the force of gravity.

- *Static balance* – the ability to maintain balance in a fixed position.
- *Dynamic balance* – the ability to balance while the body is in motion.



Figure 6: Photos owned by the author.
In the photos author's PE students

Coordination – the ability to integrate separate motor systems with varying sensory modalities into efficient movement.



Figure 7: Photos owned by the author. In the photos author's PE students

Reaction time – the amount of time elapsed from the time the senses signal the need to move to the first movement of the body.

Speed – the ability to move from one point to another in the shortest time possible..



Figure 8: Photos owned by the author. In the photo are the author's players.

2. Topic 2

FUNDAMENTAL BODY MOVEMENTS CONCEPTS AND FORMS

1. Locomotor Skills : these are the movements that requires a person to move from one place to another or to simply change directions when moving. These movements include walking, jumping, hopping, skipping, leaping, sliding and galloping.

2. Non-locomotor Skills: the movement skills that do not require changing directions or places. All activities classified as non-locomotor are only held in a stationary place like stretching, pushing, pulling, twisting, circling and many more.

3. Manipulative Skills: these are the movement skills that use manipulative objects such as balls, hoops, racket that aims to increase the coordination of the hand-eye and hand and foot dynamics.

4. Specialized Skills: these types of skills involves specific and refine movements that are intended to a particular activity or technique.

Fundamental Positions where most Exercises begin

A. Arm Positions

- | | |
|------------------|---------------------------|
| 1. arms on side | 5. arms oblique positions |
| 2. arms sideward | 6. folded arms |
| 3. arms forward | 7. arms thrust |
| 4. arms upward | |

B. Body Positions while standing, sitting, kneeling, and lying down

Standing

1. feet together
2. feet apart / straddle
3. lunge position
4. knee bend positions

Sitting

1. long sitting
2. straddle long sitting
3. elbow-support

Kneeling

1. kneel-sitting

Lying

1. supine
2. prone

3. Topic 3

THE GENERAL PRINCIPLES OF EXERCISE

Exercise is a process of preparing the body and its system to work together to move in natural way. It is part of physical activity that is planned, structured, and repetitive for the purpose of improving and maintaining the

components of physical fitness. There are obstacles or hindrances in engaging to the regular exercise program and these are:

Lack of time	Family obligations
Lack of facilities	Illness
Lack of knowledge	Lack of success
Lack of family or peer support	Injuries
Procrastination	Bad weather

4. Topic 4

Principles of Fitness Development:

Principle of Overload – increasing the amount of work done or reducing the period of time which the same amount of work is accomplished. It is requiring your body to do more than it normally does. **Principle of Progression** – base on the concept that overload of a specific muscle group must be increased systematically over time. The amount of intensity of exercise has to be increased gradually.

Intensity : this refers to the degree of difficulty of an activity or an exercise session.

Duration: refers to how long an activity will take place or how long the exercise session will last.

Frequency: refers to the number of repetitions a session will have in each time allotted for it.

Principle of Specificity – improvement in the various aspects of fitness that is specific to the type of training and to the muscle being exercise. The specific exercise determines the specific benefits receive.

Principle of Individuality – each student improves in level of fitness at one’s own individual rate. The training program should be designed according to the unique requirement of an individual in each exercise session.

Principle of Recovery – this refers to the amount of time or period of rest for the body to recover from fatigue. Enough recovery time allows the body to be prepared for the next session or exercise activity.

Principle of Reversibility – this can be related to the importance of the continuity of the exercise session. This is the regression process of an exercise wherein one have to level down the exercise workload.

D. Conclusion

The kind of activity one must consider when planning to engage in an exercise activity is knowing first what are the components of physical fitness that needs to be given focus. The amount and the level of exercise should also be determined using the basic and progressive principles. Shortcut in anyway in terms of attaining the desired fitness level is a process.

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Perez, A., Santos, A., & Evangelista, T.(2006). "*Active MAPEH II Activity-based and Integrative Worktext in MAPEH for High School students*"