

PART I- Introduction

Unit 1 BASIC CONCEPTS AND ISSUES ON HUMAN DEVELOPMENT

-Brenda B. Corpuz, Ph.D.

“By virtue of being born to humanity, every human being has a right to the development and fulfillment of his potentialities as a human being.”

-Ashley Montagu

INTRODUCTION

Every living creature is called to become what it is meant to be. The caterpillar is meant to become a butterfly; a seed into a full grown herb, bush or tree; and a human baby into a mature person, the person “who is fully alive, the glory of God” in the words of St. Irenaeus.

How this development happens is what we learn in our biology class. We have seen it to be a fantastic process. So wonderful a process that we can't help but experience a feeling of awe for the Power or the Force or the Principle (theists call this Power or Force or Principle (God) behind all these.

The process of development involves beginnings and endings. What was this organism then? What will this organism be?

A number of researches on human development have been conducted. A lot of theories on human development have been forwarded. Researches on human development continue as existing theories get corrected, complemented or replaced. Up to the present several issues on human development are unresolved and so the searches for explanations continue.

In this Unit, you will be acquainted with human development as a process, the developmental tasks that come along with each developmental stage and relevant issues that are raised about human development.

Module 1 HUMAN DEVELOPMENT: Meaning, Concepts and Approaches

-Brenda B. Corpuz, Ph.D.

*“All the worlds a stage,
And all the men and women merely players;
They have their exits and entrances, and one man in his time plays many parts...
-William Shakespeare*

CHALLENGE :

At the end of this module , the students are expected to :
define human development in your own words.
draw some principles of human development.
distinguish two approaches to human development.

INTRODUCTION

As you read this module and do the activity, you will undergo the process of development. What principles govern this development proven? What do experts say about development? These are the concerns of this Module.

DEFINITION

MEANING OF HUMAN DEVELOPMENT

Change in the child that occurs over time. Changes follow an orderly pattern that moves toward greater complexity and enhances survival.

Human development is the pattern of movement or change that begins at conception and continues through the life span. Development includes growth and decline. This means that development can be positive or negative (Santrock, 2002).

Some major principles of human development

Here are some major principles of human development:

1. Development is relatively orderly. (<http://www.cdipage.com/development.htm>)
Naschielle and Kenn will learn to sit crawl then walk before they can run.

PROXIMODISTAL- The muscular control of the trunk and the arms comes earlier as compared to the hands and fingers.

CEPHALOCAUDAL- During infancy, the greatest growth always occurs at the top- the head- with physical growth in size, weight and future differentiation gradually working its way down from top to bottom.

2. While the pattern of development is likely to be similar, the outcomes of development processes and the rate of development are likely to vary among individuals. (<http://www.cdipage.com/development.htm>)
Naschielle and Kenn may become were premised on many “ifs”. Meaning if they come from a good home with loving and caring parents they may develop into warm and responsible children, adolescents and adults. If they come from a deprived environment, they may develop into carefree and irresponsible adolescents and adults.
3. Development takes place gradually. (<http://www.cdipage.com/development.htm>)
Naschielle and Kenn won’t develop into pimply teenagers overnight. It takes years before they become one. In fact, that’s the way of nature. The seed does

not germinate overnight. While some changes occur in a flash of insight, more often it takes a week, months, or years for a person to undergo changes that result in the display of development characteristics.

4. Development as a process is complex because it is the product of biological, cognitive and socioemotional processes (Santrock, 2002). These biological, cognitive and socioemotional processes are inextricably intertwined.

BIOLOGICAL - processes involve changes in the individual's physical nature. The brains of Naschielle and Kenn develop. They will gain height and weight. They will experience hormonal changes when they reach the period of puberty, and cardiovascular decline as they approach late adulthood.

COGNITIVE – processes involve changes in the individual's thought, intelligence, and language. Naschielle and Kenn develop from mere sounds to a word becoming two words, the two words becoming a sentence. They would move on to memorizing their first prayer, singing Bayang Magiliw in every flag ceremony to imagining what it would be like to be a teacher or a pilot, playing chess and solving complex math problem.

SOCIOEMOTIONAL – processes include changes in the individual's relationships with other people, changes in emotions, and changes in personality. As babies, Naschielle and Kenn responded with a sweet smile when affectionately touched and frowned when displeased and even showed temper tantrum when they could not get or do what they wanted. From aggressive children, they may develop into a fine lady and a gentleman or otherwise, depending on a myriad of factors. They may fall in love and get inspired for life or may end up betrayed, deserted and desperate afterwards.

Two approaches to human development

1. **TRADITIONAL APPROACH** - If you believe that Naschielle and Kenn will show extensive change from birth to adolescents, little or no change in adulthood and decline in late old age.
2. **TERMED LIFE-SPAN APPROACH** - In contrast, if you believe that even in adulthood development change takes place as it does during childhood.

What are the characteristics of the life-span perspective? Paul Baltes (Santrock, 2002), an expert in **LIFE-SPAN DEVELOPMENT**, gives the following characteristics:

1. **Development is lifelong.** It does not end in adulthood. No developmental stage dominates development.
2. **Development is multidimensional.** Development consists of biological, cognitive, and socioemotional dimensions
3. **Development is plastic.** Development is possible throughout the life-span.
4. **Development is contextual.** Individuals are changing beings in a changing world.
5. **Development involves growth, maintenance and regulation.** Growth, maintenance and regulation are three (3) goals of human development.

APPLICATION

1. "Growth is an evidence of life." What does this mean?
2. Define development in your own words.
3. State the 5 major principles of human development from a life-span perspective. Give at least one application of each principle in the teaching-learning process.

4. Research further on the cephalocaudal and proximodistal patterns of development.
 - a. Illustrate both patterns by a drawing or diagram.
 - b. How do you apply your knowledge of cephalocaudal and proximodistal patterns in your teaching?
5. In the light of researches on human development, which of the two approaches is closer to the truth traditional or lifespan? Why?

BIG IDEAS

Do the following to ensure mastery of the big ideas presented in this chapter.

1. Meaning of human development _____
2. Four principles of human development and their educational implications.

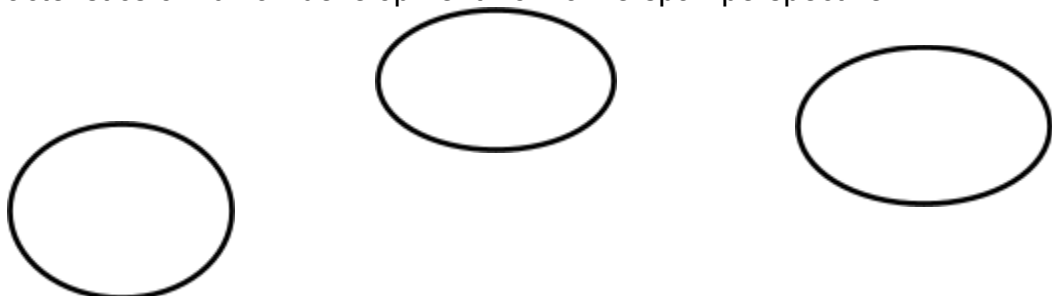
PRINCIPLE	EDUCATIONAL IMPLICATION
1.	
2.	
3.	
4.	

3. Patterns of development
 - a. The direction of growth following the cephalocaudal pattern is from _____ to the _____.
 - b. The direction of growth following the proximodistal pattern is from _____ to the _____.
4. Two approaches to human development

TRADITIONAL vs. LIFE-SPAN APPROACH

CONCEPT	APPROACH	
	Traditional	Life-span
Development during childhood		
Development during adulthood		
Developmental stage/s as focus of study		

5. Characteristics of human development from a life-span perspective.





Module 2 THE STAGES OF DEVELOPMENT AND DEVELOPMENTAL TASKS

-Brenda B. Corpuz, Ph.D.

“Who are you? asked the caterpillar. Alice replied rather shyly, “I - I hardly know, Sir, just at present – at least I know who I was when I got up this morning but I must have changed several times since then.”

-Lewis Carroll

CHALLENGE :

In this Module, you are challenged to:

Define developmental tasks in an experiential manner.

Identify developmental stages of learners in different year levels.

Describe the developmental tasks in each stage.

State for yourself how these developmental tasks affect your role as a facilitator of learning.

INTRODUCTION

For every developmental stage, there is an expected developmental task. What happens when the expected developmental tasks are not achieved at the corresponding developmental stage? How can you help children achieve these developmental tasks?

DEFINITION

PERIODS OF DEVELOPMENT

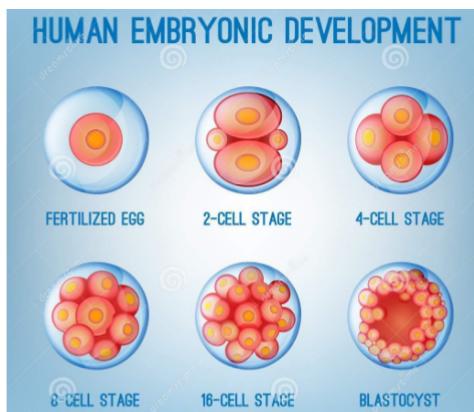
1. **Pre-natal Stage**- from conception (when the ovum is fertilized by the spermatozoon producing a zygote or fertilized egg) to the time of birth.
2. **Babyhood/Infancy** (0-2 years old) - foundation age when basic behavior patterns are organized and many ontogenetic skills emerge.
3. **Early Childhood** (2-6 years old) - characterized as pre-gang, exploratory and questioning age. Language and elementary reasoning are acquired and initial socialization is experienced.
4. **Late Childhood** (6-12 years old) - Gang age, age of creativity, development of social, self-help, play and school skill.
5. **Adolescence** (13-19 years old) – transition age from childhood to adulthood when sex maturation and rapid physical development occurs resulting to changes in way of feeling, thinking and acting.
6. **Early Adulthood** (19-40 years old) – age of adjustment to new patterns of life and new roles such as spouse , parent and bread winner.

7. **Middle Age** (40-retirement years – transition age when adjust to initial physical and mental decline are experienced).
8. **Old Age** (retirement-death) – increasing rapid physical and mental decline. Psychological as well as physical illnesses are experienced.

PRENATAL DEVELOPMENT

Development happens quickly during the **prenatal period**, which is the time between conception and birth. This period is generally divided into three stages:

1. **The Germinal Stage** – the two weeks period after conception. **Conception** occurs when a sperm cell combines with an egg cell to form a **zygote**. About thirty-six hours after conception, the zygote begins to divide quickly. The resulting ball of cells moves along the mother’s fallopian tube to the uterus



<https://thumbs.dreamstime.com/z/embryo-development>

Around seven days after conception, the ball of cells starts to become embedded in the wall of the uterus. This process is called **implantation** and takes about a week to complete. If implantation fails, as is quite common, the pregnancy terminates. One key feature of the germinal stage is the formation of a tissue called the **placenta**.

The **placenta** has two important functions:

- Passing oxygen and nutrients from the mother’s blood into the embryo or fetus.
- Removing waste materials from the embryo or fetus.

2. The Embryonic Stage

Also known as the period of embryo.

The cell known as zygote before is now known as embryo.

By the 14th day after fertilization, the blastocyst is already implanted in the uterus.

The umbilical chord attaches the placenta functionally to the mother.

The foundations for the eyes, ears, nose, mouth extremities (upper and lower) and the digestive system have been laid on the 8th week.

The 1 ½ inches long embryo, weighing one- tenth to one- fifteenth of ounce, develops at the end of the first month. This period is considered as the most critical period for the reason that the embryo is most vulnerable to damage and defect.

During the first trimester (3 months of pregnancy) almost all birth defects occur and chances are, the defects will be permanent.

3. The Fetal Stage

- Fetal Period (8 weeks to birth)
- Also called as the period of the fetus.
- The embryo before is now known as fetus in this stage.
- The fetal stage begins with the formation of the first bone cells.
- Various organs grow functionally and take the appearance of the human body.
- The fetus can now kick and can manipulate its extremities (upper and lower) and can open its mouth, frown, and turn its head, as well as take a few “breaths” by the end of the third month.
- By the end of the fifth month, the fetus is one foot long and weighs a pound.
- At the end of the sixth month, the fetus’ eyelids can be opened; it develops grasps and more than enough taste buds.
- The fetus weighs two pounds and it’s all organ systems have become functional at the end of the seventh month.
- During the eighth and ninth month, the fetus becomes round and heavy and is able to lift its head.

ADVERSE FACTORS AFFECTING FETAL DEVELOPMENT

Although the womb provides protection, the fetus remains indirectly connected to the outside world through its mother. Several factors that are linked to the mother can harm the fetus:

- Poor nutrition
- Use of alcohol
- Smoking
- Use of certain prescription or over-the-counter drugs
- Use of recreational drugs such as cocaine, sedatives, and narcotics
- X- rays and other kinds of radiation
- Ingested toxins, such as lead
- Illnesses such as AIDS, German measles, syphilis, cholera, smallpox, mumps, or severe flu.

APPLICATION

1. Answer this question. What are the implications of these developmental tasks to your role as a facilitator of learning? Let’s pay particular attention to the stages that correspond to schooling – Early Childhood, Middle and Late Childhood and Adolescence.

LET’S DO! ☺

- A. EARLY CHILDHOOD- What are the preschool teachers supposed to do with pre-schoolers?
 - Help them develop readiness for school and to be too academic in teaching approach. They ought to give much time for preschoolers to play. Or perhaps help preschoolers develop school readiness by integrating children’s game in school activities.
- B. MIDDLE AND LATE CHILDHOOD
 - Elementary school teachers ought to help their pupils by _____

C. ADOLESCENCE

- High school teachers ought to help their students by
-
-
-

2. Allow students to do each of the following:
 - a. Come up with an object to symbolize each period or stage of development.
 - b. Do a multimedia presentation of the outstanding characteristics and developmental tasks of each developmental stage. You may use the text of Santrock found under each collage of pictures in the ACTIVITY PHASE of this lesson.
 - c. Sing an appropriate song for each developmental stage.
3. Discuss the meaning of the quotation beneath the title of the lesson. Relate it to the stages of development.
4. Complete this unfinished sentence.
 - Developmental tasks are _____.
5. Show the developmental stages by means of a diagram inclusive of the ages. Write also the outstanding characteristics trait and developmental task of each developmental stage.

REFLECTION

- a. Reflect on your early childhood, middle and late childhood days. Were you able to acquire the developmental tasks expected of early, middle, late childhood and adolescence? What facilitated your acquisitions of the ability to perform such tasks? Write your reflections.
- b. Having mastered the developmental tasks of early childhood middle and late childhood and adolescence, reflect on what you should do as a teacher to facilitate your students' acquisition of these developmental tasks. Write down your reflections.

Module 3 ISSUES ON HUMAN DEVELOPMENT

-Brenda B. Corpuz, Ph.D.

"The interaction of heredity and environment is so extensive that to ask which is more important, nature or nurture, is like asking which is more important to a rectangle, height or width."

-William Greenough

CHALLENGE

In this Module, you are challenged to:
take an informed stand/position on the three (3) issues on development

INTRODUCTION

Each of us has his/her own informal way of looking at our own and other people's development. These paradigms of human development while obviously lacking in scholastic vigor, provide us with a conceptual framework for understanding ourselves

and others. Scholars have come up with their own models of human development. Back up by solid research, they take stand on issues on human development.

APPLICATION

TEST YOUR UNDERSTANDING

As far as our discussions are concerned, which statement is correct and which one is wrong? Put a CHECK before the correct statement and mark WRONG for the wrong one. If you mark a statement WRONG, explain why.

_____ 1. Heredity exerts a greater influence on human development than environment.

_____ 2. What has been experienced in the earlier stages of development can no longer be changed.

_____ 3. From the perspective of life-span developmentalist, later experiences is the key determinants of a person's development.

REFLECTION

1. Relate what you learned here to your personal development. Reflect on your own personal development. What has helped you become the person that you are now? Is what you have become a product of the mere interaction of heredity and environment? Or is what you have become a product of both heredity and environment interacting and what you have decided or determined yourself to become? (Self-determination or freedom is a third factor). Write your reflections.

Module 4 RESEARCHES IN CHILD AND ADOLESCENT DEVELOPMENT

-Brenda B. Corpuz, Ph.D.

-Maria Rita D. Lucas, Ph.D.

"Research is to see what everybody else has seen and to think what nobody else thought."

-Albert Szent- Gyorgi, Hungarian Biochemist

CHALLENGE

In this Module, you are challenging yourself to:

- explain the basic principles of research
- demonstrate appreciation of the role of teachers as consumers and producers of developmental research
- read researches on child and adolescent development and make simple research abstracts out of researches read

INTRODUCTION

You may have a separate 3-unit course on research. This module is not intended to be a substitute for that three-unit course. It is simply meant to supplement what you got or will still get in the Research course.

As you may have noticed, most if not all of what is presented about the development of the child and the adolescent are products of research. It might interest you to know how these concepts/ theories were arrived at. Or after having been

exposed to a number of researches cited in this course, hopefully, you may be so inspired that you, too, would like to start conducting researches on your own or join a group for research.

DEFINITION

Teachers as Consumers/End Users of Research

-Research gives teachers and also policy-makers important knowledge to use in decision-making for the benefit of learners and their families. Research enables teachers to come up with informed decision on what to teach and how to teach.

Teachers as Researches

-The conduct of research does not only belong to thesis and dissertation writers. It is for students and Teachers, too. Let us learn on how to conduct research by finding out the different research principles and the research methods and designs with focus on child and adolescent development.

The scientific Method

-One important principle in research is adherence to the scientific method, since research is a systematic and a logical process. As such, researches basically follow the scientific method. Dewey gave us 5 steps of the scientific method. They are as follows:

1. identify and define the problem
2. determine the hypothesis
3. collect and analyze data
4. formulate conclusions
5. apply conclusions to the original hypothesis

Research Designs

-Researches that are done with high level of quality and integrity provide us with valuable information about child and adolescent development. To be able to conduct quality research, it is important that you know various **research designs** and different **data-gathering techniques** used by developmental researchers.

Ethical Principles

-To serve the genuine purposes of research, teacher researches are subject to ethical principles. Just as we have the Code of Ethics that governs the behavior of teachers, there also exist ethical standards that guide the conduct of research.

Impact of Teachers' Research Involvement on Teachers

-Research itself has proven that teachers have everything to gain and nothing, to lose when get involved in the research process.

-Teacher involvement in the conduct of teacher research shows a shift from thinking about teacher research as something done **to** teachers to something done **by** teachers (Zeichner 1999; Lampert 2000).

APPLICATION

A Research Abstract- A research abstract is a brief summary that appears at the beginning of the article. It has the following parts:

- Title
- Researcher/s
- Date of Research
- Introduction

Methods
Findings/Results of the Study
Conclusions and Recommendations
References

NOTE: Surf the internet for samples of research abstracts/researches on child and adolescent development. Select one research abstract then using the matrix given below, write the problem, the research methodology, the findings and conclusions.

REFLECTION

It is said that because teachers are overloaded with work, they usually frown on the conduct of research. Reflect on the consequences of this attitude. What can be done to prevent this? Write your reflections here.

Module 5 FREUD'S PSYCHOANALYTIC THEORY

-Maria Rita D. Lucas, Ph.D.

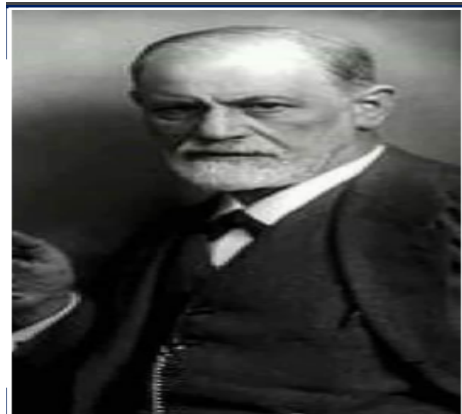
"The ego is not master in its own house."

