CHAPTER III: THEORIES OF DEVELOPMENT

1. PIAGETIAN THEORY OF DEVELOPMENT

The term development refers to how people grow, adapt, and change over the course of their lifetimes, through physical development, personality development, socioemotional development, cognitive development (thinking), and language development. This chapter presents four major theories of human development that are widely accepted: Jean Piaget's theories of cognitive and moral development, Lev Vygotsky's theory of cognitive development, Erik Erilzson's theory of personal and social development

1.1. Issues of Development

Two central issues have been debated for decades among developmental psychologists. One relates to the degree to which development is affected by experience, and the other to the question of whether development proceeds in stages.

Nature-Nurture Controversy Is development predetermined at birth, by heredity and biological factors, or is it affected by experience and other environmental factors? Today, most developmental psychologists (e.g., Berk, 2003; Berlz, Bee, & Boyd, 2003; Cook & Cook, 2005; Fabes & Martin, 2000) believe that nature and nurture combine to influence development, with biological factors playing a stronger role , some aspects, such as physical development, and environmental factors playing a stronger role in others, such as moral development.

1.2. Piaget view of cognitive development

Piaget explored both why and how mental abilities change over time. For Piaget, development depends in large part on the child's manipulation of and active interaction with the environment. In Piaget's view, knowledge comes from action (see Langer & IWlen, 1998; Wadsworth, 1996). Piaget's theory of **cognitive development** proposes that a child's intellect, or cognitive abilities, progresses through four distinct stages. Each stage is characterized by the emergence of new abilities and ways of processing information.

1.2.1. How development occurs

1.2.1.1. Schemes

Piaget believed that all children are born with an innate tendency to interact with and make sense of their environments. He referred to the basic ways of organizing and processing information as cognitive structures. Young children demonstrate patterns of behavior or thinking, called schemes, which older children and adults also use in dealing with objects in the world.

- **Adaptation** The process of adjusting schemes in response to the environment by means of assimilation and accommodation.
- **Assimilation** , Understanding new experiences in terms of existing schemes.
- **Accommodation** Modifying existing schemes to fit new situations.
- **Equilibration** The process of restoring balance between present understanding and new experiences.

1.2.1.2. Piaget's Stages of Development

Piaget divided the cognitive development of children and adolescents into four stages: 'Sensorimotor, preoperational, concrete operational, and formal operational. He believed that all children pass through these stages in this order and that no child can skip a stage, although different children pass through the stages at somewhat different rates.

Table 2.1

Piaget's Stages of Cognitive Development

People progress through four stages of cognitive development between birth and adulthood, according to Jean Piaget. Each stage is marked by the emergence of new intellectual abilities that allow people to understand the world in increasingly complex ways.

Stage	*Approximate Ages*	*Major Accomplishments*
Sensorimotor	Birth to 2 years	Formation of concept of "object permanence" and gradual progression from reflexive behavior to goal-directed behavior.
Preoperational	2 to 7 years	Development of the ability to use symbols to represent objects in the world. Thinking remains egocentric and centered.
Concrete operational	7 to 11 years	Improvement in ability to think logically. New abilities include the use of operations that are reversible. Thinking is decentered, and problem solving is less restricted by egocentrism. Abstract thinking is not possible.
Formal operational	11 years to adulthood	Abstract and purely symbolic thinking possible. Problems can be solved through the use of systematic experimentation.

- **Sensorimotor stage (birth to 2 years of age)**

Children experience the world through their five senses. During this stage children are very egocentric, i.e. they cannot perceive the world through others' points of view. During this stage, children move from simple reflexes to progressively developing control over their senses.

- **Preoperational stage (2 to 7 years of age)**

During this stage, motor skills are developed. Children are still egocentric, but this tendency decreases as they become older and begin to take perspective. Children's imagination is at its peak during this period but they cannot think logically, yet.

- **Concrete operational stage (7 to 11 years of age)**

During this stage, children begin to think logically if presented with practical, concrete aids. They are also able to "decenter," that is to say, to perceive the world from others' point of view. The egocentric phase disappears.

- **Formal operational stage (11 to 16 years of age and onwards)**

It is during this stage that children develop their abstract thinking and are fully capable of using logical thinking. Egocentrism has disappeared and is replaced by a feeling of belonging to groups.