-Sigmund Freud

CHALLENGE

In this Module, the students are expected to:
Explain Freud's views about child and adolescent development.
Draw implications of Freud's theory to education.

INTRODUCTION

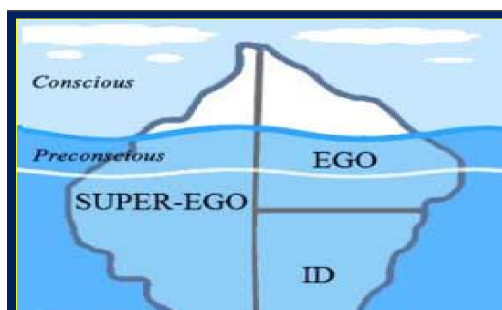


Freud's views about human development are more than a century old. He can be considered the most well-known psychologist because of his very interesting theory about the unconscious and also about sexual development.

Believe that a person's behavior can be motivated by strong unconscious drive or urges toward self-satisfaction.

DEFINITION

FREUD'S PERSONALITY COMPONENTS



THE ID- Freud says that, a child is born with the id. The id plays a vital role in one's personality because as a baby, it works so that the baby's essential needs are met. The id operates on the **pleasure principle**. It focuses on immediate gratification or satisfaction of its needs.

THE EGO- As the baby turns into a toddler and then into a pre-schoolers, he/she relates more with the environment, the **ego** slowly begins to emerge. The **ego** operates using the **reality principle**. It is aware that others also have needs to be met. It is practical because it knows that being impulsive or selfish can result to negative consequences later, so it reasons and considers the best response to situations. As such, it is the deciding agent of the personality. Although it functions to help the **id** meet its needs, it always takes into account the reality of the situation.

THE SUPEREGO- Near the end of the preschool years or the end of the phallic stage, the **superego** develops. The **superego** embodies a person's moral aspect. This develops from what the parents, teachers, and other persons who exert influence impart to be good or moral. The **superego** is likened to conscience because it exerts influence on what one considers right and wrong.

THE TOPOGRAPHICAL MODEL



THE UNCONSCIOUS

- Freud said that most what we go through in our lives, emotions, beliefs, feelings, and impulses deep within are not available to us at a conscious level.

THE CONSCIOUS

- Freud also said that all that we are aware of is stored in our conscious mind. Our conscious mind only comprises a very small part of who we are so that, in our everyday life, we are only aware of a very small part of what makes up our personality; most of what we are hidden and out of reach.

THE SUBCONSCIOUS

- The last part is the preconscious or subconscious. This is the part of us that we can reach if prompted, but is not in our active conscious. Its right below the surface, but still “hidden” somewhat unless we search for it. Information such as our telephone number, some childhood memories, or the name of your best childhood friend is stored in the preconscious.

STAGE – AGE –CHARACTERISTICS

Oral - Birth to 1 ½ y/o Center of pleasure: mouth (major source of gratifications and exploration) Primary need: security Major conflict: weaning.

Anal - 1 ½ to 3 y/o Source of pleasure: anus and bladder (sensual satisfaction and self-control) Major conflict: toilet training.

Phallic - 4 to 6 y/o - Center of pleasure: child’s genital (masturbation) - Major conflict: Oedipus and Electra Complex.

Latency - 6 y/o to puberty - Energy directed to physical and intellectual activities - Sexual impulses represses - Relationship between peers of same sex.

Genital - Puberty onwards - Energy directed towards full sexual maturity and function and development of skills to cope with the environment.

APPLICATION

1. Freud used the case study method to gather the data he used to formulate his theories. Among the many case studies, five really stood out as bases of his concepts and ideas. Do further reading of these case studies and write a reaction paper on one of these case studies focusing on how he explained the personality development of the individuals in the case studies.

From your internet search engine, just type Freud’s case studies. It will be easy to find a pdf file which you can readily download.

2. Note Freud’s ideas about hypnosis, free association and interpretation of dreams. Do you think his ideas are still useful today? Explain your views.

3. RESEARCH CONNECTION

Read a research that is related to Freud’s Theory. Fill out the matrix below.

<p style="text-align: center;">PROBLEM</p>	<p style="text-align: center;">RESEARCH METHODOLOGY</p>
<p>Source: (BIBLIOGRAPHICAL ENTRY FORMAT)</p>	
<p style="text-align: center;">FINDINGS</p>	<p style="text-align: center;">CONCLUSIONS</p>

REFLECTION

From the Module on Freud's Psychoanalytic Theory, I learned that...

Module 6 PIAGET'S STAGES OF COGNITIVE DEVELOPMENT

-Maria Rita D. Lucas, Ph.D.

“The principle goal of education is to create men who are capable of doing new things, not simply of repeating what other generations have done- men who are creative, inventive and discoverers.”

-Jean Piaget

CHALLENGE

In this Module, the students are expected to:

Describe Piaget’s stages in your own words.

Conduct a simple Piagetian Task interview with children.

Match learning activities to the learner’s cognitive stage.

INTRODUCTION



Jean Piaget’s Cognitive Theory of Development is truly a classic in the field of educational psychology. This theory fuelled other researchers and theories of development and learning. Its focus is on how individuals construct knowledge.

DEFINITION

COGNITIVE DEVELOPMENT THEORY

- Children “construct” their understanding of the world through their active involvement and interactions.
- Studied his 3 children to focus not on what they knew but how they knew it.
- Described children’s understanding as their “schemas” and how they use
 - **Assimilation**
 - **Accommodation**
 - **Equilibration**

SCHEMA

-Piaget used the term “schema” to refer to the cognitive structures by which individuals intellectually adapt to and organize their environment. It is an individual’s way to understand or create meaning about a thing or experience.

ASSIMILATION

-This is the process of fitting a new experience into an existing or previously created cognitive structure or schema. If the child sees another dog, this time a little smaller one, he would make sense of what he is seeing by adding this new information (a different looking dog) into his schema of a dog.

ACCOMMODATION

-This is the process of creating a new schema. If the same child now sees another animal that looks a little bit like a dog, but somehow different. He might try to fit it into his schema of a dog, and say, “Look mommy, what a funny looking dog. Its bark is funny too!” Then the mommy explains. “That’s not a funny looking dog, that’s a goat! With mommy’s further descriptions, the child will now create a new schema, that of a goat. He now adds a new file in his filing cabinet.

EQUILIBRATION

-Piaget believed that that people have the natural need to understand how the world works and to find order, structure, and predictability in their life.

Equilibration is achieving proper balance between assimilation and accommodation. When our experiences do not match our schemata (plural of schema) or cognitive structures, we experience **cognitive disequilibrium**. This means there is a discrepancy between what is perceived and what is understood. We then exert effort through assimilation and accommodation to establish equilibrium once more.

PIAGET'S COGNITIVE DEVELOPMENT STAGES

SENSORI-MOTOR STAGE

- ☞ Ages birth - 2: the infant uses his senses and motor abilities to understand the world
- ☞ Object Permanence – is the understanding that objects continue to exist even when they cannot be seen, heard, or touched

PRE-OPERATIONAL STAGE

- ☞ Ages 2-7: the child uses mental representations of objects and is able to use symbolic thought and language.

● **SYMBOLIC FUNCTION**- between the ages of 2 and 4, a child can perform Symbolic Functions or think about objects even though they are not real or present.

● **CENTRATION** - is the tendency to focus on one salient aspect of a situation and neglect other, possibly relevant aspects.

● **INTUITIVE THOUGHT**- means having the ability to understand or know something without any direct evidence or reasoning process.

● **EGOCENTRISM**- is the inability to differentiate between self and other.

● **ANIMISM**- is the belief that objects that are inanimate (not living) have feelings, thoughts, and have the mental characteristics and qualities of living things. They are attaching human qualities and feelings to an inanimate object.

● **TRANSDUCTIVE REASONING** - involves seeing a relationship between two things that are not actually related. Your child may be using transductive reasoning if she tells you that an orange is a ball. Because both the ball and the orange are round, her transductive reasoning tells her that they both must be a ball.

EXPERIMENTAL TASK

-In this task, a child is presented with two identical beakers containing the same amount of liquid. The child usually notes that the beakers do contain the same amount of liquid. When one of the beakers is poured into a taller and thinner container, children who are younger than seven or eight years old typically say that the two beakers no longer contain the same amount of liquid, and that the taller.

Container holds the larger quantity (centration), without taking into consideration the fact that both beakers were previously noted to contain the same amount of liquid. Due to superficial changes, the child was unable to comprehend that the properties of the substances continued to remain the same (conservation).

CONCRETE OPERATIONS STAGE

- ☞ Ages 7-11; the child uses logical operations or principles when solving problems.

● **SERiation**- which refers to the ability to sort objects or situations according to any characteristic, such as size, color, shape, or type

● **CLASSIFICATION**- is the ability to identify the properties of categories, to relate categories or classes to one another, and to use categorical information to solve problems.

● **CONSERVATION**- is the understanding that something stays the same in quantity even though its appearance changes. To be more technical conservation is the ability to understand that redistributing material does not affect its mass, number, volume or length.

● **DECENTERING** (also known as Decentration) refers to the ability to consider multiple aspects of a situation. In Piaget's theory of cognitive development, the third stage is called Concrete Operational stage, where a child age 7-12 shows increased use of logic. One of the logical processes that develop is that of Decentering.

● For example, when asked to choose between two lollipops, a child might choose based on how one flavor is better than the other even though the other is the same size and color.

● **REVERSIBILITY**- which refers to the ability to recognize that numbers or objects can be changed and returned to their original condition

FORMAL OPERATIONS STAGE

👉 Ages 12 up; the use of logical operations in a systematic fashion and with the ability to use abstractions

● **HYPOTHETICAL REASONING**- This is the ability to come up with different hypothesis about a problem and to gather and weigh data in order to make a final decision or judgement.

● **ANALOGICAL REASONING**- This is the ability to perceive the relationship in one instance and then use that relationship to narrow down possible answers in another similar situation or problem.

● **DEDUCTIVE REASONING**- This is the ability to think logically by applying a general rule to a particular instance or situation.

APPLICATION

This activity focuses on a story involving the interaction of family members. Choose a story you want to use for this activity. It can be from a story you have read or a movie or “telenovela” that you watched or plan to watch. Use the matrix below to relate the characters to Piaget’s stages of Cognitive Development.

Title of Story/ Movie: _____

Write a brief summary of the story

REFLECTION

From the module on Piaget’s Stages of Cognitive Development, I learned that...

Module 7 ERIKSON'S PSYCHO-SOCIAL THEORY OF DEVELOPMENT

-Maria Rita D. Lucas, Ph.D.

"Healthy children will not fear life if their elders have integrity enough not to fear death."

-Erik Erikson

CHALLENGE

In this Module, the students are expected to:

Explain the 8 stages of Life to someone you care about.

Write a short story of your life using Erikson's stages as frame work.

Suggest at least 6 ways on how Erikson's theory can be useful for you as a future teacher.

INTRODUCTION

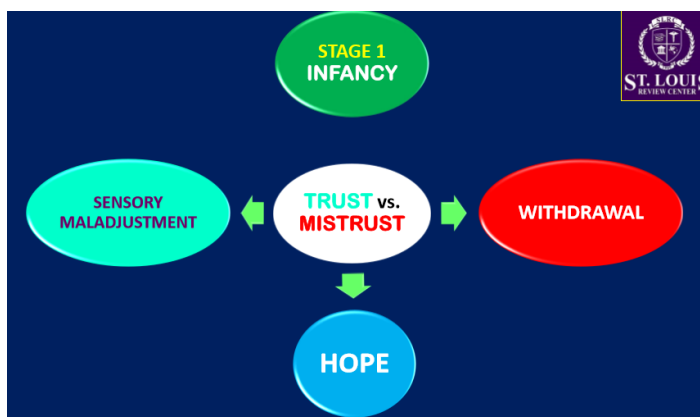


- Erikson's stages of psychosocial development are a very relevant, highly regarded and meaningful theory. Life is a continuous process involving learning and trials which help us to grow. Erikson's enlightening theory guides us and helps to tell us why.
- Erik Erikson was a psychoanalyst who identified eight stages of psychosocial development.
- Epigenetic Principle
- Psychosocial Crisis

DEFINITION

STAGE 1- INFANCY (BIRTH – 1 ½ YEARS OLD)

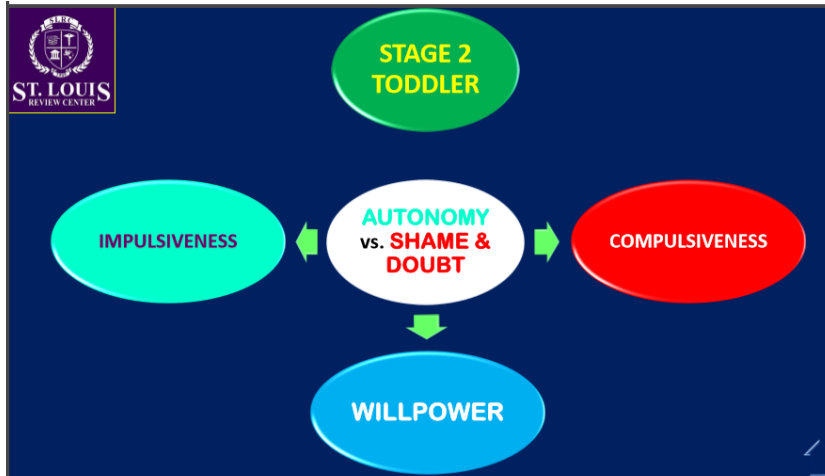
- To develop a basic trust in the mothering figure and to generalize it to others. The child trusts those who care for her and mistrusts a stranger.



*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials.

STAGE 2- TODDLER (1 ½ - 3 YEARS OLD)

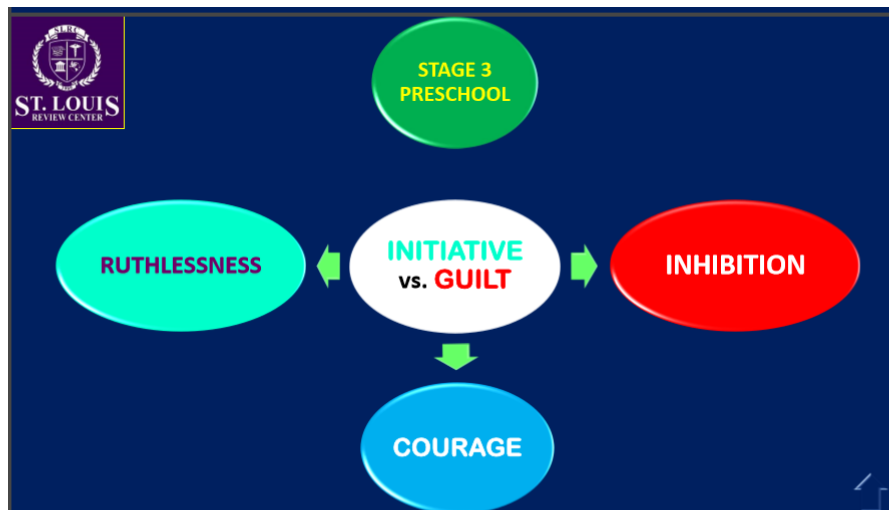
- To gain some self-control and independence within the environment.
- Learns to walk and use his hands
- If encouraged, develops autonomy
- If discouraged and punished harshly and excessively the child develops dependence and shame, doubt and self-pity



*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials.

STAGE 3- PRESCHOOL (3 - 6 YEARS OLD)

- To develop a sense of purpose and the ability to initiate and direct one's own activities - Begins to explore his social and physical world, discovering what he can accomplish
- Aware of various social roles imitates adult's behavior.
- When punished develops sense of guilt.
- The family is responsible for the child's behavior and action.

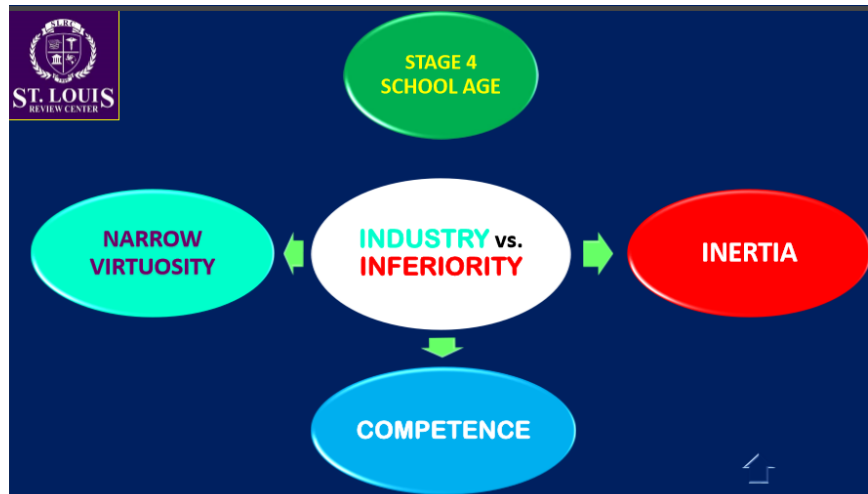


*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials

SCHOOL AGE (6 - 12 YEARS OLD)

- To achieve a sense of self-confidence.
- Child's world broadens

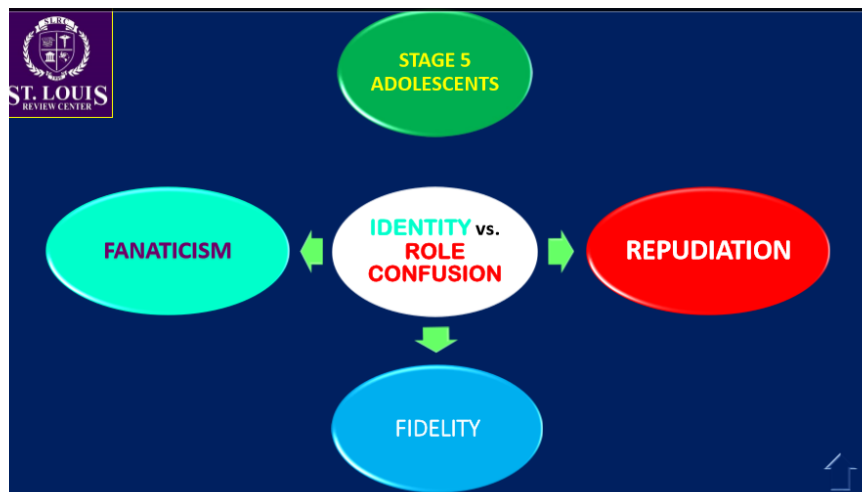
- Technical skills are learned
- Peer group influence Identification and/ or separation with sexes Play age
- When the child cannot accomplish the expectations from him, he develops a sense of inferiority



*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials.

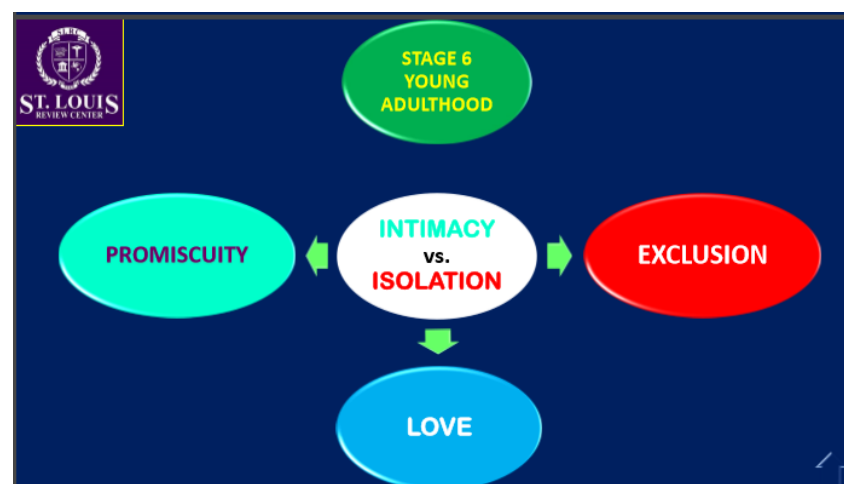
STAGE 5- ADOLESCENTS (12 – 18 YEARS OLD)

- To integrate the tasks mastered in the previous stages into a secure sense of self.
- Always asking Who Am I?
- Struggles with society’s demands and physical changes in his body
- Peer group becomes an essential source of rules of behaviour



*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials. STAGE 6- YOUNG ADULthood (18 - 25 YEARS OLD)

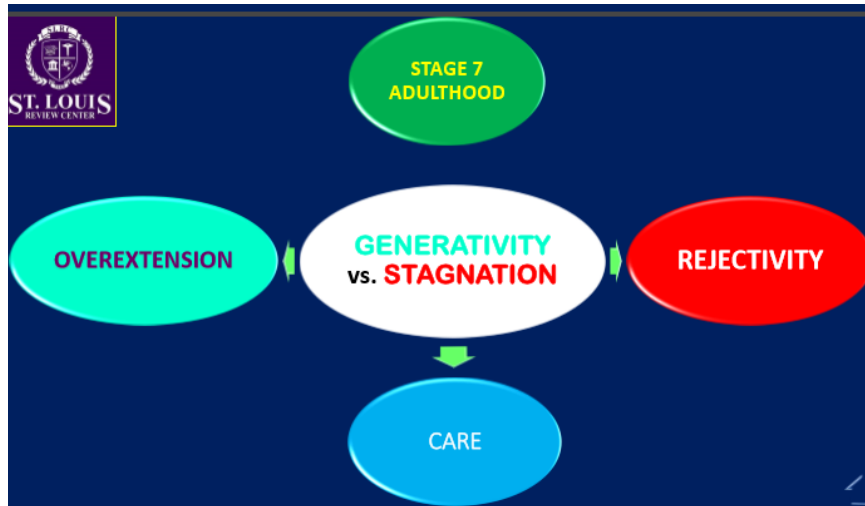
- To form an intense, lasting relationship or a commitment to another person, a cause, an institution, or a creative effort.
- Develops warm intimate relation with another person and failure to develop such relationship results to isolation



*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials.

STAGE 7- ADULTHOOD (25 - 65 YEARS OLD)

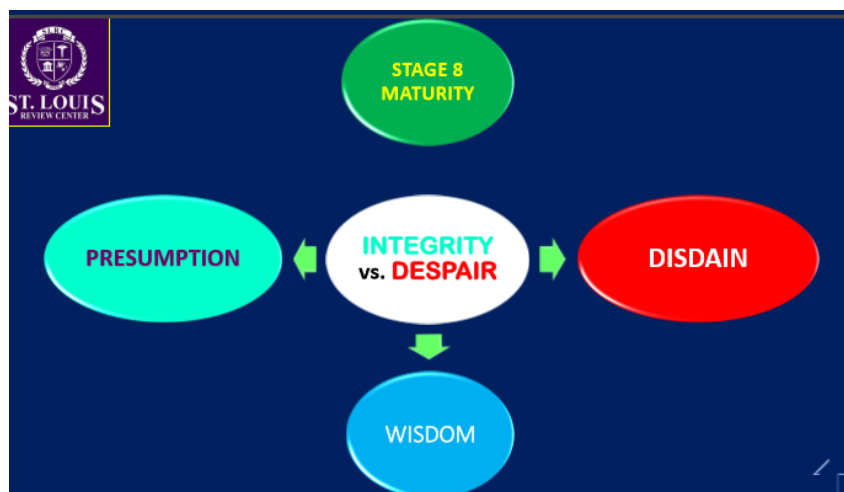
- To achieve the life goals established for one self while considering the welfare of future generations.
- The most productive years of adulthood
- The individual's worth is dependent on his contribution to family and society



*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials.

STAGE 8- MATURITY (65 - DEATH)

- To review one's life and derive meaning from both positive and negative events, while achieving a positive sense of self.
- The individual comes to the temporal limits of his life
- The period of achievement and sense of integrity
- Failure to achieve one's goals results to regret and despair.
- Fear of the end of life



*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials.

APPLICATION Write your own life story using the stages of psychosocial development as framework. Go through each of the stages that apply to you (most probably, stages 1-5 or 6). Ask information from your parents and other significant

persons in your life. Look at old baby books and photo albums. Also, include the results of your questionnaire in the activity section. Write a narrative for each stage.

REFLECTION: From Erikson’s Stages of Psycho-social theory of development , I learned

Module 8 KOHLBERG ’S STAGES OF MORAL DEVELOPMENT

-Maria Rita D. Lucas, Ph.D.

“Right action tends to be defined in terms of general individual rights and standards that have been critically examined and agreed upon by the whole society.”

-Lawrence Kohlberg

CHALLENGE

In this Module, the students are expected to:

Explain the stages of moral development

Analyze a person’s level of moral reasoning based on his responses to moral dilemmas.

Cite how the theory of moral development can be applied to your work as teacher later on.

INTRODUCTION

Individuals, when confronted by situations where they need to make moral decisions, exercise their own ability to use moral reasoning. Lawrence Kohlberg was interested in studying the development of moral reasoning. He based his theory on the findings of Piaget in studying cognitive development. Our ability to choose right from wrong is tied with our ability to understand and reason logically.

DEFINITION


Kohlberg's Theory of Moral Development	
LEVEL AND STAGE	DESCRIPTION
Level I: Pre-Conventional	Authority figures are obeyed
	Misbehavior is viewed in term of damage done
Stage 1: Punishment and Obedience Orientation	A deed is perceived as “wrong” if one is punished; the activity is right if one is not punished.
Stage 2: Instrumental-Relativist Orientation	“Right” is defined as that which is acceptable to and approved by the self. When actions satisfy one’s needs, they are “right”

*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials.

LEVEL AND STAGE	DESCRIPTION
Level II: Conventional	Cordial interpersonal relationships are maintained
Stage 3: Interpersonal Concordance / Social Approval	One is motivated by what others expects in behavior – good boy/ good girl. The person acts because he/she values how he/she gives importance on what people will think or say.
Stage 4: Law and Order Orientation	One is motivated to act in order to uphold law and order. The person will follow the law because the law.

*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials.

LEVEL AND STAGE	DESCRIPTION
Level III: Post Conventional	Individual understands the morality of having democratically established laws.
Stage 5: Social Contract Orientation	Laws that are wrong can be changed. One will act based on social justice and the common good.
Stage 6: Universal Principles	This is associated with the development of conscience. Having a set of standards that drives one to Possess moral responsibility to make societal changes regardless of consequences to oneself.



*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials.

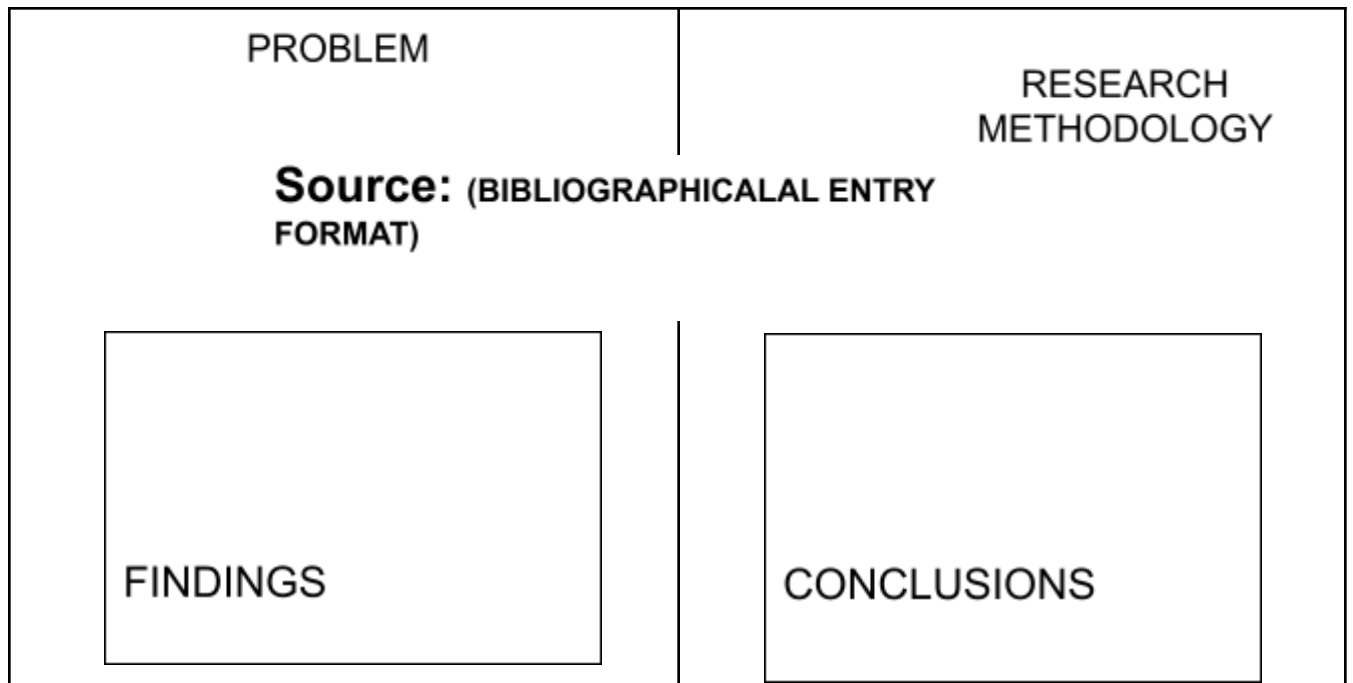
Stages of Moral Development Lawrence Kohlberg			
Level	Stage	Ages	Social Orientation
Pre-Conventional	1	2-4	Obedience and Punishment
	2	4-7	Individualism, Instrumentalism
Conventional	3	7-10	Good Boy/Girl
	4	10-12	Law and Order
Post-Conventional	5	Teens	Social Contract
	6	Adult	Principled Conscience

*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials.

APPLICATION

RESEARCH CONNECTION

Read a research that is related to KOHLBERG Theory. Fill out the matrix below.



REFLECTION:

From this module of Kohlberg's Stages of Moral Development, I learned...

Module 9 VYGOTSKY'S SOCIO-CULTURAL THEORY

-Maria Rita D. Lucas, Ph.D.

"What a child can do in cooperation today, tomorrow she/he will be able to do alone."

-Lev Vygotsky

CHALLENGE

In this Module, the students are expected to:

- Explain why Vygotsky's theory is called "Socio-cultural" theory
- Differentiate Piaget and Vygotsky's views on cognitive development
- Explain how scaffolding is useful in teaching a skill.

INTRODUCTION



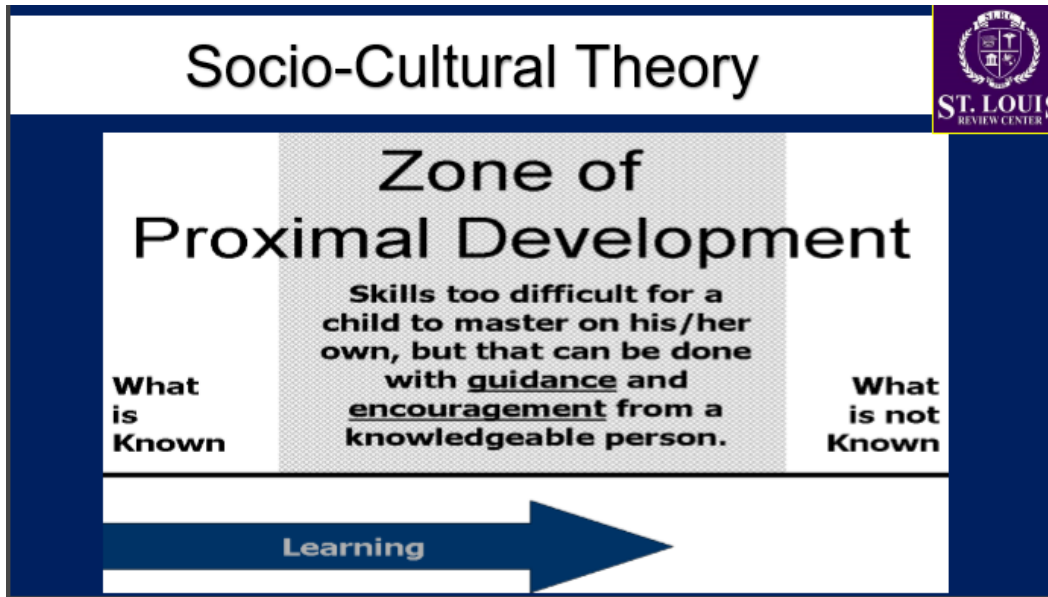
The key theme of Vygotsky's theory is that social interaction plays a very important role in cognitive development. He believed that individual development could not be understood without looking into the social and cultural context within which development happens. Scaffolding is Vygotsky's term for the appropriate assistance given by the teacher to assist the learner accomplishes a task.

Agreed that children are active learners, but their knowledge is socially constructed.

- Cultural values and customs dictate what is important to learn.

- Children learn from more expert members of the society.
- Vygotsky described the “zone of proximal development”, where learning occurs.

DEFINITION



*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials.

VYGOTSKY’S SOCIO-CULTURAL THEORY

Importance of **CULTURE**- humans use of tools and symbols to learn
 –dictates what we learn and how
 - the values, beliefs, customs and skills of a social group.

SOCIAL-INTERACTION – cooperative dialogues with more knowledgeable members of the society is necessary for children to acquire the ways of thinking and behaving that make up communities culture.

CENTRAL ROLE OF LANGUAGE:

Language- is made possible because of our culture (tools and symbols). The learning of language (or signs) is brought about by social-processes, and language or signs ultimately make thought possible

APPLICATION

RESEARCH CONNECTION

Read a research that is related to VYGOTSKY’S Theory. Fill out the matrix below.

FINDINGS

PROBLEM	RESEARCH METHODOLOGY
<p>Source: (BIBLIOGRAPHICAL ENTRY FORMAT)</p>	

REFLECTION

From the Module on Vygotsky’s Socio-Cultural Theory, I learned that...

Module 10 BRONFENBRENNER’S ECOLOGICAL THEORY

-Maria Rita D. Lucas, Ph.D.

“Children need people in order to become human.”

-Urie Bronfenbrenner

CHALLENGE

- In this Module, the students are expected to:
- Describe each of the layers of Bronfenbrenner’s Bioecological Model
- Identify factors in one’s own life that exerted influence on one’s development.
- Use the bioecological theory as a framework to describe the factors that affect a child and adolescent development

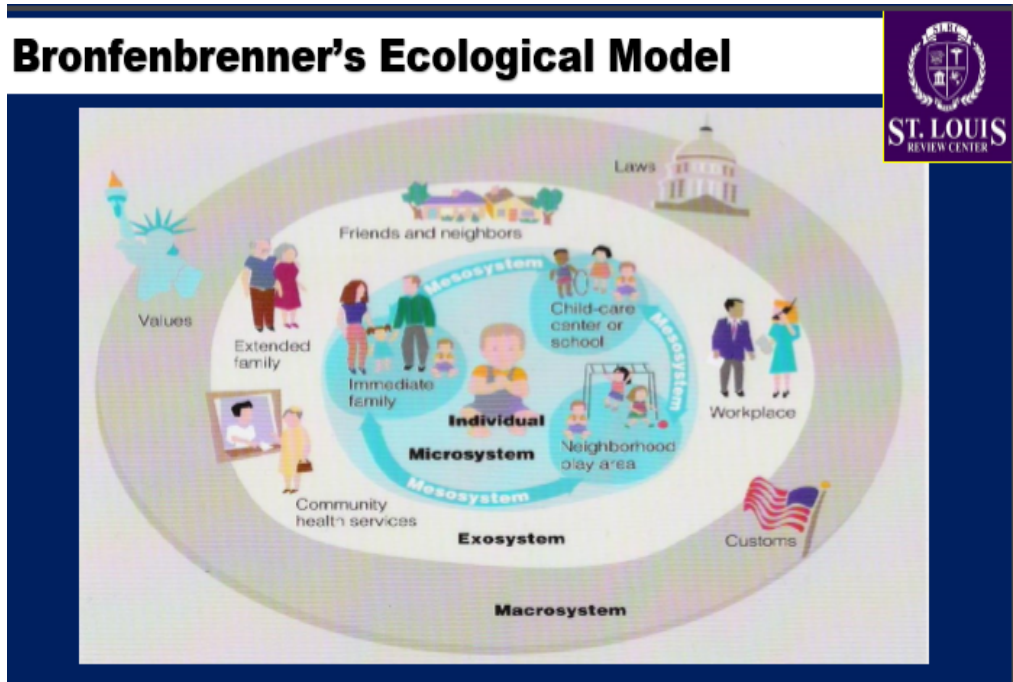
INTRODUCTION

Bronfenbrenner came up with a simple yet useful paradigm showing the different factors that exert influence on an individual’s development. It points out the ever widening spheres of influence that shape every individual, from his/her immediate family to the neighborhood, the country, even the world!

DEFINITION

ECOLOGICAL SYSTEMS THEORY

- The varied systems of the environment and the interrelationships among the systems shape a child's development.
- Both the environment and biology influence the child's development.
- The environment affects the child and the child influences the environment.



*Courtesy to: Erson B. Dagdag/ St. Louis Review Center prepared materials.

- **THE MICROSYSTEM**- activities and interactions in the child's immediate surroundings: parents, school, friends, etc.
- **THE MESOSYSTEM**- relationships among the entities involved in the child's microsystem: parents' interactions with teachers, a school's interactions with the day care provider
- **THE EXOSYSTEM**- social institutions which affect children indirectly: the parents work settings and policies, extended family networks, mass media, community resources
- **THE MACROSYSTEM**- broader cultural values, laws and governmental resources
- **THE CHRONOSYSTEM**- covers the element of time as it relates to a child's environments.
 - Changes which occur during a child's life, both personally, like the birth of a sibling

“
One child, one teacher,

APPLICATION

RESEARCH CONNECTION

Read a research that is related to BRONFENBRENNER'S Theory. Fill out the matrix below.

PROBLEM	RESEARCH METHODOLOGY
Source: (BIBLIOGRAPHICAL ENTRY FORMAT)	
FINDINGS	CONCLUSIONS

REFLECTION

From the Module on Bronfenbrenner's Ecological Theory, I learned that...

PART II- Development of the Learners at Various Stages

Unit 1 Pre-natal Period

Module 11 Pre-natal Development

-Brenda B. Corpuz, Ph.D.

“The history of man for nine months preceding his birth would, probably, be far more interesting, and contain events of greater moment than all three scores and ten years that follow it.”

*-Samuel Taylor Coleridge
English Poet, Essayist, 19th Century*

CHALLENGE

At the end of this Module, the students are expected to:

Trace the course of the pre-natal development process that you went through

Explain the most common hazards to pre-natal development

Become more appreciative of the gift of life manifested in an anti-abortion stand.

INTRODUCTION

All the developmental theories which we lengthily discussed dwelt on the developmental process after birth. None of them was concerned with what development went on before birth. To make the description of human development complete. It may be good to understand the beginnings of the child and the adolescent.