1.2.1.3. Educational implications of Piaget theory

Piaget's ideas about learning and development have left an important imprint in education. Methodologies, such as Active Learning and Discovery Learning, stem from his conceptualization of development as a precursor of learning. His ideas became really potent during the second half of the twentieth century and spurred the "student centered" movement in Pedagogy.

Piaget' s theories have had a major impact on the theory and practice of education(Case, 1998). First, the theories focused attention on the idea of **developmentally appropriate education- an** education with environments, curriculum, materials, and instruction that are suitable for students in terms of their physical and cognitive abilities and their social and emotional needs. Piagetian theory has been influential in constructivist models of learning.

A focus on the process of children's thinking, not just its products

In addition to checking the correctness of children's answers, teachers must understand the processes children use to get to the answer. Appropriate learning
experiences build on children's current level of cognitive functioning, and only when teachers appreciate children's methods of arriving at particular conclusions are they in a position to provide such **e x p e r i e n c e s .**

a) **Recognition of the crucial role of children's self-initiated, active involvement in learning activities.**

In a Piagetian classroom the presentation of ready-made knowledge is deemphasized, and children are encouraged to discover for themselves through spontaneous interaction with the environment. Therefore, instead of teaching didactically, teachers provide a rich variety of activities that permit children to act directly on the physical world.

b) A de-emphasis on practices aimed at making children adult like in their thinking.

Piaget referred to the question "How can we speed up development?" as "the American question." Among the many countries he visited, psychologists and educators in the United States seemed most interested in what techniques could be used to accelerate children's progress through the stages. piagetian-based educational programs accept his firm belief that premature teaching could be worse than no teaching at **all,** because it leads to super-ficial

c) Acceptance of individual differences in developmental progress.

Piaget's theory assumes that all children go through the same developmental sequence but that they do so at different rates. Therefore, teachers must make a special effort to arrange classroom activities for individuals and small groups of children rather than for the total class group. In addition, because individual differences are expected, assessment of children's educational progress should be made in terms of each child's own previous course of development, not in terms of normative standards provided by the performances of same-age peers.

2. VYGOTSKY' S SOCIOCULTURAL THEORY

Lev Semionovich Vygotslzy was a Russian psychologist who, though a contemporary of Piaget, died in 1934. His worlc was not widely read in English until the 1970s. Vygotsky's work is based on two key ideas. First, he proposed that intellectual development can be understood only in terms of the historical and cultural contexts children experience. Second, he believed that development depends on the **sign systems** that individuals grow up with: the symbols that cultures create to help people think, communicate, and solve problems-for example, a culture's language, writing system, or counting system. In contrast to Piaget, Vygotsky proposed that cognitive development is strongly linked to input from others. Like Piaget, however, Vygotsky believed that the acquisition of sign systems occurs in an invariant sequence of steps that is the same for all children.

2.1 How Development Occurs

Recall that Piaget's theory suggests that development precedes learning. In other words, specific cognitive structures need to develop before certain types of learning can talze place. Vygotslzy's theory implies that cognitive development and the ability to use thought to control

our own actions require first mastering cultural communication systems and then learning to use these systems to regulate our own thought processes. He suggested the following steps:

2.1.1. Self-regulation

At this point, children become self-regulating, and the sign system is internalized.

- The first step in the development of self-regulation and independent thinking is learning that actions and sounds have a meaning. For example, children learn to associate certain sounds with meaning.
- The second step in developing internal structures and self-regulation involves practice. The preschooler will enter into conversations with others to master language.
- The final step involves using signs to think and solve problems without the help of others.

2.1.2. Private Speech

Private speech is a mechanism that Vygotsky emphasized for turning shared knowledge into personal knowledge. Vygotsky proposed that children incorporate the speech of others and then use that speech to help themselves solve problems. Private speech is easy to see in young children, who frequently talk to themselves, especially when faced with difficult tasks. Later, private speech becomes silent but is still very important.

2.1.3. The Zone of Proximal Development:

He believed that learning takes place when children are working within their **zone of proximal development.** Tasks within the zone of proximal development are ones that a child cannot yet do alone but could do with the assistance of more competent peers or adults. That is, the zone of proximal development describes tasks that a child has not yet learned but is capable of learning at a given time.

2.1.4. Scaffolding

- Typically, scaffolding means providing a child with a great deal of support during the early stages of learning and then diminishing support and having the child take on

increasing responsibility as soon as she or he is able. Parents use scaffolding when they teach their children to play a new game or to tie their shoes. A related concept is cognitive apprenticeship, which describes the entire process of modeling, coaching, scaffolding, and evaluation that is typically seen whenever one-to-one instruction takes place.

2.1.5. Cooperative Learning

- Vygotsky's theories support the use of cooperative learning strategies in which children work together to help one another learn. Because peers are usually operating within each others' zones of proximal development, they provide models for each other of slightly more advanced thinking. In addition, cooperative learning makes children's inner speech available to others, so they can gain insight into one another's reasoning process. Vygotsky (1978) himself recognized the value of peer interaction in moving children forward their thinking.

2.3 Classroom Applications of Vygotsky's Theory

Jygotsky's concept of the zone of proximal development is based on the idea that development is defined both by what a child can do independently what the child can do when assisted by **an** adult or more competent **peer.**

- knowing both levels of Vygotslry's zone is useful for teachers, for these levels indicate where the child is at a given moment as well as where the child is going. The zone of approximate development has several implications for teaching in the classroom.
- According to Vygotsky, for the curriculum to be developmentally appropriate, the teacher must plan activities that encompass not only what children are capable of doing on their own but what they can learn with the help of others.
- Vygotslry's theory does not mean that anything can be taught to any child. Only instruction and activities that fall within the zone promote development. Teachers can use information about both levels of Vygotsky's zone of proximal development in organizing classroom activities in the following ways**:**

- Instruction can be planned to provide practice in the zone of proximal development for individual children or for groups of children. For example, hints and prompts that helped children during the assessment could form the basis of instructional activities.
- Cooperative learning activities can be planned with groups of children at different levels who can help each other learn.
- Scaffolding provides hints and prompts at different levels. In scaffolding, the adult does not simplify the task, but the learner is simplified "through the graduated intervention of the teacher".

3. PSYCHOSOCIAL THEORY

As children improve their cognitive skills, they are also developing self-concepts, ways of interacting with others, and attitudes toward the world. Understanding of these personal and social developments is critical to the teacher's ability to motivate, teach, and successfully interact with students at various ages. This section focuses on a theory of personal and social development proposed by Erik Erikson, which is an adaptation of the developmental theories of the great psychiatrist Sigmund Freud. Erikson's work is often called a psychosocial theory, because it relates principles of psychological and social development.

3.1. Psychosocial theory definition

A set of principles that relates social environment to psychological development.

3.2. Stages of Psychosocial Development

Like Piaget, Erikson had no formal training in psychology, but as a young man he was trained by Freud as a psychoanalyst. Erikson hypothesized that people pass through eight psychosocial stages in their lifetimes. At each stage, there are crises or critical issues to be resolved. Most people resolve each psychosocial crisis satisfactorily and put it behind them to take on new challenges, but some people do not completely resolve these crises and must continue to deal with them later in life (Miller, 1993). For example, many adults have yet to resolve the "identity crisis" of adolescence. Table below summarizes the eight stages of life according to Erikson's theory. Each is identified by the central crisis that must be resolved.

3.2.1. Stage I: Trust versus Mistrust (Birth i 18 Months)

The goal of infancy is to develop a basic trust in the world. Erikson (1968, p. 96) defined basic trust as "an essential trustfulness of others as well as a fundamental sense of one's own trustworthiness."

This crisis has a dud nature: Infants not only have their needs met, but they also help in meeting the mother's needs. The mother or maternal figure is usually the first important person in the child's world. She is the one who must satisfy the infant's need for food and affection. If the mother is inconsistent or rejecting, she becomes a source of frustration for the infant rather than a source of pleasure.

3.2.2. Stage II: Autonomy versus Doubt (18 Months to 3 Years)

By the age of 2, most babies can walk and have learned enough about language to communicate with other people. Children no longer want to depend totally on others. Instead, they strive toward autonomy, the ability to do things for themselves. The child's desires for power and independence often clash with the desires of the parent. Erikson believes that children at this stage have the dual desire to hold on and to let go. Parents who are flexible enough to permit their children to explore freely and do things for themselves, while at the same time providing an ever-present guiding hand, encourage the establishment of a sense of autonomy. Parents who are overly restrictive and harsh give their children a sense of powerlessness and incompetence, which can lead to shame and doubt in one's abilities.