DEFINITION

HUMAN LIFE BEGINS AT CONCEPTION

-That which is in the mother's womb is indeed a developing human being. An unborn baby of eight (8) weeks is not essentially different from one of eighteen (18) weeks or twenty-eight (28) weeks. From conception the zygote, the embryo and the fetus are undeniably human life.

-Human life begins from the moment of conception. All that we have and all that we are have been there at the moment of conception! The facts that you will turn bald at age 50 have been there already at the moment of conception. What was added in the process of development is nutrition.

-I remember the film on abortion that I once saw, “The Silent Scream (<http://www.mccl.org/>). The mother submitted herself to a medical doctor for abortion in her third month of pregnancy. When the abortionist inserted his scalpel into the woman's womb to crush the head of the fetus, very clearly in that film, the fetus had his/her mouth open like he was screaming for help as he evaded the deadly scalpel of the abortionist. That's why the film was given the title “**The Silent Scream**”. This only means that the developing being in the womb is a human being not just a conglomeration of cells or tissues.

-Based on these facts, it is wrong to do abortion. The womb is supposed to be the safest of all places for human development. Unfortunately, however, with the scourge of abortion, it has become a tomb!

-The development that takes place in 3 stages proves that the developing embryo in a mother's womb is truly a human being.

THE STAGES OF PRE-NATAL DEVELOPMENT

It may be good to watch the video on High Tech Photographs of Fetal Development / Pro-Life Anti-Abortion Video at YouTube before you read these notes on stage of pre-natal development. (see video <https://www.youtube.com/watch?v=WtDknjng8TA>)

Pre-natal development is divided into three (3) periods; germinal, embryonic, and fetal.

1. **GERMINAL PERIOD-** (First 2 weeks after conception)- this includes; a) creation of the zygote, b) continued cell division and c) and the attachment of the zygote to the uterine wall.
In the germinal period, the differentiation of cells already begins as inner and outer layers of the organism are formed. The **blastocyst**, the inner layer of cells that develops during the germinal period, develops later into the embryo. The **trophoblast**, the outer layer of cells that develops also during the germinal period, later provides nutrition and support for the embryo (Nelson, Textbook of Pediatrics, 17th ed., 2004)
2. **EBRYONIC PERIOD-** (2-8 weeks after conception)- In this stage, the name of the mass cells, **zygote**, become embryo. The ff. developments take place:
 - a) Cell differentiation intensifies
 - b) Life-support systems for the embryo develop and
 - c) Organs appear

As the zygote gets attached to the wall of the uterus, two layers of cells are formed. The embryo's **endoderm**, the inner layer of cells, develops into the digestive and respiratory systems. The outer layer of cells is divided into two parts- the **ectoderm** and the **mesoderm**. The ectoderm is the outermost layer which becomes the nervous system, sensory receptors (eyes, ears, nose) and skin parts (nails, hair) the **mesoderm** is the middle layer which becomes the circulatory, skeletal, muscular, excretory and reproductive systems. This process of organ formation during the first two months of pre-natal development is called **organogenesis**.

THREE LAYERS OF THE EMBRYO:

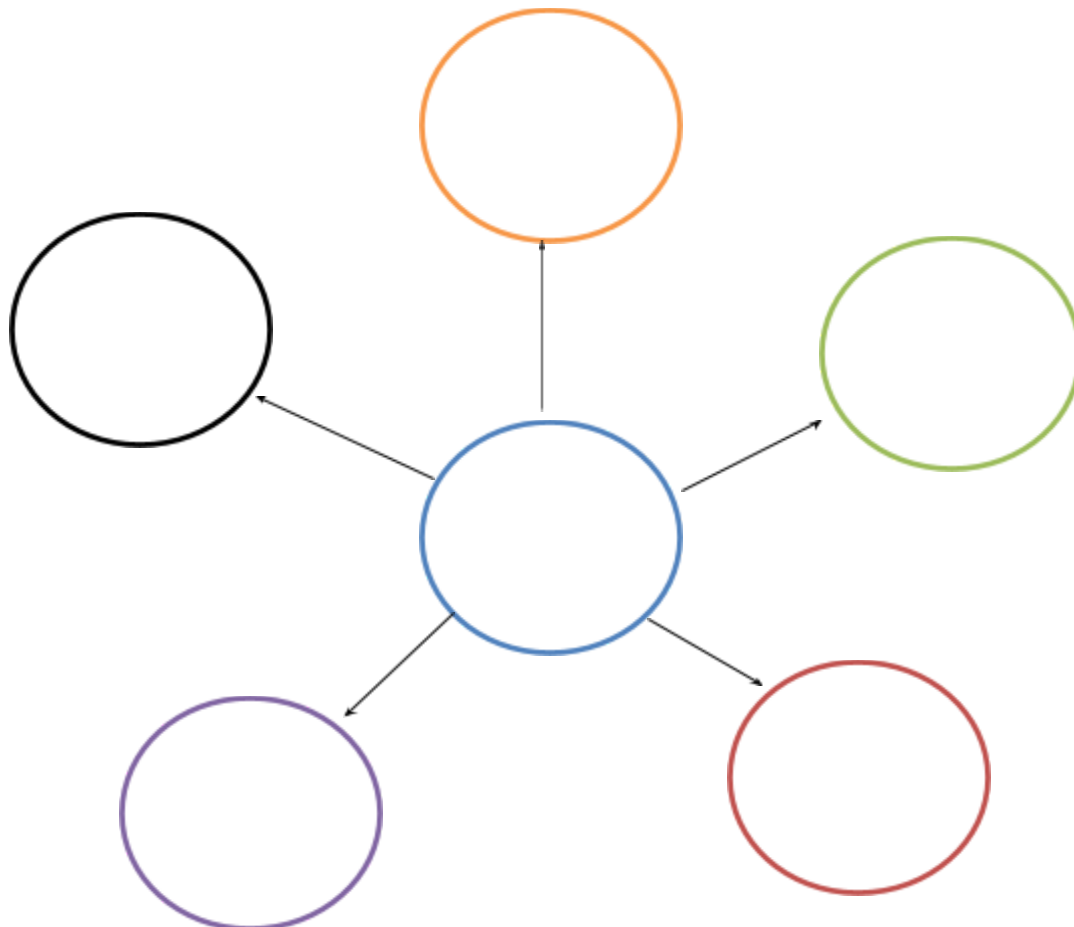
- **PLACENTA-** is a life-support system that consists of a disk-shaped group of tissues in which small blood vessels from the mother and the offspring intertwine but do not join.
 - **UMBILICAL CORD-** contains two arteries and one vein that connect the baby to the placenta.
 - **AMNION-** is a bag or an envelope that contains a clear fluid in which the developing embryo floats.
3. **FETAL PERIOD-** (2 months to 7 months after conception)- growth and development continue dramatically during this period. The details of the developmental process are as follows (Santrock, 2002):
 - a) 3 months after conception- fetus is about 3 inches long and weighs about 1 ounce; fetus has become active, moves its arms and legs, opens and closes its mouth, and moves its head; the face, forehead, eyelids, nose, chin can now be distinguished and also the upper arms, lower arms, hands, and lower limbs; the genitals can now be identified as male or female.
 - b) 4 months after conception- fetus is about 6 inches long and weighs 4-7 ounces; growth spurt occurs in the body's lower parts; pre-natal reflexes are stronger; mother feels arm and leg movements for the first time.

- c) 5 months after conception- fetus is about 12 inches long; weighs close to a pound; structures of the skin (fingernails, toenails) have formed; fetus is more active.
- d) 6 months after conception- fetus is about 14 inches long and weighs one and half pound; eyes and eyelids are completely formed; fine layer of head covers the head; grasping reflex is present and irregular movements occur.
- e) 7 months after conception- fetus is about 16 inches long and weighs 3 pounds.
- f) 8 and 9 months after conception- fetus grows longer and gains substantial weight, about 4 pounds.

APPLICATION

1. Pretend you are “JUNIOR”, 4 months old in the womb. Your mother is concentrating on doing abortion. Write her a letter convincing her that you are a human being developing contrary to what she and other pro-abortionists are thinking. Describe to her the development that has taken place in 4 months. Reflect what you learned on pre-natal development in this Module.
2. Here are the 3 stages of pre-natal development. Label them.

3. Give some hazards of pre-natal development. Use the given graphic organizer.



REFLECTION

Look at yourself. You are perfectly made. The cells of your lips are at your lips; your mouth is close to your nose. You can breathe normally. Did it ever occur to you that it could have been otherwise? Write down your reflections here.

Unit 2 Infancy and Toddlerhood

Module 12 Physical Development of Infants and Toddlers

-Brenda B. Corpuz, Ph.D.

“A baby is God’s opinion that life should go on.”

*-Carl Sandburg,
American Historian, Poet & Novelist*

CHALLENGE

At the end of this Module, the students are expected to:

Trace the physical development that you have gone through infants and toddlers.

Draw implications of these principles and processes to parenting and caregiving.

INTRODUCTION

We have just traced the developmental process before birth. We shall continue to trace the developmental process by following the infant or the baby who is just born up to when he reaches age 2. The period that comes after pre-natal or antenatal stage is infancy which, in turn, is followed by toddlerhood. Infancy and toddlerhood span the first two years of life.

DEFINITION

PHYSICAL AND MOTOR DEVELOPMENT

A. Physical and Motor development

Infants need to learn how to move and to use their bodies to perform various tasks, a process better known as motor development. Initially, babies’ movements are simply the uncontrolled, reflexive movements they are born with, over time, they learn to move their body parts voluntarily to perform both gross (large) and fine (small) motor skills. In general, babies begin developing motor skills from head to tail (cephalocaudal), the center of the body outward (proximodistal). They learn to control their head and neck before they learn to maneuver their arms; they learn to maneuver their arms before they learn to manipulate their fingers. Babies learn to move their torso before they learn how to move their arms and legs.

The sucking reflex allows babies to drink milk and nourish themselves in the days of life.

Another permanent and life-supporting reflex is heard turning in the first days of life.

Another permanent life-supporting reflex is head turning. This reflex allows a baby to turn his head if something (a blanket, pillow, or stuffed animal) is blocking his airflow.

Another reflex that also babies survive is the rooting reflex. When babies root, they may nuzzle their face and mouth into the caregiver's chest or shoulder.

The rest of the reflexes have less survival value but are still notable. For the first 3 to 4 months, babies have an amazing grasping ability and reflex. They will grasp anything placed in their palm and hold it with amazing strength for their size. Some infants in the first weeks of life can support their entire body weight through that grasp.

While this reflex may not have any survival function in modern times, it does help babies bond with caregivers and family in the first weeks of life. Similarly, for the first two months, babies will 'step' with their legs if they are held vertically with their feet touching a surface. Even though this reflex disappears months before babies begin walking purposely, experts believe stepping helps infants learn how their legs work can be used.

The Moro response is another reflex that is present during the first 6 months of life, but doesn't seem to have a purpose in modern life. A baby will arch her back, flail out, and then curl up if she feels as though she is being dropped.

The final reflex is Tonic Neck. During the first 4 months, when babies lie awake on their backs with their heads facing to one side, they will extend the arm on the side of their body that they're facing and reflex the other arm at an angle, in a position that resembles fencing pose. This reflex may help prepare them for voluntary reaching later in their environment.

Between ages 2 and 3 years, young children stop "toddling", or using the awkward, wide-legged robot-like stance that is the hallmark of new walkers. As they develop a smoother gait, they also develop the ability to run, and hop. Children of this age can participate in throwing and catching games with larger balls. They can also push themselves around with their feet while sitting on a riding toy.

Children who are 3 to 4 years old can climb up stairs using a method of bringing both feet together on each step before proceeding to the next step (in contrast, adults place one foot on each step in sequence); However, young children may still need some "back up" assistance to prevent falls in case they become unsteady in this new skill. Children of this age will also be stumped when it's time to go back down the stairs; they tend to turn around and scoot down the stairs backwards. 3 to 4 years old can jump and hop higher as higher as their leg muscles grow stronger? Many can even hop on one foot for short periods of time.

By ages 4 to 5, children can go up and down the stairs alone in the adult fashion (i.e. taking one step at a time); their running continues to smooth out and increase in speed. Children of this age can also skip and add spin to their throws. They also have more control when riding their tricycles (or bicycles), and can be driven faster.

During ages 5 to 6, young children continue to refine easier skills. They're running even faster and can start to ride bicycles with training wheels for added stability. In addition, they can step sideways. Children

of this age begin mastering new forms of physical play such as the jungle gym, and begin to use the see-saw, slide, and swing on their own. They often start jumping rope, skating, hitting balls with bats, and so on. Many children of this age enjoy learning to play organized sports as soccer, basketball, t-bale or swimming. In addition, 5 to 6 years old often like to participate in physical extracurricular activities such as karate, gymnastics, or dance. Children continue to refine and improve their gross motor skills through age 7 and beyond.

REFLECTION

1. Having learned the physical development of infants and toddlers, as a future parent or as caregiver of children of children, reflect on:
 - **What you should do more often for infants and toddlers.**
 - **What you should refrain from doing to facilitate their growth and development.**
2. Reflect on the quotation above the title of this Module.

Module 13 COGNITIVE DEVELOPMENT OF INFANTS AND TODDLERS

-Brenda B. Corpuz, Ph.D.

“Keep me away from the wisdom which does not cry, the philosophy which does not laugh and the greatness which does not bow before children.”

-Kahlil Gibran

CHALLENGE

At the end of this Module, the students are expected to:

Trace your own cognitive development as infants and toddlers

Draw implications of cognitive development concepts to parenting

INTRODUCTION

Cognitive development in infancy refers to development in the way a baby thinks. This includes his/her language, communication and exploration skills. Example of cognitive activities includes paying attention, remembering learning to talk, interacting with toys and identifying faces.

DEFINITION

BRAIN DEVELOPMENT

- ❖ The brain's ability to change from experience is known as Plasticity. The human brain is especially plastic early in life, which is why the “nurture” part of the equation is so important. Throughout life the brain continues to be plastic-this is the mechanism of learning-but plasticity declines in adulthood. As a child's brain develops, it goes through several critical periods, a developmental phase in which the brain requires certain environmental input or it will not develop normally.

Early Milestones in Brain Growth

- ❖ **4 months:** the infant's brain responds to every sound produced in all the languages of the world.
- ❖ **8 to 9 months:** Babies can form specific memories from their experiences, such as how to push a ball to make it roll.
- ❖ **10 months:** Babies can now distinguish and even produce the sounds of their own language (such as "da-da") no longer pay attention to the sounds of language that are foreign.
- ❖ **12 months:** Babies whose parents say, for example "Look at the doggie" will go to the appropriate picture of a dog in a picture book more often than those babies who are talked to normal, flatter voices.
- ❖ **12 to 18 months:** Babies can keep in memory something that has been hidden and find it again, even if it has completely covered up. They can also hold memory sequences of simple activities, such as winding up a jack-in-the-box until the figure pops up.
- ❖ **24 months:** Preschool children now clear picture in mind of people who are dear to them, and they get upset when separated from these people (even their peers)
- ❖ **30 months:** Preschool children can hold in mind a whole sequence of spatial maps and know where things are in their environment.
- ❖ **36 months:** A preschool child can now hold two different emotions in his mind at the same time, such as being sad that he spilled ice cream on his clothes but glad that he's at birthday party.

B. Factors Affecting Development

Maternal Nutrition- the nutritional status of the women during adolescent pregnancy and lactation has a direct impact on the child's health and development.

Child Nutrition- the Child's state of nutritional balance is crucial in his early developmental age.

Early Sensory Stimulation- Toys, soothing sounds and other sensorial stimulation contribute to the child's development.

C. Exceptional Development

Physical Disabilities- Persons with physical disabilities may experience functional, visual, orthopedic, motor, or hearing impairments, which may impact upon their ability to walk, play and learn. Physical disabilities are also often defined and categorized by some degree of limitation in the use of upper or lower extremities and maintaining posture and positioning.

Attention Deficit Disorder (ADD) and Attention Deficit Hyperactive Disorder (ADHD)- Attention-Deficit Hyperactivity Disorder (ADHD) and Hyperkinetic Disorder (as officially known in U.K., through ADHD is more commonly used) is generally considered to be a developmental disorder, largely neurological in nature, affecting about 5% of the world's population. The disorder typically presents itself during childhood, and is characterized by a present pattern of inattention and/or hyperactivity, as well as forgetfulness,

poor impulse control or impulsivity and distractibility, ADHD is currently considered to be a persistent and chronic condition for which no medical cure is available. ADHD is most commonly diagnosed in children and, over the past decade.

D. Linguistic and Literary Development

A. Natural History and Language Development

Language development is a process that starts early in human life, when a person begins to acquire language by learning it as it is spoken and by mimicry. Children's language development moves from simplicity to complexity. Infants start without language. Yet by four months of age, babies can read lips and discriminate speech sounds.

- ❖ Usually, language starts off as recall of simple words without associated meaning, but as children age, words acquire meaning, and connections between words are formed, in time, sentences start to form as words are joined together to create logical meaning. As a person gets older, new meaning and new associations are created and vocabulary increases as more words are learned.
- ❖ Infant use their bodies, vocal cries and other preverbal vocalizations to communicate their wants, needs and dispositions. Even though most children begin to vocalize and eventually verbalize at various ages and at different rates, they learn their first language without conscious instruction from parents or caretakers. It is seemingly effortless task that grows increasingly difficult with age. Ofcourse, before any learning can begin, the child must be biologically and socially mature enough.

Biological Preconditions- Linguist do not all agree on what biological factors contribute to language development, how ever most do agree that our ability to acquire such a complicated system is specific to the human species, Furthermore, our ability to learn language may have been developed through the evolutionary process and that the foundation for language may be passed down genetically.

Second Preconditions- it is crucial that children are allowed to socially interact with other people who can vocalize and respond to questions. For language acquisition to develop successfully, children must be in an environment that allows them to communicate socially in that language.

There are a few different theories as to why and how children develop language. The most popular explanation is that language is acquired through imitation. However, this proves to be more of a folk tale than anything. Two most accepted theories in language development are psychological and functional. Psychological explanations focus on the mental processes involved in childhood language learning. Functional explanations look at the social process involved in learning the first language.

B. Bilingual Language Development

- ❖ There are two major patters in bilingual language acquisition; simultaneous Bilingualism and Sequential bilingualism. In simultaneous bilingualism, the child acquires two languages at the same time before the age of 3 years. These children may mix words or parts of words from both languages in the first stage. Stage 2 occurs at 4 years and older when distinction between the two languages takes place, and the child uses each language separately. Sequential bilingualism also occurs before the child is 3 years old, but the child can draw in on the knowledge and experience of first language while acquiring the second language.

- ❖ Detecting delays in the speech and language of multilingual children presents a challenge. The authors state that “the key is to obtain information about the child’s entire language system, not just the primary or secondary language”.
- ❖ The following “red flags” may indicate that the child who is simultaneously acquiring two languages is experiencing problems with language development.
 - ✓ No sounds by 2-6 months
 - ✓ Less than one new word per week for 6-15 month-old children.
 - ✓ Less than 20 words (in the two languages combined by 20 months: and
 - ✓ No use of word combinations and a very limited vocabulary by age 2-3 years
 - ✓ Red flags for abnormal language development in the sequential acquisition of two languages include.
 - ✓ Lack of normal milestones in the first language
 - ✓ Prolonged phase of not talking
 - ✓ Difficulty of retrieving words

Factors Affecting Language Development

1. Inadequate stimulation (talking and playing with the child)
2. Delayed general development (global developmental delay), physical development (motor skills), cognitive development etc.
3. Specific difficulty with language learning. Not very interested in language, prefers other modalities e.g. physical activities
4. Poor control and/or coordination of the speech muscles; lips, tongue etc.
5. Medical problems
6. Inadequate awareness of communication, lacks “communication intent”
7. Reduced hearing e.g. ear infection, fluid in ear, impacted earwax etc.
8. Changes in child’s environment e.g. moving
9. Exposure to too many languages for the child
10. Inadequate opportunity for speech e.g. the child everyone talks for, the “babied” child has a more dominant sibling etc.
11. Emotional factors e.g. behavioral problems, anxiety, pressure to perform etc.
12. Short attention span.
13. Family history of speech and language delays or difficulties

C. Exceptional Development

Aphasia- Aphasia (or aphasia) is a loss of the ability to produce and/or comprehend language due to injury to brain areas specialized for these functions. It is not a result of deficits in sensory, intellect, or psychiatric functioning. Depending on the area and extent of the damage, someone suffering from aphasia may be able to speak but not write, or vice versa, or display any of a wide variety of other deficiencies in language comprehension and production, such as being able to sing but not to speak.