3.2.3. Stage Ill: Initiative versus Guilt (3 to 6 Years)

During this period, children's continually maturing motor and language skills permit them to be increasingly aggressive and vigorous in the exploration of both their social and their physical environment. Three-year-olds have a growing sense of initiative, which can be encouraged by parents, other family members, and other caregivers who permit children to run, jump, play, slide, and throw. "Being firmly convinced that he is a person on his own, the child must now find out what kind of person he may become" (Erikson, 1968, p. 11 5). Parents who severely punish children's attempts at initiative will make the children feel guilty about their natural urges both during this stage and later in life.

3.2.4. Stage IV: Industry versus Inferiority (6 to 12 Years)

Entry into school brings with it a huge expansion in the child's social world. Teachers and peers take on increasing importance for the child, while the influence of parents decreases. Children now want to make things. Success brings with it a sense of industry, a good feeling about oneself and one's abilities. Failure creates a negative self-image, a sense of inadequacy that may hinder future learning. And "failure" need not be real; it may be merely an inability to measure up to one's own standards or those of parents, teachers, or brothers and sisters.

3.2.5. Stage V: Identity versus Role Confusion (12 to 18 Years)

The question "Who am I?" becomes important during adolescence. To answer it, adolescents increasingly turn, away from parents and toward peer groups. Erikson believed that during adolescence the individual's rapidly changing physiology, coupled with pressures to make decisions about future education and career, creates the need to question and redefine the psychosocial identity established during the earlier stages. Adolescence is a time of change. Teenagers various experiments as they try to find out who they are and who they can be. This new sense of self, or "ego identity," is not simply the sum of the prior identifications. Rather, it is a reassembly or "an alignment of the indvidual' s basic drives (ego) with his or her endowment (resolutions of the previous crises) and his or her opportunities (needs, skills, goals, during adolescence and approaching adulthood)" (Erikson, 1980- p.94).

3.2.6. Stage VI: Intimacy versus Isolation (Young Adulthood)

Once young people know who they are and where they are going, the stage is **set for the** sharing of their life with another. The young adult is now ready to form a new relationship of trust and intimacy with another individual, a "partner in friendship, competition, and cooperation." This relationship should enhance the identity of both partners without stifling the growth of either. The young adult who does not seek out such partnership or whose repeated tries fail may retreat into isolation.

3.2.7. Stage VII: Generativity versus Self-Absorption (Middle Adulthood)

Generativity is "the interest in establishing and guiding the next generation" (Erikson, 1980, p. 103). Typically, people attain generativity through raising their own children. However, the

crisis of this stage can also be successfully resolved through other forms of productivity and creativity, such as teaching. During this stage, people should continue to grow; if they don't, a sense of "stagnation and interpersonal impoverishment" develops, leading to self-absorption and neglecting (Erikson, 1980, p. 103).

3.2.8. Stage VIII: Integrity versus Despair (Late Adulthood)

In the final stage of psychosocia1 development, people look back over their lifetime and resolve their final identity crisis. Acceptance of accomplishments, failures, and ultimate limitations brings with it a sense of integrity, or wholeness; a realization that one's life has been one's own responsibility. The finality of death must also be faced and accepted. Despair can occur in those who regret the way they have led their lives or how their lives have turned out.

3.3. Implications and Criticisms of Erikson's Theory

As with Piaget's stages, not all people experience Erikson's crises to the same degree or at the same time. The age ranges stated here may represent the best times for a crisis to be resolved, but they are not the only possible times. For example, children who were born into chaotic homes that failed to give them adequate security may develop trust after being adopted or otherwise brought into a more stable environment. People whose negative school experiences gave them a sense of inferiority may find as they enter the work world that they can learn and that they do have valuable skills, a realization that may help them finally to resolve the industry versus inferiority crisis that others resolved in their elementary school years. Erikson's theory emphasizes the role of the environment, both in causing the crises and in determining how they will be resolved. The stages of personal and social development are played out in constant interactions with others and with society as a whole. During the first three stages the interactions are primarily with parents and other family members, but the school plays a central role for most children in Stage IV (industry versus inferiority) and Stage V(identity versus role confusion).

Erikson's theory describes the basic issues that people confront as they go through life. However, his theory has been criticized because it does not explain how or why individuals

progress from one stage to another, and because it is difficult to confirm through research (Green, 1989; Miller, 1993)