Dyslexia- Dyslexia is a specific learning disability that manifests primarily as a difficulty with written language, particularly with reading and spelling. Dyslexia is the result of neurological differences but is not an intellectual disability. Most people with dyslexia have average or above average intelligence.

Evidence suggests that dyslexia results from differences in how the brain processes written and/or verbal language. It is separate and distinct from reading difficulties

resulting from other causes, such as deficiencies in intelligence, a non-neurological deficiency with vision or hearing, or from poor or inadequate reading instruction.

REFLECTION

1. Go back to the quotation from Kahlil Gibran beneath the title of this Module. Reflect on it.
2. What struck you most in the cognitive development of infants and toddlers? Remember cognitive development includes development of memory and acquisition of language. Write your reflections here.

Module 14 SOCIO-EMOTIONAL DEVELOPMENT INFANTS AND TODDLERS

-Brenda B. Corpuz, Ph.D.

“When you’re drawing up your list of life’s miracles, you might place near the top the first moment your baby smiles at you... Today, she looked right at me. And she smiled... Her toothless mouth opened, and she scrunched her face up and it really was a grin... The sleepless nights, the worries, the crying-all of a sudden it was all worth it... She is no longer just something we are nursing and carrying along-somewhere inside, part of her knows what’s going on, and that part of her is telling us that she’s with us.”

-Bob Greene

CHALLENGE

At the end of this Module, the students are expected to:

Describe the socio-emotional development processes that you went through as an infant and toddler.

State the implications of research findings on infants’ and toddlers’ socio-emotional development to parenting and child care.

INTRODUCTION

Simply put, socio-emotional development has something to do with the development of a person’s ability to master one’s emotions and the ability to relate to others. It necessarily includes temperament, attachments and social skills.

DEFINITION

SOCIAL AND EMOTIONAL DEVELOPMENT

THEORIES OF SOCIO-EMOTIONAL DEVELOPMENT

Erik Homburger Erikson (1902-1994) was a German developmental psychologist and psychoanalyst known for his theory on social development of human beings, and for coining the phrase identity crisis.

- ❖ Each of Erikson’s stages of psychosocial development are marked by a conflict, for which successful resolution will result in a favorable outcome, for example, trust vs. mistrust, and by an important event that is conflict resolves itself around, for example, meaning of one’s life.
- ❖ Favorable outcomes of each stage are sometimes known as “virtues”, a term used, in the context of Erikson work, as it is applied to medicines, meaning “potencies” For example, the virtue that would emerge from

successful resolution. Oddly, and certainly counter-intuitively, Erikson's research reveals with breath-taking clarity how each individual must learn how to hold both extremes of each specific life-stage challenge in tension with one another not rejecting one end of the tension or the other.

- ❖ Only when both extremes in a life-stage challenge are understood and accepted as both required and useful, can the optimal virtue for that stage surface. Thus, "trust" and "mistrust" must both be understood and accepted, in order for realistic "hope" to emerge as a viable solution at the first stage. Similarly, "integrity" and "despair" must both be understood and embraced, in order for actionable wisdom to emerge as a viable solution at the last stage.
- ❖ Bandura bases his theory on the acquisition of complex behaviors on a triangular diagram illustrating the interactive effect of various factors. These three factors are behavior (B), the environment (E), and the internal events that influence perceptions and actions. (P). the relationship between these three factors is known as reciprocal determinism.
- ❖ Bandura identified three types of reinforcers of behavior. These were direct reinforcement, vicarious reinforcement and self-reinforcement. Direct reinforcement would be directly experienced by the learner. Vicarious reinforcement would be observed to be consequences of the behavior of the model. Self-reinforcement would be feelings of satisfaction or displeasure for behavior gauged by personal performance standards.
- ❖ Bandura describes three types of modeling stimuli, which are live models, symbolic models, and verbal descriptions or instructions. Of these three, in American society, the greatest range of exposure is in the form of symbolic models through mass media.
- ❖ In Bandura's later work he introduces two other aspects to his Social Learning Theory. These are his work on the self-regulatory system and self-efficacy. In the area of self-regulatory system/ self-evaluative behaviors he said that this system is based upon cognitive subprocesses that:
 - Perceive
 - Evaluate
 - Regulate behavior

Social Cognitive Theory- Utilized both in Psychology and Communications posits that portions of an individual's knowledge acquisition can be directly related to observing others within the context of social interactions, experiences, and outside media influences

An important point in the social cognitive theory is that the learner's behavior is guided by cognitive processes rather than formed or shaped by reinforced practice. Four component parts are responsible for the learning and performance acquisition. These are:

1. Attentional processes
 - ❖ Observer characteristics
 - perceptual/cognitive capacities
 - arousal level
 - past performance
 - ❖ Event characteristics
 - relevance

- affective valence
- complexity
- functional value
- model's characteristics
- Intrinsic rewards

2. Retentional processes

- ❖ Observer characteristics
 - cognitive skills
- ❖ Event characteristics
 - cognitive organization
 - cognitive rehearsal

3. Motor reproduction process

- ❖ Observer characteristics
 - physical capabilities
 - subskill mastery
- ❖ Event characteristics
 - selection & organization of responses
 - feedback

4. Motivational processes

- ❖ Observer characteristics
 - incentive preference
 - social bias
 - internal standards
- ❖ Event characteristics
 - external reinforcement
 - self- reinforcement
 - vivacious reinforcement

Emotional Intelligence- (EI), often measured as an Emotional Intelligence Quotient (EQ), describes an ability, capacity, or skill to perceive, assess, and manage the emotions of one's self, of others, and of groups. As relatively new area of psychological research, the definition of EI is constantly changing.

The Emotional Competencies (Goleman) model

The EI model introduced by Daniel Goleman focuses in EI as wide array of competencies and skills that drive managerial performance, measured by multi-rater assessment and self-assessment (Bradberry and Greaves, 2005). In working with Emotional Intelligence (1998) Goleman explored the function of EI on the job, and claimed EI to be the largest single predictor of success in the workplace, with more recent confirmation of these findings on a worldwide sample seen in Bradberry and Greaves, "The Emotional Intelligence Quick Book" (200%)

Goleman's model outlines four main EI constructs:

Self-awareness- the ability to read one's emotions and recognize their impact while using gut feelings to guide decisions

Self- management- involves controlling one's emotions and impulses and adapting to changing circumstances.

Social awareness- the ability to sense, understands, and reacts to other's emotions while comprehending social networks.

Relationships management- the ability to inspire, influence, and develop others while managing conflict.

Goleman includes a set of emotional competencies within each construct of EI. Emotional competencies are not innate talents, but rather learned capabilities that must be worked on and developed to achieve outstanding performance. Goleman posits that individuals are born with a general emotional intelligence that determines their potential for learning emotional competencies.

APPLICATION

1. "The hand that rocks the cradle rocks the world." How does this relate to an infant's and toddler's development?
2. Compose your own version of Nolte's "Children Learn What They Live". Rap it or sing it."

REFLECTION

1. Based on stories you heard for your parents and grandparents about your first three years in the world, reflect on the kind of home environment you have had as an infant and as a child? How has it affected you?

Unit 3 Early Childhood

Module 15 PRESCHOOLERS' PHYSICAL DEVELOPMENT

-Maria Rita D. Lucas, Ph.D.

"A child reminds us that playtime is an essential part of our daily routine."

-Anonymous,

CHALLENGE

At the end of this Module, the students are expected to:
Describe preschool children's physical growth
Identify the different gross and fine motor skills
Draw implications of these concepts on physical development on teaching preschoolers

INTRODUCTION

The preschooler years is commonly known as "the years before formal schooling begins." It roughly covers 3-5 years of age. Although it is known as the years before formal school, it is by no way less important than the grade school years.

DEFINITION

Significant Changes in Physical Growth

-Physical growth increases in the preschool years, although it is much slower in pace than in infancy and toddlerhood. At around 3 years of age, preschoolers move, from remaining baby-like features of the toddler, toward a more slender appearance of a child. The trunk, arms, and legs become longer.

Gross and Fine Motor Development

Gross motor- development refers to acquiring skills that involve the large muscles.

GROSS MOTOR CATEGORIZED INTO THREE:

LOCOMOTOR SKILLS- are those that involve going from one place to another, like walking, running, climbing and etc.

NON-LOCOMOTOR SKILLS- ones are those where the child stay in place, like bending, stretching, turning and swaying.

MANIPULATIVE SKILLS- are those that involve projecting and receiving objects, like throwing, striking, bouncing, catching and dribbling.

Fine Motor Development- refers to acquiring the ability to use the smaller muscles in the arm, hands and fingers purposefully. Some of the skills included here are picking, squeezing, pounding, and opening things, holding and using a writing implement.

APPLICATION

1. Make your own photo essay about the physical development of preschoolers. Observe preschoolers in action and take their pictures. Describe the gross and fine motor skills that you saw them do.

REFLECTION

From this Module on the Physical Development of Preschoolers, I learned that... Explain why?

Module 16 COGNITIVE DEVELOPMENT OF PRESCHOOLERS

-Maria Rita D. Lucas, Ph.D.

-Brenda B. Corpuz, Ph.D.

“There are children playing in the street who could solve some of my top problems in physics, because they have modes of sensory perception that I lost long ago.”

-J. Robert Oppenheimer

CHALLENGE

At the end of this Module, the students are expected to:

Describe the cognitive development that takes place among preschoolers

Apply concepts on preschoolers' cognitive development in pre-school teaching and in child care

Take an informed stand/ position on current preschool teaching practices

INTRODUCTION

Someone once wrote in his journal: “Childhood is a world of miracle and wonder; as if creation rose, bathed in light, out of darkness, utterly new, fresh and astonishing. The end of childhood is when things cease to astonish us. When the world seems familiar, when one has got used to existence, one has become an adult.”

Early childhood (preschool age) is just one stage of childhood. Do you remember how you were as a preschooler? What do you remember most as a preschooler? What did you enjoy doing?

DEFINITION

PRESCHOOLERS' SYMBOLIC AND INTUITIVE THINKING

SYMBOLIC STAGE- preschool children show progress in their cognitive abilities by being able to draw objects that are not present, by their dramatic increase in their language and make-believe play.

INTUITIVE SUBSTAGE- preschool children begin to use primitive reasoning and ask a litany of questions. The development in their language ability facilitates their endless asking of questions. While preschool children exhibit considerable cognitive development, their improved cognitive processes still show some aspects of immaturity or limitations.

COGNITIVE DEVELOPMENT

Theories of Cognitive Development

Jean Piaget-Swiss psychologist (1896-1980). His theory provided many central concepts in the field of developmental psychology and concerned the growth of the intelligence, which for Piaget, meant the ability to more accurately represent the world and perform logical operations on representations of the concepts grounded in the world. The theory concerns the emergence and acquisitions of the schemata-schemes, of one perceives the world-in”developmental stages”, time when children are acquiring new ways of mentally representing-information.

1. Sensorimotor period (years 0-2)

Infants are born with a set of congenital reflexes, according to Piaget, in addition to explore their world. Their initial schemas are formed through differentiation of the congenital reflexes:

- ❖ **The first sub-stage**, known as the reflex schema stage, occurs from birth to six weeks and is associated primarily with the developmental reflexes. Three primary reflexes are described by Piaget: sucking of objects in the mouth following moving or interesting objects with the eyes, and closing of the hand when an object makes contact with the palm (palmar grasp). Over this first six weeks of life, these reflexes begin to become voluntary actions; for example, the palmar reflex becomes intentional grasping.
- ❖ **The second sub-stage**, primary circular reaction phase, occurs from six weeks to four months and is associated primarily with the development of habits. Primary circular reactions or repeating of an action involving only one's body begins. An example of this type of reaction would involve something like an infant repeating the

motion of passing their hands before their face. The schema developed during this stage inform the infant about the relationships among his body parts (e.g. in passing the hand in front of his eyes he develop a motor schema for moving his arm so that the hand becomes visible).

- ❖ **The third sub-stage**, the secondary circular reactions phase, occurs from four to nine months and is associated primarily with the development of coordination between vision and apprehension. Three new abilities occur at this stage: intentional grasping for a desired object, secondary circular reactions, and differentiations between ends and means. At this stage, infants will intentionally grasp the air in the direction of a desired object, often to the amusement of friends, family, younger and older siblings, grandparents, etc. Secondary circular reactions, or the repetition of an action involving an external object begin; for example, moving a switch to turn on a light repeatedly. The differentiation between means also occurs. This is perhaps one of the most important stages of a child's growth as it signifies the dawn for logic. However, babies still only have a very early rudimentary grasp of this and most of their discoveries have an "accidental" quality to them in that the initial performance of what will soon become a secondary circular reaction occurs by chance; but the operant conditioning causes the initial "accidental" behavior (which was followed by an "interesting pattern of stimulation") to be repeated. And the ability to repeat the act is the result of primary circular reactions established in the previous stage. For example, when the infant's hand accidentally makes contact with an object in his field of vision is based on the primary circular reaction bringing his hand into his field of vision. Thus, the child learns (at the level of schemata) that "if he can see it then he can also touch it" and this results in a schemata which is the knowledge that the external environment is populated with solid objects.
- ❖ **The fourth sub-stage**, called the coordination of secondary circular reactions stage, which occurs from nine to twelve months, is when Piaget thought that object permanence developed. In addition, the stage is called the coordination of secondary circular reactions stage, and is primarily with the development of logic and the coordination between means and ends, this is extremely important marks the beginning of goal orientation or intentionally, the deliberate planning of steps to meet an objective.
- ❖ **The fifth sub-stage**, tertiary circular reactions phase, occurs from twelve to eighteen months and is associated primarily with the discovery of new means to meet goals. Piaget describes the child at this juncture as the "young scientist", conducting pseudo-experiments to discover new methods of meeting challenges.
- ❖ **The six sub-stage**, considered "beginning of symbolic representation", is associated primarily with the beginnings of

insight, or true creativity. In this stage the trial- and error application of schemata, which was observable during the previous stage, occurs internally (at the level of schemata rather than of motor responses), resulting in the sudden appearance of new effective behaviors (without any observable trial-and-error). This is also the time when symbols (words and images) begin to stand for other objects. This marks the passage into the preoperational stage.

2. Preoperational period (years 2-7)

The Preoperational stage is the second of four stages of cognitive development. By observing a sequence of play, Piaget was able to demonstrate that towards the end of the second year a qualitatively new kind of psychological functioning occurs (Pre) Operatory Thought in Piagetian theory is any procedure for mentally acting on objects. The hallmark of the preoperational stage is sparse and logically inadequate mental operations.

According to Piaget, the Pre Operational stage of development follows the Sensorimotor stage and occurs between 2-7 years of age. It includes the following processes.

1. **Symbolic functioning**- characterized by the use of mental symbols, words, or pictures, which the child uses to represent something which is not physically present
2. **Centration**-characterized by a child focusing or attending to only one aspect of a stimulus or situation. For example, in pouring a quantity of liquid from a narrow beaker into a shallow dish, a preschool child might judge the quantity of liquid to have decreased, because it is "lower"- that is, the child attends to the height of the water, but not the compensating increase in the diameter of the container.
3. **Intuitive thought**- occurs when the child is able to believe in something without knowing why she or he believes it.
4. **Egocentrism**- a version of centration, this denotes a tendency of a child to only think for her or his own point of view. Also, the inability of a child to take the point of view of others. Example, if a child is in trouble, he or she might cover her eyes thinking if I cannot see myself my mom cannot either.
5. **Inability to Conserve**-though Piaget's conservation experiments (conservation of mass, volume and number after the original form has been changed. For example, a child in this phase will believe that a string which has up in "o-o-o-o" pattern will have a larger number of beads than a string which has a oooo: pattern, because the latter pattern has less space between Os; or that a tall, thin 8-ounce cup has more liquid in it than a wide, short 8-ounce cup.
6. **Animism**- The child believes that inanimate objects have "lifelike" qualities and are capable of action. Example, a child plays with a doll

and treats it like a real person. In a way this is like using their imagination.

3. Concrete operational period (years 7-11)

The Concrete operational stage is the third of four stages of cognitive development in Piaget's theory. This stage, which follows the Preoperational stage, occurs between the ages 7 and 11 years and is characterized by the appropriate use of logic. Important processes during this stage are:

- a. **Seriation**- the ability to arrange objects in an order according to size, shape, or any other characteristic. For example, if given different-shaded objects they may make a colour gradient.
- b. **Classification**-the ability to name and identify sets of objects according to appearance, size or other characteristic, including the idea that one set of objects can include another, a child is no longer subject to the illogical limitations of animasim (the belief that all objects are alive and therefore have feelings)
- c. **Decentering**- where the child takes into account multiple aspects of a problem to solve it. For example, the child will no longer perceive an exceptionally wide but short cup to contain less than a normally-wide, taller cup.
- d. **Reversibility**- where the child understands that numbers or objects can be changed, then returned to their original state. For this reason, a child will be able to rapidly determine that if $4 + 4$ equals 8, $8/4$ will equal 4, the original quantity
- e. **Conservation**- understanding that quantity, length or number of items is unrelated to the arrangement or appearance of the object or items. For instance, when a child is presented with two equally-sized, full cups they will be able to discern that if water is transferred to a pitcher it will conserve the quantity and be equal to the other filled up.
- f. **Elimination of Egocentrism**- the ability to view things from another's perspective (even if they think incorrectly). For instance, show a child a comic in whom Jane puts a doll under the box, leaves the room, and then Sarah moves the doll to a drawer, and Jane comes back. A child in the concrete operation stage will say that Jane will still think it's under the box even though the child knows it is in the drawer

4. Formal operation period (years 11-adulthood)

The formal operational period is the fourth and final of the periods of cognitive development in Piaget's theory. This stage, which follows the Concrete Operational stage, commences at around 11 years of age (puberty) and continues into adulthood. It is characterized by acquisition of the ability to think abstractly, reason logically and draw conclusions from the information available. During this stage the young adult is able to understand such things as love "shades of gray", logical proofs, and values,

Lev Vygotsky-Psychologist, was born in 1896 in Orsha, Belarys (then a part of the Russian Empire). Vygotsky was tutored privately by Solomom Asphiz and graduated from Moscow State University in 1917. Later, he attended the Institute of Psychology in Moscow (1924-34), where he worked extensively on ideas about cognitive development, particularly the relationship between language and thinking. His writings emphasized the roles of historical cultural, and social factors in cognition and argued that language was the most important symbolic tool provided by society.

Perhaps Vygotsky's most important contribution concerns the inter-relationship of language development and thought. This concept, explored in Vygotsky's book "Thinking and Speaking", establishes the explicit and profound connection between speech (both silent inner speech and oral language), and the development of mental concepts and cognitive awareness. It should be noted that Vygotsky described inner speech as being qualitatively different than normal (external) speech, For Vygotsky, social interaction is important for learning, e.i. children learn adults and other children

Information Processing Theory

There are three primary stages in IP Theory:

- ❖ **Encoding-** information is sensed, perceived, and attended.
- ❖ **Storage-** the information is stored for either a brief or extended period of time depending upon the processes following encoding
- ❖ **Retrieval-** The information is found at the appropriate time, and reactivated for use on a current task, the true test of effective memory.

The initial appeal of information processing theories was the idea that cognitive processes could be described in a stage-like model. The stages to processing follow a path along which information is taken into the memory system, and reactivated when necessary. Most theories of information processing center around three main stages in the memory process.

Sensory Register

The first step in the IP model, hold ALL sensory information for a VERY BRIEF time period.

- ❖ Capacity: we hold an enormous amount, more that we can ever perceive.
- ❖ Duration: Extremely brief- in order of 1 to 3 seconds

The Role of Attention

- ❖ To move information into consciousness, we need to attend to it. That is, we only have the ability to perceive and remember later those things that pass through the attention gate.

Short Term Memory (working Memory)

- ❖ Capacity: What you can say about in 2 seconds. Often said to be 7+/_2 items.
- ❖ Duration: Around 18 seconds or less
- ❖ To reduce the loss of information in 18 seconds, you need to rehearse

- ❖ There are two types of rehearsal- Maintenance and Elaborative

Long Term Memory

The final storing house of memorial information, the long term memory store holds information until needed again.

- ❖ Capacity: unlimited?
- ❖ Duration: indefinite?

Executive Control Processes

- ❖ Also known as executive processor, or Metacognitive skills
- ❖ Guide the flow of information through the system, helps the learner make informed
- ❖ Example processes-attention, rehearsals, organization, Sometimes call METACOGNITIVE SKILLS

Forgetting

The ability to access information when needed

- ❖ There are two main ways in which forgetting likely occurs:
- ❖ Decay-Information is not attended to, and eventually fades away. Very prevalent in Working memory.
- ❖ Inference-New or old information blocks' access to the information in question.

Methods for Increasing the Probability of Remembering

- ❖ Organization- info that is organized efficiently should be recalled
- ❖ Deep processing- This is focusing upon meaning.
- ❖ Elaboration- Connecting new info with old, to gain meaning.
- ❖ Generation- Things we produce are easier to remember than things we hear.
- ❖ Context-Remembering the situation helps recover information
- ❖ Personalization- making the information relevant to the individual
- ❖ Memory Methods
- ❖ Memorization (note the same as learning)
- ❖ Serial Position Effect (recency and primacy) you will remember the beginning and end of list most readily
- ❖ Part Learning- Break up the list to increase memorization
- ❖ Distributed Practice- Break up learning sessions, rather than cramming all the info in at once (Massed Practice)
- ❖ Mnemonics Aids
- ❖ Loci Method- Familiar place, associate list with items in place (i.e. living room)
- ❖ Peg-type- Standard list is a cue to the target list.
- ❖ Acronym – SCUBA
- ❖ Chain Mnemonics- EGBDF
- ❖ Key words Method- Association of new word/ concept with well knows word/concept that sounds similar.

Theories of Intelligence

1. Psychometric Theories

Psychometric theories have sought to understand the structure of intelligence; from it takes, it categories, and its composition. Underlying psychometric intelligence theory is a psychological model according to which intelligence is a

combination of abilities that can be measured by mental testing. These tests often include analogies , classification / identification, and series completion. Each test score is equally weighted according to the evidence of underlying ability in each category

British psychologist Charles E. Spearman published the first psychometric theory 1904. His theory noted that people who excelled on one mental ability test often did well on the others, and people who did poorly on one of them tended to do poorly with others. Using this concept, Spearman devised a technique of statistical analyzing that examined patterns of individual scores. This analysis helped him discover what he believed to be the two sources if these individual differences: the "general factor" which is our general intellectual ability, and a test-specific factor.

American psychologist L.L. Thurstone disregarded with Spearman's theory and his isolation of the "general factor" of intelligence. Thurstone believed that the "general factor " resulted from Spearman;s method of analysis, and that if analysis were more thorough, seven factors would emerge. These seven factors were collectively called the "primary mental abilities" and included verbal comprehension, verbal comprehension, verbal fluency, numbers, spatial visualization, inductive reasoning, memory, memory and perceptual speed.

Most psychologists agree that a broader subdivision of abilities than Spearman's classification is necessary, but only some agree with hierarchal subdivision. It quickly became apparent to many psychologists that were problems that could not be addressed by psychometric theories. The number of abilities could not be positively identified, and the differences between them could not be clearly defined due to the limitations of testing and analysis. However ,the most significant problem extended beyond the number of abilities: what happens in someone's mind when they are using the ability in question? Psychometric theories had no means of addressing this issue, and cognitive theories began to fill this gap.

2. Cognitive Theories

During the era of psychometric theories, people's test scores dominated the study of intelligence. In 1957, American psychologist Lee Cronbach criticized how some psychologists study individual differences and other study commonalities in human behavior, but the two methods never meet. Cronbach voiced the need for two methods to be united, which let to the development of cognitive theories of intelligence.

Without understanding the processes underlying intelligence, we cannot come to accurate conclusions when analyzing test scores or assessing someone's performance. Cognitive analysis helps the interpretation of the test scores by determining to what degree the score reflects reasoning ability and the degree to which it is a result of not understanding the questions or vocabulary. Psychometric theories did not differentiate between these two factors, which have a significant effect on the determination of intelligence. Many people are excellent reasoners but have modest vocabularies, and vice versa.

Underlying the cognitive approach to intelligence is the assumption that intelligence is comprised of a set of mental representations of information, and a

set of processes that operate the mental representations. It is assumed that a more intelligent person represents information better, and operates more quickly on these representations than does a less intelligent person.

Several different cognitive theories of intelligence have emerged over the years. One was introduced by Earl Hunt, Nancy Frost, and Clifford Lunneborg, who in 1973 showed one way on which psychometric and cognitive modeling could be combined. Instead of using conventional psychometric tests, they used tasks that allowed them to study the basis of cognition-perception, learning and memory. Individual differences in the tasks became apparent, which they related to differing patterns of performing and operating manual representations.

Several years later, Robert Sternberg suggested an alternative approach to studying cognitive process. He argued, based on evidence he had gathered, that there was only a weak relationship between basic cognitive tasks and psychometric test scores because the tasks being used were too simple. Although simple tasks involve cognitive processes, they are peripheral rather than central.

Although opposing cognitive theories exist, they are all based on the serial processing of information, which means that cognitive processes are executed one after another in a series.

The assumption is that we process chunks of information one at a time, trying to combine the processes into an overall problem-solving strategy. Other psychologists have challenged this idea, arguing that cognitive processing is parallel, meaning that we process large amounts of information simultaneously. However, it has proved difficult to distinguish between serial and parallel models of information processing.

Despite evidence and support of cognitive intelligence theories, a major problem remains regarding the nature of intelligence. Cognitive theories do not take into account that the description of intelligence may differ from one cultural group to another. Even within mainstream cultures, it is known that conventional tests do not reliably predict performance. Therefore in addition to cognition, the context in which the cognition operates also needs to be accounted for.

Exceptional Development (Cognitive Development)

Giftedness- For many years, psychometricians and psychologists, following the footsteps of Lewis Terman in 1916, equated giftedness with high IQ. This “legacy” survives to the present day, in that giftedness and high IQ continue to be equated in some conceptions of giftedness. Since that early time, however, other researchers (e.g., Cattell, Guilford, and Thurstone) have argued that intellect cannot be expressed in such a unitary manner, and have suggested more multifaceted approaches to intelligence. Research conducted in the 1980s has provided data which support notions of multiple components to intelligence. This is particularly evident in the examination of “giftedness” by Sternberg and Davidson in their edited *Conceptions of Giftedness*. The many different conceptions of giftedness presented, although distinct, are interrelated in several ways. Most of the investigators define giftedness in terms of multiple qualities, not all of which are intellectual, IQ scores are often viewed as inadequate measures of giftedness. Motivation, high self concept, and creativity are the key qualities in many of these broadened conceptions of giftedness.

Mental Retardation- is a term for a pattern of persistently slow learning of basic motor and language skills (“milestones”) during childhood, and a significantly below-normal global intellectual capacity as an adult. One common criterion for diagnosis of mental retardation is tested intelligence quotient (IQ) of 70 or below and deficits in adaptive functioning.

People with mental retardation may be described as having developmental disabilities, global development delay or learning qualities.

Autism- is a brain development disorder characterized by impairments in social interaction and communication, and restricted and repetitive behavior, all exhibited before a child is three years old. These characteristics distinguish autism from milder spectrum disorder (ASD).

Autism affects many parts of the brain, how this occurs is poorly understood. Parents usually notice signs in the first year or two of their child’s life, Early intervention may help children gain self-care and social skills, although few of these interventions are supported by scientific studies. There is no cure, with severe autism, independent living is unlikely; with milder autism, there are some success stories for adults, and an autistic culture has developed, with some seeking a cure and others believing that autism is a condition rather than a disorder.

Asperger’s Syndrome- (also Asperger’s Syndrome, Asperger’s disorder, Asperger’s AS, or AD) is one of several autism spectrum disorders (ASD) characterized by difficulties in social interaction and by restricted and stereotyped interests and activities. AS is distinguished from other ASDs in having no general delay in language or cognitive development, There is no single treatment for AS, and the effectiveness of particular interventions is supported by only limited data. Intervention is aimed at improving symptoms and function. The mainstay of treatment is behavioral therapy, focusing on specific deficits to address poor communication skills, obsessive or repetitive routines, and clumsiness. Most individuals with AS can learn to cope with their differences, but may continue to need moral support encouragement to maintain an independent life. Adults with AS have reached the highest levels of achievement in fields such as mathematics, physics and computer science, Researchers and people with AS have contributed to a shift in attitudes away from the notion that AS is a difference rather than a disability.

Down Syndrome_ Down syndrome or Trisomy 21 (usually Down’s Syndrome in British English) is a specific disorder caused by the presence of all or part of an extra 21st chromosome. It is named after John Langdon Down, the British doctor who described it in 1866. The condition is characterized by a combination of major and minor differences in structure. Often Down syndrome is associated with some impairment of cognitive ability and physical growth as well as facial appearance. Down syndrome can be identified during pregnancy or at birth. Individuals with Down syndrome can have a lower than average cognitive ability, often ranging from mild to moderate learning disabilities. Developmental disabilities often manifest as tendency toward concrete thinking or naivete. A small number have severe to profound mental disability. The incidence of Down syndrome is estimated at 1 per 800 to 1,000 births

APPLICATION

Questions for Discussion

1. Describe behaviors to illustrate the preschooler's:
 - Animism
 - Egocentrism
 - Centration
 - Lack of conservation
 - Irreversibility
 - Transductive Reasoning

REFLECTION

From the Module on the Cognitive Development of Preschooler, I learned that...
Explained why?

Module 17 SOCIO-EMOTIONAL DEVELOPMENT OF THE PRESCHOOLER

-Maria Rita D. Lucas, Ph.D.

“One test of the correctness of educational procedure is the happiness of the child.”

-Maria Montessori

CHALLENGE

At the end of this Module, the students are expected to:

- Explains Erikson's "crisis" of early childhood, initiative versus guilt
- Explain the development of the preschoolers' sense of self and self-esteem
- Discuss how children develop gender identity.
- Describe the stages of play and how it impacts socio-emotional development
- Discuss the different caregiving styles and their effect on preschoolers
- Describe how significant relationship with parents, siblings and peers affect the preschooler

INTRODUCTION

Socio-emotional development is crucial in the preschool years. We hear a lot of parents and teachers and preschool administrators say that attending preschool is more for "socialization" than for formal academic learning. There is wisdom in this. During the preschool years, children learn about their ever widening environment (Remember Module 10 on Bronfenbrenner?) Preschoolers now discover their new roles outside their home. They become interested to assert themselves as they relate with other people. A lot of very important social skills they will learn during the preschool years will help them throughout life as adults. These skills can even determine the individual's later social adjustments and consequent quality of relationships in adult life.

DEFINITION

The **Erikson life-stage virtues**, in order of the stages in which they may be acquired are:

Hope- basic Trust vs. Mistrust

Will- Autonomy vs, Shame and Doubt

Purpose- Initiative vs. Guilt

Competence- Industry vs. Inferiority

Fidelity- Identity vs. Role Confusion

Love- (in intimate relationships, work and family) Intimacy vs, Isolation

Caring- Generativity vs, Stagnation

Wisdom- Integrity vs. Despair

PARTEN'S STAGES OF PLAY

-Play is the main agenda of the preschool years. Play has a social dimension. As the preschooler develops, social interaction with playmates increases. Mildred Parten, in the 1930's did a study on children's play behavior which led to;

PARTEN'S STAGES OF PLAY

1. **UNOCCUPIED-** The child appears not to be playing but directs his attention on anything that interest him.
2. **ONLOOKER-** The child spends time watching others play. He may talk to them but does not enter into play with them.
3. **SOLITARY PLAY-** The child spends time watching others play. He may talk to them but does not enter into play with them.
4. **PARALLEL PLAY-** The child plays with toys similar to those near him, but only plays beside and not with them. No interaction takes place.
5. **ASSOCIATIVE PLAY-** The child plays with others. There is interaction among them, but no task assignment, rules and organization are agreed upon.
6. **COOPERATIVE-** The child plays with others bound by some agreed upon rules and roles. The goal is maybe to make something, play a game, or act out something.

CAREGIVING STYLE

- Affect the socio-emotional development of the children.

BAUMRIND'S CAREGIVING STYLE

- **Authoritative-** high demandingness and high responsiveness.
- **Permissive-** low demandingness and high responsiveness.
- **Authoritarian-** high demandingness and low responsiveness.
- **Negligent-** low demandingness and low responsiveness.

APPLICATION

1. Choose a big idea from this module and expand it through internet searches and downloads. Prepare powerpoint presentation or a movie (movie maker) intended for use of parents of preschoolers.
2. The best caregiving style is the authoritative style. From all that you have learned from this module, make a list of 10 qualities that an authoritative preschool teacher should have:

REFLECTION

From the Module on the Socio-Emotional Development of Preschooler, I learned that...
Explained why?

Unit 4 The Primary Schooler

Module 18 PHYSICAL DEVELOPMENT OF THE PRIMARY PUPIL

-Heidi Grace L. Borabo, MA.Ed.

"There is always one moment in childhood when the door opens and lets the future in."

-Deepak Chopia, Indian Physician and Author

CHALLENGE

At the end of this Module, the students are expected to:

Describe the different physical characteristics of early school-aged children in your words

Enumerate ideas on how you can apply the concepts in this module in the teaching-learning process.

INTRODUCTION

Middle childhood is the stage when children undergo so many different changes-physically, emotionally, socially and cognitively. This is the stage between 6 to 12 years old. Children in this stage receive less attention than children in infancy or early childhood. The support of the family and friends of the child is very important during this phase of development.

DEFINITION

Physical development involves many different factors, height, weight, and appearance, visual, hearing, and motor abilities. Primary school children undergo many different changes as they go through this stage of development. This could be caused by different factors; both natural and environmental.

A number of factors could indicate how much a child grows, or how much changes in the body will take place:

- Genes
- Food
- Climate
- Exercise
- Medical conditions
- Diseases/ Illnesses

BONES AND MUSCLES

-Childhood years are the peak bones producing year. This is the best time to teach children of good dietary and exercise habits to help them have strong, healthy bones throughout their lives.

MOTOR DEVELOPMENT

-Young school-aged children are gaining control over the major muscles of their bodies. Most children have a good sense of balance. They like testing their muscle strength and skills.

UNIMANUAL- requires the use one hand.

BI-MANUAL- requires the use of two hands activities becomes easier.

GRAPHIC ACTIVITIES- such as writing and drawing are now more controlled but are still developing. They can print their names and copy simple designs, letters and shapes.

COORDINATION- is a series of movements organized and timed to occur in particular way to bring about a particular result (Strickland, 2000).

BALANCE- is the child's ability to maintain the equilibrium or stability of his/her body in different positions.

STATIC BALANCE- is the ability to maintain equilibrium in a fixed position, like balancing in one foot.

DYNAMIC BALANCE- is the ability to maintain equilibrium while moving (Owens, 2006).

SPEED- is the ability to cover a great distance in the shortest possible time.

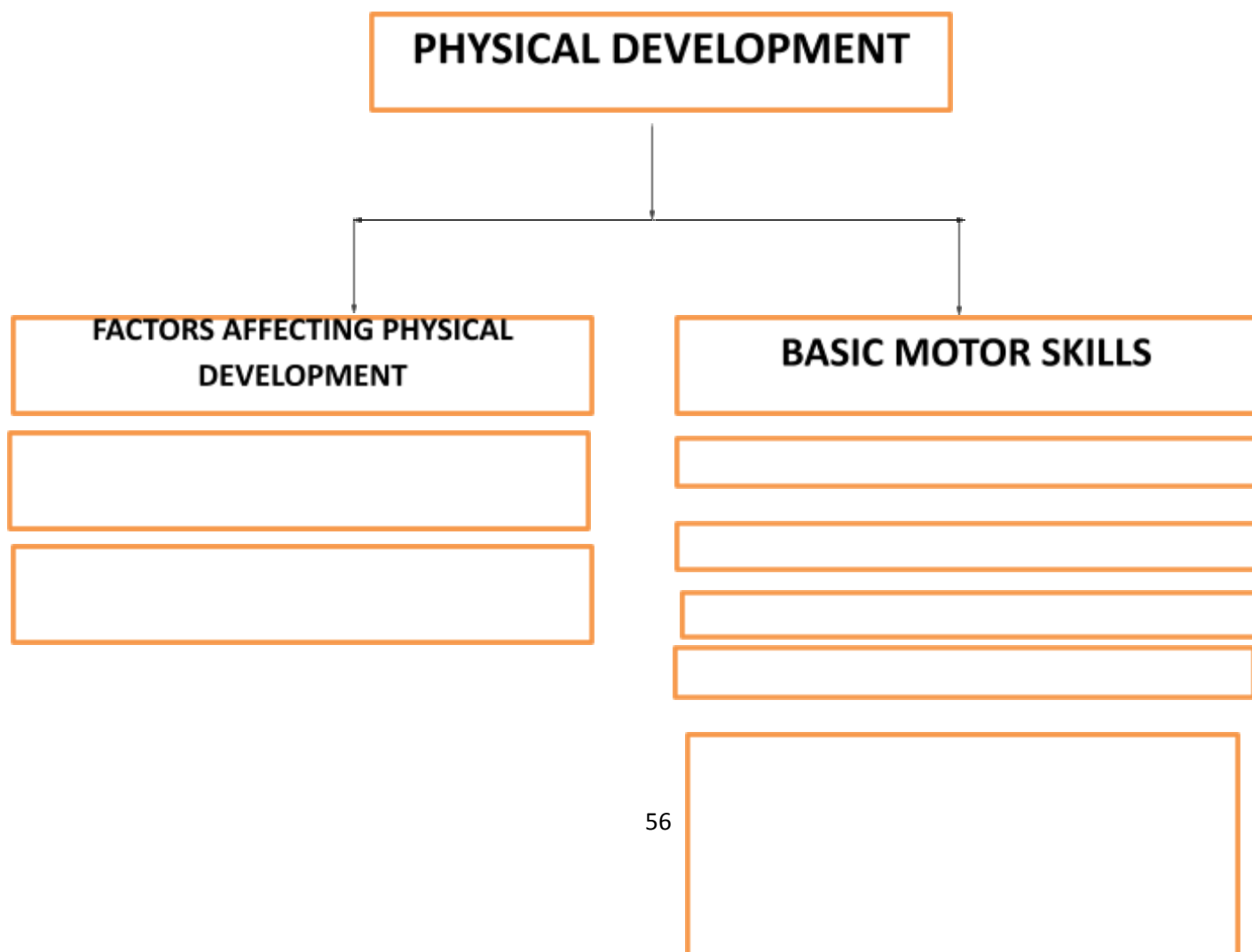
AGILITY- is one's ability to quickly change or shift the direction of the body.

POWER- is the ability to perform a maximum effort in the shortest possible period.

All these motor skills are vital in performing different activities, games and sports. Development of these skills may spell the difference between success and failure in future endeavors of the child.

APPLICATION

1. Complete the graphic organizer below and share your output in class.



REFLECTION

From the Module on the Physical Development of Primary School Children, I learned that... Explained Why?

Module 19

COGNITIVE DEVELOPMENT OF PRIMARY SCHOOLERS

-Heidi Grace L. Borabo, MA.Ed.

"...If you become a teacher, by your pupils you'll be taught."

-O. Hammerstein

CHALLENGE

At the end of this Module, the students are expected to:

Describe the characteristics of children in the concrete operational stage

Explain the importance of information-processing skills and how they affect the child's cognitive development

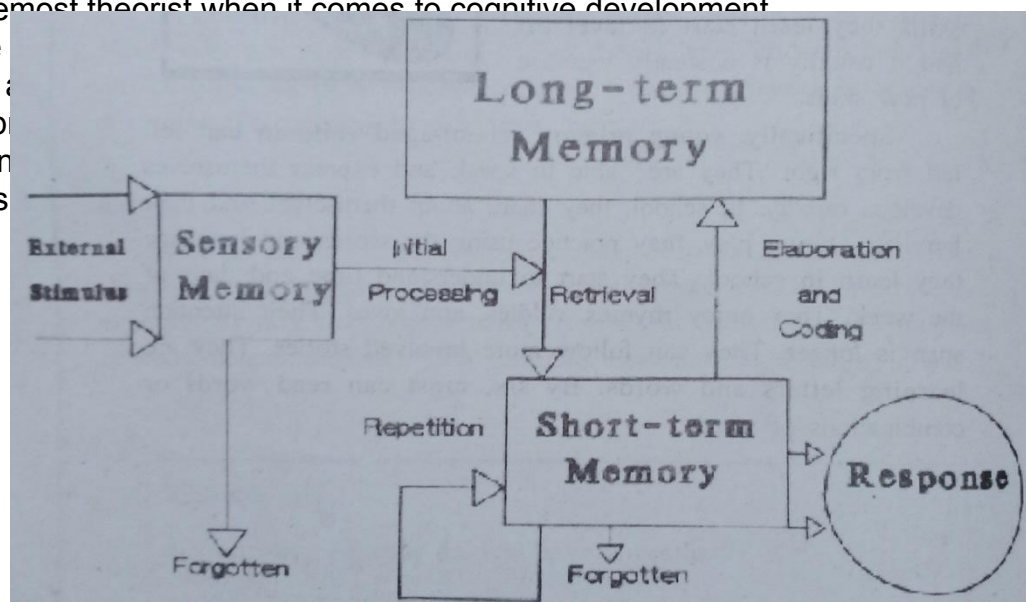
State the different cognitive milestones in primary-schoolers

INTRODUCTION



Jean Piaget is the foremost theorist when it comes to cognitive development. According to him, intelligence is a function of the relations between the person and his environment. The development of intelligence is a continuous process that is influenced by experiences. Piaget described four main periods in the development of intelligence, which are not the same at different ages.

DEFINITION



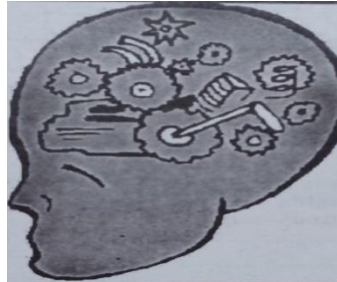
CONCRETE OPERATION- is the third stage in Piaget's theory of cognitive development. It spans from ages 7 to approximately 11 years.

LOGIC- concrete operational thinkers, according to Piaget, can already make use of inductive logic.

INDUCTIVE LOGIC- involves thinking from a specific experience to a general principle. But in this stage, children have great difficulty in using **DEDUCTIVE LOGIC** or using a general principle to determine the outcome of a specific event.

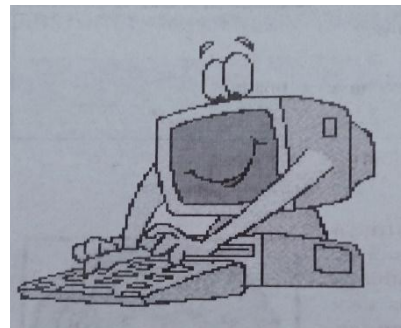
REVERSIBILITY- one of the most important developments in this stage is an understanding or reversibility, or awareness that actions can be reversed. An example of this is being able to reverse the order of relationships between mental categories. (For example in arithmetic, $3 + 4 = 7$ and $7 - 4 = 3$)

COGNITIVE MILESTONE



- Elementary-aged children encounter development milestones. They develop certain skills within a particular time frame. The skills they learn are in a **sequential manner**, meaning they need to understand numbers before they can perform a mathematical equation.

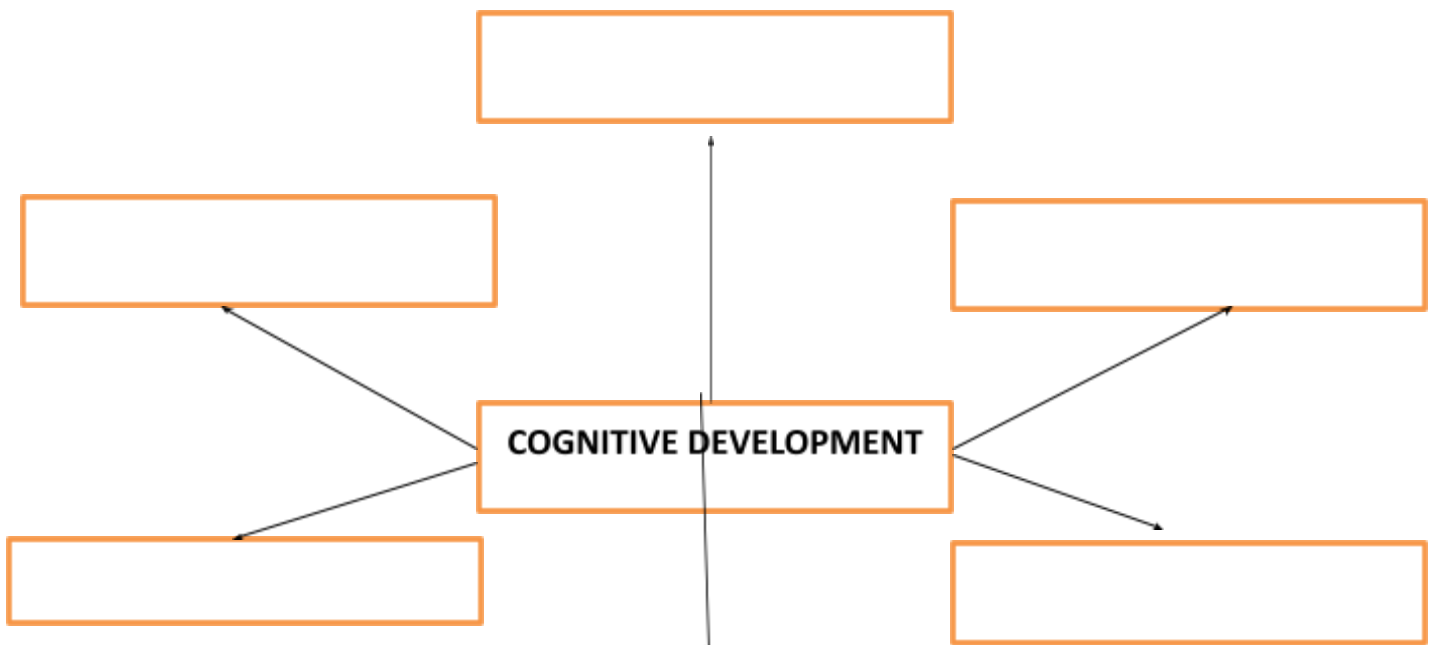
INFORMATION-PROCESSING SKILLS



- Several theorists argue that like the computer, the human mind is a system that can process information through the application of logical rules and strategies.

APPLICATION

Look at the semantic map below. Write down words which come to your mind when **COGNITIVE DEVELOPMENT** is mentioned. Find a pair and compare your answers.



DISCUSSION QUESTIONS:

1. What were the common ideas regarding cognitive development?
2. Are there new ideas regarding cognitive development which you found intriguing?
3. With the advent of the computer age, do you think cognitive development is affected? Explain your answer?

REFLECTION

From the Module on the Cognitive Development of Primary School Children, I learned that... Expand your answer.

Module 20 SOCIO-EMOTIONAL DEVELOPMENT

-Heidi Grace L. Borabo, MA.Ed.

"The secret of education lies in respecting the pupil."

-Ralph Waldo Emerson

CHALLENGE

At the end of this Module, the students are expected to:
Identify the different characteristics of primary school-aged children in this stage of development
Discuss the different factors that affect the socio-emotional growth of the primary-schoolers.

INTRODUCTION

The development theorist, Erik Erikson, formulated eight stages of man's psychosocial development. Each stage is regarded as a "psycho-social crisis" which arises and demands resolution before the next stage can be achieved.

Preschool children belong to the fourth stage of Erikson's psychosocial stage. Here, children have to resolve the issue on **industry vs. inferiority**.

DEFINITION

ERIK ERIKSON'S FOURTH STAGE OF PSYCHOSOCIAL DEVELOPMENT

- **INDUSTRY VS. INFERIORITY** is the psychosocial crisis that children will have to resolve in this stage. Industry refers to child's involvement in situations where long, patient work is demanded of them, while inferiority is the feeling created when a child gets a feeling of failure when they cannot finish or master their school work.

UNDERSTANDING THE SELF

- One's self-concept is the knowledge about the self, such as beliefs regarding personality traits, physical characteristics, abilities, values, goals and roles.

SCHOOL YEARS

- In the transition from pre-elementary to primary school, children tend to become increasingly self-confident and able to cope well with social interactions. The issues of **fairness and equality** become important to them as they learn to care for people who are not part of their families.
- Children, during this stage, most likely belong to a peer group. **PEER GROUPS** are characterized by children who belong approximately to the same age group and the same social economic status.

ANTISOCIAL BEHAVIOR

Some adult may perceive that some children's behavior towards other children as antisocial. When children poke, pull, hit or kick other children when they are introduced, it is fairly.

SELF-CONTROL


Once children reach school age, they begin to make pride in their ability to do things and their capacity to exert effort. They like receiving positive feedback from their parents and teachers.

APPLICATION

Study the situations given below. If you were the teacher, how will you help these learners cope with their socio-emotional difficulties?

Dear Teacher,

I am really heart-broken. My 8-year old daughter is feeling lonely, isolated and friendless. It seems that she has felt this way for quite a while. She says that she mostly spends time alone - that she has no friends because no one wants to play with her.



She tags along, but is usually left out eventually. She can become angry if things don't always go her way and also teary. I don't know where to turn to help her - the thought that she finds school painful is heartbreaking.

Sincerely,
Worried Mother

REFLECTION

From the Module on Socio-emotional Development of Primary School Children, I learned that...

Unit 5 Late Childhood (The Intermediate Schooler)

Module 21 PHYSICAL DEVELOPMENT OF THE INTERMEDIATE PUPIL

-Heidi Grace L. Borabo, MA.Ed.

“The period of late childhood is the period of calm before the growth spurt of adolescence.”

-Anonymous

CHALLENGE

At the end of this Module, the students are expected to:

- Identify the different physical characteristics of intermediate schoolers
- Discuss ways and practices which will aid children in successfully developing physically
- Design a simple exercise program appropriate for intermediate school children

INTRODUCTION

The steady and gradual changes happening in children at this stage, especially with their increasing familiarity with school work and other possible activities provide them with a greater opportunity to develop their motor skill functioning.

DEFINITION

PHYSICAL CHANGES

-Children in their late childhood stage always seem to be in a hurry. They get so busy with their school work, interacting with their friends, exploring other possible activities, but this period of physical development seems to take on a leisurely pace.

APPLICATION

1. Being healthy physically greatly helps children to succeed in their everyday undertaking in their late adulthood. Design a simple exercise program appropriate for children ages 9 to 12. Divide your program into three parts:
 - Part 1: **WARM UP ACTIVITIES**- May include breathing exercises and stretching routines.
 - Part 2: **EXERCISE PROPER**- May consist of three to four sets of exercises which may focus on the following areas: a) body balance and posture, b) endurance, c) muscle strength and/or d) agility.
 - Part 3: **COOLING DOWN or QUIETING ACTIVITY**- includes another set of breathing and stretching exercises.
2. As a teacher, what ideas can you give in order to help intermediate school children develop physically?

REFLECTION

From the Module on the Physical Development of Intermediate School Children, I learned that... Explained Why?

Module 22 COGNITIVE DEVELOPMENT OF INTERMEDIATE SCHOOLERS

-Heidi Grace L. Borabo, MA.Ed.

"It is with children that we have the best chance of studying the development of logical, mathematical, physical and faith knowledge."

-Jean Piaget

CHALLENGE

At the end of this Module, the students are expected to:

Examine the cognitive characteristics of intermediate school children

Discuss important factors that affect the cognitive development of intermediate school children

Enumerate ways on how teachers can promote creativity in the learning environment, learning activities and instructional materials

INTRODUCTION

Since children in this stage are already in their late childhood, rapid development of mental skills is evident. According to Jean Piaget, **concrete operational** thinkers can now organize thoughts effectively, although, they can only logically perceive the immediate situation. They can apply what they have learned to situations and events that they can manipulate. Thus, their reasoning and logical thinking are still very limited. But with proper guidance and nurturance from parents, teachers and the rest of the community, these children can easily succeed in their intellectual endeavors.

DEFINITION

INITIAL COGNITIVE CHARACTERISTICS

-Intermediate school children greatly enjoy the cognitive abilities that they can now utilize. Their thinking skills have become more effective as compared during their primary years.

READING DEVELOPMENT

-Children in this stage, is marked by a wide application of word **attack**. Because of the presence of previous knowledge, they now have a wide vocabulary.

ATTENTION

-Older children have longer and more flexible attention span compared to younger children. Their span of attention is dependent on how much is required by the given task.

CREATIVITY

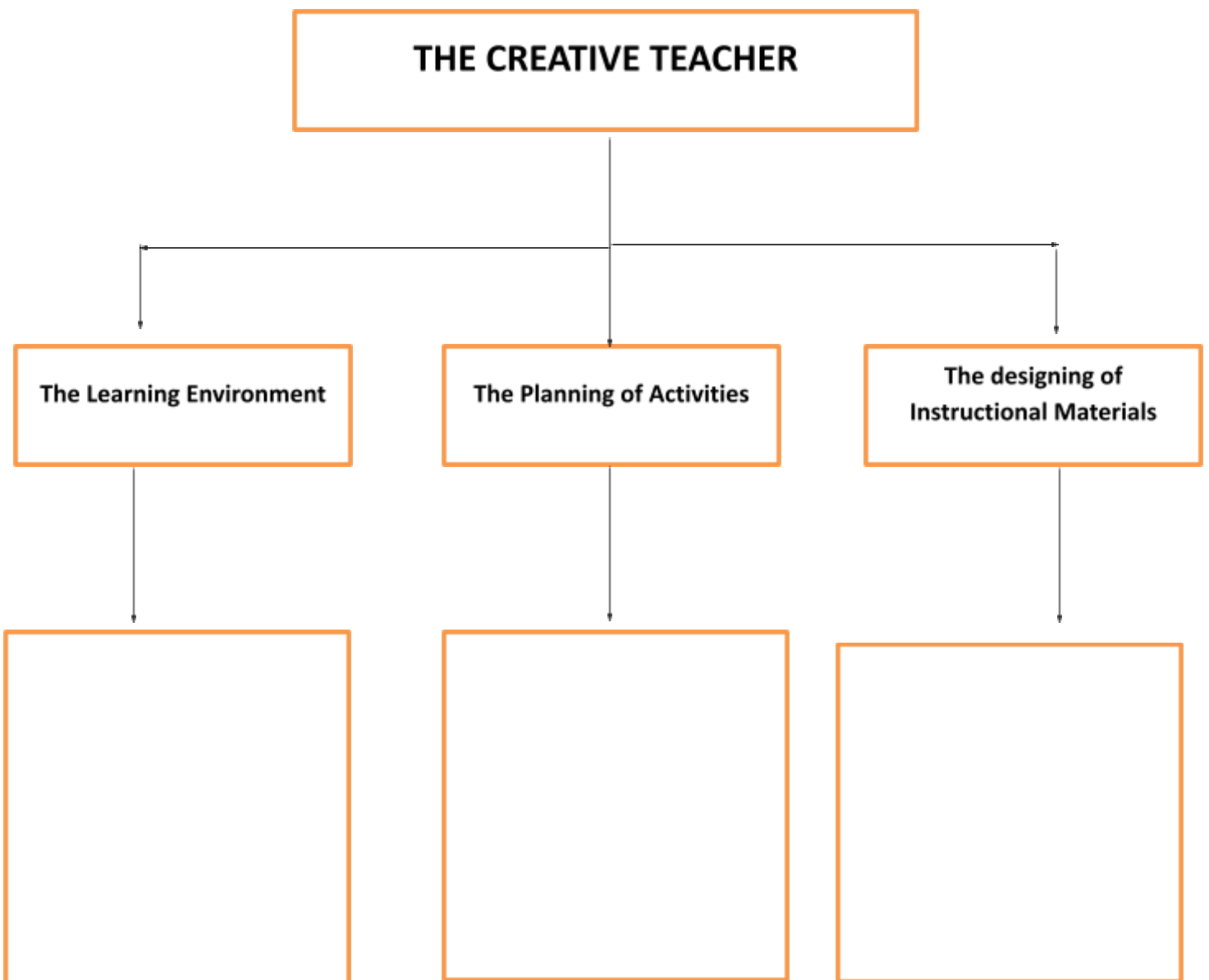
-Is not the finding of a thing, but making something out of it after it is found.-James Russell Lowell

THE IMPACT OF MEDIA

-Television viewing is a highly complex, cognitive activity during which children are actively involved in learning.- Anderson and Collins, 1988

APPLICATION

What can teachers do to help encourage creativity in children? Consider the following areas in the teaching-learning process.



REFLECTION

From the Module on the Cognitive Development of Intermediate School Children, I learned that...

Module 23 SOCIO-EMOTIONAL DEVELOPMENT OF INTERMEDIATE SCHOOLERS

-Heidi Grace L. Borabo, MA.Ed.

“It is difficult to make children miserable when they feel worthy of themselves.”
-Anonymous

CHALLENGE

At the end of this Module, the students are expected to:

Identify the socio-emotional characteristics of children in their late childhood stage

Determine the qualities of family life that affect older children’s development including changes in family interactions

Interview a parent regarding their child’s socio-emotional development

INTRODUCTION

At this period of socio-emotional development, children are spending less time in the home. The bulk of their time is spent outside the home, either alone or with other children, rather than with adults. Older children have already familiarized themselves with other children. They are already used to interacting with different ages and gender. For many of them, these social networks are not only sources of social support but also different forms of learning.

DEFINITION

UNDERSTANDING SELF-COMPETENCE, SELF-IDENTITY AND SELF-CONTENT

SELF COMPETENCE- One of the most widely recognized characteristics of this period of development is the acquisition of feelings of self-competence.

INDUSTRY- Refers to the drive to acquire new skills and do meaningful “work”.

SOCIAL COMPARISON- Distinguishing themselves from others.

PERSPECTIVE-TAKING- This ability increases with age. Perspective taking enables the child to: a) judge others' intentions, purposes and action, b) give importance to social attitudes and behaviors and to c) increase skepticism of others' claims.

EMOTIONAL DEVELOPMENT

Similar to the other areas of development, children in this stage, show improved emotional understanding, increased understanding that more than one emotion can be experienced in a single experience.

BUILDING FRIENDSHIPS

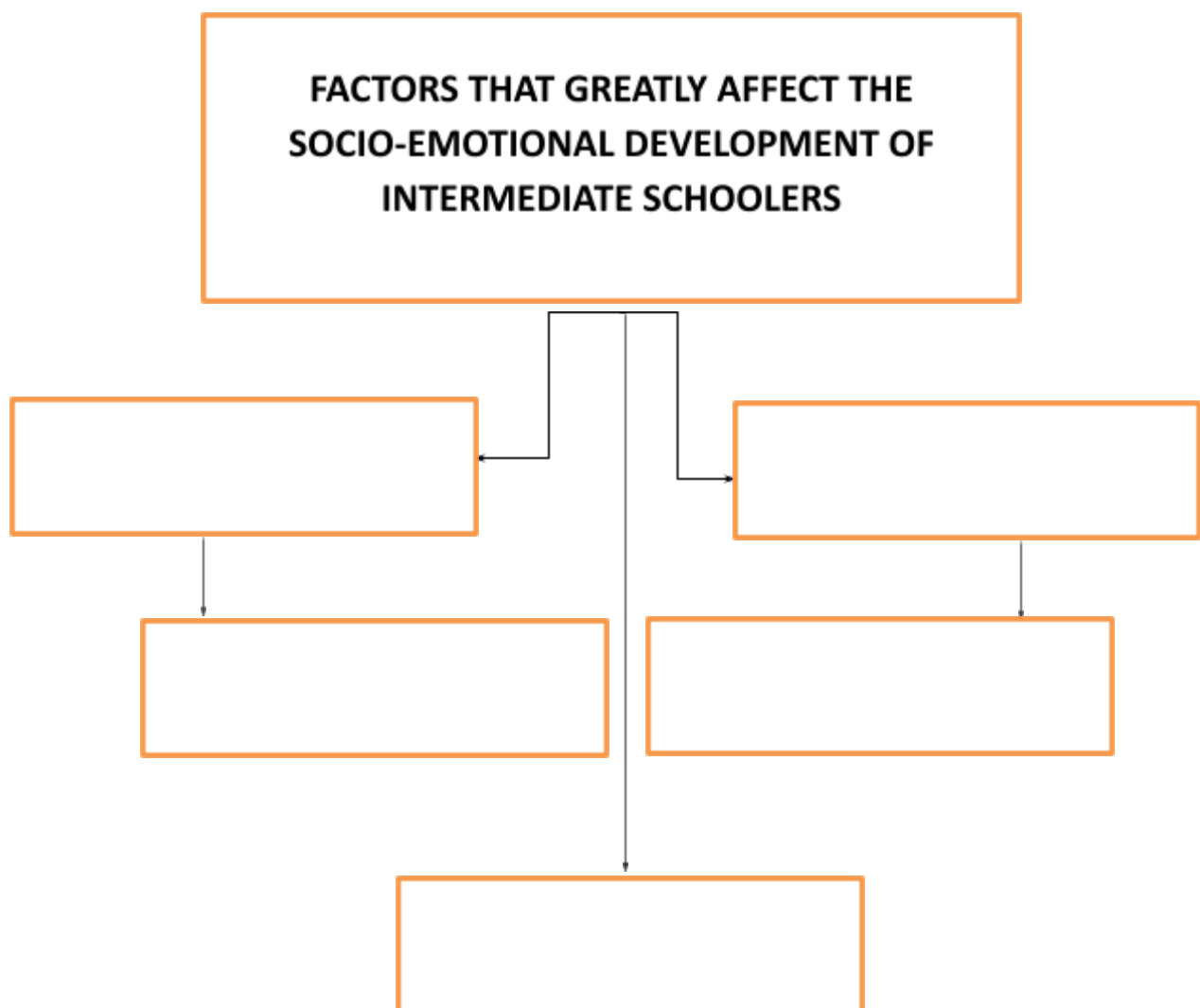
As children go through their late childhood, the time they spend in peer interaction increases. For them, good peer relationships are very important.

FAMILY

Family support is crucial at this stage which characterized by success and failure.

APPLICATION

-Based on the readings and researches that you have, what are the factors which greatly affect the socio-emotional development of children in their late childhood stage.



REFLECTION

From this Module on the Socio-Emotional Development of Intermediate Schoolers, I learned that...

Unit 6 Adolescence (The High School Learner)

Module 24 PHYSICAL DEVELOPMENT OF THE HIGH SCHOOL LEARNER

-Paz I. Lucido, Ph.D.

“Adolescence is just one big walking pimple.”

-Carol Burnett

CHALLENGE

At the end of this Module, the students are expected to:

Define adolescence

Describe the physical and sexual changes accompanying puberty

Identify the psychological consequences of early and late maturation in the period of adolescence

Identify symptoms, causes of possible habit disorder and ways of coping with them

INTRODUCTION

Unconsciously, students who gain admission into high school may be unaware of the dangers and stresses involved in their personal transition during the age of adolescence. Indeed, it can be a rough time for them both at home and school, although the kind of disturbing events adolescent students may likely meet head-on will depend on the physical-social environment surrounding each individual learner.

DEFINITION

ADOLESCENCE- begins with biological changes of puberty and ends with role and work of adult life. The specific ages for this period vary from person to person but distinct phases have been identified.

PUBERTAL CHANGES- In all cultures, biological change comprises the major transition from childhood to early adolescence.

THE GROWTH SPURTS- Throughout life, the growth hormone conditions gradual increases in body size, and weight, but hormone flooding occurs during adolescence causing an acceleration known as the growth spurt.

SEXUAL MATURITY- The series of hormonal changes accompanying puberty is complex.

Hormones- are recognized to be powerful and highly specialized chemical substances that interact with bodily cells.

Gonadotropic Hormones- are secreted by the anterior pituitary, which lies beneath the base of the brain and are situated approximately at the geometric center of the human head.

Gonads- which are the ovaries in the female and the testis in the male, are then stimulated by the gonatrotropic hormones, in turn stimulating their own hormones. When the male testis is stimulated by the gonadotropic hormones.

Testosterone- is secreted, while

Estrogen- is secreted when the female ovary is stimulated.

Menarche- first menstruation.

Spermache- signals the first sign of puberty and sexual maturity in boys.

THE SECULAR TREND

- The striking tendency for children to become larger at all ages has been perceived during the past one hundred years.
- The phenomenon reflects a more rapid maturation compared with that occurring in previous millennia.

ADOLESCENT SLEEPING HABIT

- Studies show that teenagers are not getting enough sleep, and would want more sleep. Actually, lack of sleep is likely caused by changes in adolescent behavioural patterns.

EXPLORATION

- Instinctively, adolescents become aware of changes in sexuality, thus undergoing a period of exploration and adjustments.

PLUSES AND MINUSES IN EARLY OR LATE MATURATION

- Early or late maturation deserves due consideration, as this can be a factor for adolescent acceptance and comfort or satisfaction with his/her body image.

THE IDEAL MASCULINE AND FEMININE PHYSIQUES

- Most adolescents desire an “ideal body”, which is the same as being physically attractive or handsome in face (features of the eyes, nose, lips, hair, etc.) and in body (tall and muscular for boys and tall and slender for girls).

ADOLESCENTS AND NUTRITION

- Necessary for adolescents years are sufficient amounts of vitamin B12 (found in animal protein), calcium, zinc, iron, riboflavin and vitamin D. Magic diet schemes suggested by advertising and magazines to lose weight, give a radiant hair, whiten the skin, etc.

THE IDEAL BODY

- It's important that adolescents feel confident about their body image. The physical features of the human body (facial looks, body size, color of skin, etc.) depend on genetic heritage which must generally be respected.

APPLICATION

1. Cite at least 5 big ideas from this Module. Give a concrete application of each in your personal life.

BIG IDEAS FROM THIS MODULE	CONCRETE APPLICATION IN YOUR LIFE
1.	
2.	
3.	

4.	
5.	

REFLECTION

JOURNAL ENTRY

Reflect on how as a future teacher can you foster the development of Adolescent high school learners, such that the learners:

1. Become aware of the personal transition-problems and stresses springing from physical changes affecting him/her as an adolescent.#
2. Can overcome possible problems and stresses as adolescents;
3. Are capable identifying the problems and stresses peculiar to Filipino high school students, different from students of other cultures (e.g. Americans, Europeans, etc.).

Module 25 COGNITIVE DEVELOPMENT OF THE HIGH SCHOOL LEARNER

-Paz I. Lucido, Ph.D.

“Adolescence is that time when I think it can be...”

-Anonymous

Learning Outcomes :

- At the end of this Module, the students are expected to:
 - Describe the theories of cognitive thinking and relate these to the phases of teaching-and-learning
 - Identify the avenues for the adolescent learner’s acquiring metacognition, elevating his thinking ability base
 - Define overachievement and underachievement and propose possible solutions to underachievement.
 - Explain the outcomes of the adolescent’s new thinking skills, inclusive of egocentrism, idealism and increased argumentativeness

INTRODUCTION

Unconsciously, students who gain admission into high school may be unaware of the dangers and stresses involved in their personal transition during the age of

adolescence. Indeed, it can be a rough time for them both at home and school, although the kind of disturbing events adolescent students may likely meet head-on will depend on the physical-social environment surrounding each individual learner.

DEFINITION

Similarly remarkable as the physical changes in the transitional period of adolescence, are changes in thinking patterns. These changes are marked by the acquisition of new cognitive skills due to the brain's increasing in weight and refining synaptic connections (technically known as the **CORPUS COLLOSUM**) which join and coordinate the two hemispheres of the brain. Another brain development is the process of continuous concentration of the brain cells in the **PREFRONTAL CORTEX** and related temporal and parietal areas (technically known as **MYELINATION**).

PIAGET'S FORMAL OPERATIONAL THINKER

This demonstrates how the cognitive capacity of the adolescents allows him/her to go beyond the sensible and concrete to dwell on what is abstract, hypothetical, multidimensional and possible. In this realm of thought, the adolescent begins to attain subtlety in thinking, entering the sphere of possible and futuribles. More specifically, formal operational thinking consists in:

- a) **Propositional Thinking**- making assertions outside visual evidence, and stating what may be possible in things not seen by the eyes (for example, whether an unseen object is red or green, big or small, flat or round);
- b) **Relativistic Thinking**- subjectively making an opinion on facts involving one's own bias, prejudice or distortion of facts which may be either right or wrong (for example, arguing for or against the superiority of the races, whether white, brown, yellow or black);
- c) **Real versus possible**- examining a situation and exploring the possible in terms of situations or solutions (e.g. possible success in implementing a student project or a school policy).
- d) **Combinational analysis**- which is his taking stock of the effects of several variables in a situation, testing one variable at a time, and not randomly.
- e) **Hypothetico-Deductive Reasoning**- emerges in the adolescent reasoning from general facts/situations to a particular conclusion.
- f) **Problem-Solving Thinker**- this involves identifying problems and seeking new and creative solutions for them.

SIEGLER'S INFORMATION-PROCESSING SKILLS

As in information-processing theorist, Robert Siegler views the influence of the environment on thinking.

- a. **SPEED**- in information processing, coupled with greater awareness and control and acquired knowledge base a more efficient kind of thinking compared with that of the child.
- b. **COMPLEXITY**- by way of considering longer term implications and possibilities beyond the here-and-now, and
- c. **INCREASED VOLUME**- of information processing, coupled with **LONGER MEMORY SPAN**.
- d. **METACOGNITION**- this involves the ability to think above thinking, evidenced by awareness of and capacity of identify one's own thinking processes or strategies- perception, comprehension, memory and problem solving.
- e. **DECLARATIVE**- "I KNOW WHAT"
- f. **PROCEDURAL**- "I KNOW HOW"

OVERACHIEVERS

Achievement and IQ tests are standard measurements of the learner's ability, as well as potentials for success in given areas.

UNDERACHIEVERS

Individuals whose performances are below the measured IQ levels are labelled underachievers. **WITHDRAWN ACHIEVERS** are described as having a more pronounced tendency to be passive (their overt behavior being submissive and docile). **AGGRESSIVE UNDERACHIEVERS** tend to be talkative, if not disruptive and rebellious.

POSSIBLE ADOLESCENT BEHAVIOR DURING COGNITIVE GROWTH

Accompanying cognitive growth are possible behaviors which need to be understood for proper guidance of the adolescent.

1. **EGOCENTRISM**- this is the tendency among adolescents to think too much of themselves, such as to be too sensitive to social acceptance of their appearance, actions, feelings, ideas, etc.
2. **IDEALISM**- the adolescent opens thought on the possible, an avenue to possibly imagining what is far-fetched and less ideal to situations at home, in school, and in society.

DEVELOPING OCCUPATIONAL SKILLS

Generally, the high school curriculum tends to focus on academic cognitive learning, neglecting attention to occupational skills.

1. **REALISTIC**- this personality type prefers practical tasks, often requiring physical labor and motor coordination, and less of interpersonal skills, e.g. in construction (carpenters, drivers, etc.)
2. **INVESTIGATIVE**- they prefer to think rather than act, being interested in tasks that use conceptual skills, e.g. in the field of the sciences and technology (chemists, scientists, technologists, etc.)
3. **SOCIAL**- they are social and tend to engage in interpersonal situations and social interaction, e.g. in the social sciences (social workers, physicians, broadcasters, etc.)
4. **CONVENTIONAL**- they prefer structured tasks, and can subject their needs to those of others, e.g. in office jobs (clerks, manual, etc.)
5. **ENTERPRISING**- they are skilled and constructive in thoughts and actions, and are capable of leading others, e.g. in business, industries (sales, enterprises, etc.)
6. **ARTISTIC**- they prefer unstructured tasks and may show ability for self-expression, e.g. in the arts (artists, musicians, performers, etc.)

Adolescents can show abilities for gainful work, such as those who work part time or full time in fast food restaurants as kitchen help, in retail stores as sales clerks and in offices as messengers and utility personnel.

1. **SELF-RELIANCE**
2. **ABILITY TO MANAGE MONEY**
3. **SOCIAL RESPONSIBILITY**
4. **MATURE WORK ORIENTATION**
5. **PERSONAL RESPONSIBILITY**
6. **POSITIVE ATTITUDES ABOUT WORK**

EXTRACURRICULAR ACTIVITIES

School activities outside the subjects for classroom study are mechanisms for further development of the adolescent student, allowing the acquisition of new attitudes (such as discipline and motivation), knowledge (such as of organization, sports, etc.), and skills (organizing, planning, time-managing, athletics, etc.)

APPLICATION

Give one important concept that you learned under each then give its application in the teaching- learning process.

ONE CONCEPT LEARNED	AN APPLICATION IN THE TEACHING-LEARNING PROCESS
1. Piaget's formal operation stage	
2. Siegler's Information Processing Skills	
3. Metacognition	
4. Overachievement	
5. Underachievement	

REFLECTION

Reflect on the practices of your past teachers. Which ones encouraged your cognitive development as an adolescent and which ones did not? As a future teacher, what lessons have you learned from your past teachers regarding ways of enhancing adolescents' cognitive development?

Module 26 SOCIO-EMOTIONAL DEVELOPMENT

-Paz I. Lucido, Ph.D.

"Adolescence isn't just about prom or wearing sparkly."

-Jena Malone

Learning Outcomes :

At the end of this Module, the students are expected to:
Identify the socio-emotional changes in the adolescent
Describe how self-image develops among teens
Determine the wholesome attitudes and values in teenage friendship
Discern the causes of moral reasoning and feeling, while understanding religiously-imposed morality

Recognize the need of the adolescent for freedom and privacy, also known as adolescent emancipation

INTRODUCTION

During adolescence, the teen shows manifestations of growth as he/she begins to have friends in school, attend parties, goes to discos and keeps intimate friends with the same or with the opposite sex. These external manifestations are signs of socio-emotional growth which usher in self-knowledge, self-identity, social relationships, and what tend to be different from females).

DEFINITION

SELF-UNDERSTANDING- physical and cognitive developments do not come in isolation, but are accompanied by growth in self-image and maturation of feelings among adolescents.

STEREOTYPES IN GENDER DIFFERENCES- Scholars make difference to gender differences, self-esteem in achievement and leadership, while girls see themselves better in terms of congeniality and sociability (Hattie & Marsh, 1996).

DEVELOPING SELF-ESTEEM- Some scholars see the roots of self-esteem in the mother-child relationship.

FRIENDSHIP AND INTIMACY- Teenage friendship is a social system which can be wholesome in terms of sharing of thoughts and feelings, caring for one another, and responding to one another's deeper psychological needs.

SEVERAL TYPES OF FRIENDSHIP

Acquaintances who meet periodically;
Companions who share common interest through regular contacts, and
Intimates or best friends with depth of self-disclosure/ feelings/ caring, romantic partners in intimate heterosexual relationship.

IDENTITY ISSUES- The active search which adolescents engage into try to gain a new understanding of self along sexual, occupational, religious, political self-image is referred to as identity issues.

PHASES OF IDENTITY STATUS

1. **IDENTITY FORECLOSURE-** This is the case of an adolescent who is the follower, finding security in others not in his/her self.
2. **MORATORIUM-** This is the case of an adolescent searcher.
3. **IDENTITY ACHIEVER-** This is the point where the adolescent fully finds himself/herself.
4. **IDENTITY DIFFUSION-** This is the case of the adolescent failing to find him/her.

PROMOTING A SENSE OF IDENTITY- It is clear that successful identity achievement is crucial to developing an integrated personality.

STEREOTYPICAL GENDER ROLES- Several studies on gender stereotype show: On emotional response, girls in early adolescence more time in forming intimate friendship.

ANTISOCIAL BEHAVIORS AMONG ADOLESCENTS- Gerald Patterson formulated a developmental progression for anti-social behavior which takes into account

- a) The importance of parental monitoring and discipline on the child in early childhood
- b) Involvement with peer and school work in middle childhood, and
- c) Commitment with peer group in late childhood and adolescence

MORAL DEVELOPMENT- In his study ethics and topics that have interested moral scientists through the ages, Lawrence Kohlberg laid down three stages of moral reasoning among adolescents:

1. **CONVENTIONAL LEVEL-** At this stage, the adolescent is able to understand and conform to social conventions, consider the motives of peers and adults, engage in proper behavior to please others, and follow the rules of society.
2. **POST-CONVENTIONAL LEVEL-** At this stage, the adolescent wishes to conform to:
 - a) Law and order
 - b) The social contract
 - c) Universal ethical principle

DEVELOPMENT OF GUILT- guilt is a sense of feeling responsible for one's actions, particularly when harm has been done to oneself or others.

INFLUENCES IN MORAL BEHAVIOR- peers can encourage positive behaviors (e.g. example of good study habits), although they can also encourage misconduct or inappropriate behaviors (e.g. use of illegal drugs). Peer influence should not be underestimated.

APPLICATION

Research on any teenage issues and pass a summary of the research by stating the following:

- a) Objectives of the research
- b) Findings
- c) Conclusions and
- d) Recommendations

REFLECTION

Reflect on the practices of your past teachers. Which ones encouraged your socio-emotional development as an adolescent and which ones did not? As a future teacher, what lessons have you learned from your past teachers regarding ways of enhancing adolescents' socio-emotional development?