

# Developmental Theories in Early Childhood Education

*There is nothing so practical as a good theory*

Kurt Lewin (1944, p. 195,  
cited in Slater, Hocking, & Loose, 2003, p. 35).

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### Abstract

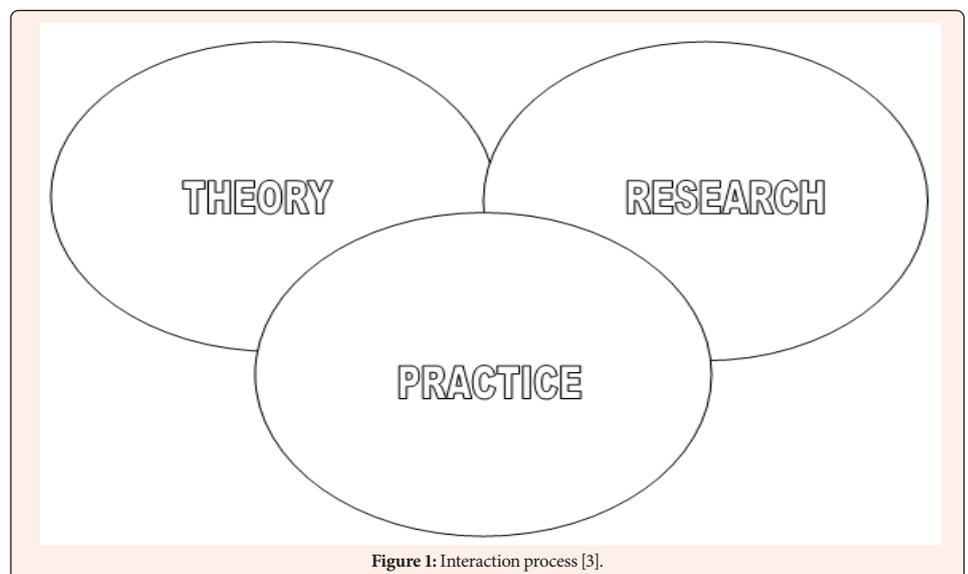
Developmental theories are based on research that suggest philosophies about the children's development. Theorists use the outcomes of their research to systematize and decode data grounded on a scheme to generate their theory. A theory is a methodical account of ideologies based on observed phenomena and their relationship to each other. A child development theory observes and interprets the children's development and behavior. It identifies components in the children's hereditary structure and the environmental situations that affect growth and behavior and the relationship of these elements. Numerous developmental theories provide information on ways to motivate, endure, guide, and nurture the children's performance. Theorists established various developmental theories. Most theories differ and compete with each other, but they are frequently modified. This article describes some developmental theories and their theorists who have affected the disciplines of child development and early childhood education. Theorists include Jean Piaget, Lev S. Vygotsky, Burrhus Frederic Skinner, Urie Bronfenbrenner, and Sigmund Freud theorists. The article also discusses their theories, philosophies, and applications. Interpretations on the meaning of children's development and behavior are explained for each theory. Though the theories are sorted into schools of thought, they are different within each school.

### Developmental Theories in Early Childhood Education

Over the years a number of scholars have used many methods to study developmental theories to provide a framework about how individuals develop throughout their lives from birth to adulthood. They are a source of knowledge about both early childhood education and child development. Knowledge of developmental theories is critical in supporting the children's cognitive abilities throughout their lifespan. They provide a framework that shows how children learn and develop their cognitive, emotional, physical, social, and educational abilities. Most scientists, educators, psychologists, philosophers, and theorists believe that theories generate lasting principles about individuals that guide methods of teaching and selecting research procedures.

### Significance of Theories

Valid and reliable methods of inquiry depend on theories that integrate the researchers' empirical work to contribute current knowledge about how to describe, explain, and improve inter- and intra-individual differences [1]. Thus, theory provides the researchers' methodological alternatives from quantitative, qualitative, or mixed research methods. These modes of inquiry affect knowledge in three domains: theory, research, and practice. According to Saracho [2], "although these spheres often seem independent of one another, they are interrelated. The process of knowledge generation is cyclical, rather than being deductive (top down) or linear (one step always follows another). The forms all overlap. The process usually begins with a problem or issue that needs to be studied through research; this research is driven by theory and practice. The results also contribute to theory and practice, which then provide directions for future research studies. This cyclical process is presented in (Figure 1) [2].





In addition, "By using knowledge generated in the past along with knowledge that is being generated in the contemporary scene, we can best understand early childhood education and serve the teachers and children who engage in it" [2]. That is, theorists "stand on the shoulders of giants" [4].

### Sources of Developmental Theories

A theory is a logical form of conceptual reasoning about a phenomenon. It is a reflective analytical thinking that is processed using research methods. As a result, theories are analytical devices that help understand, explain, and predict situations that can become generalized explanations of a phenomena (such as observable events in nature). In modern science, the term "theory" refers to scientific theories, a well-confirmed type of explanation of nature, made in a way consistent with the scientific method, and fulfilling the criteria required by modern science. Theories of development provide a framework for thinking about human growth, development, and learning. If you have ever wondered about what motivates human thought and behavior or how personalities form, understanding these theories can provide a useful insight into both the individuals and societal influences on early development. They also describe how their development unfolds, sources of vulnerability and protection that influence child development and how the course of development may be altered through prevention and intervention efforts. They are a source that provides knowledge about both early childhood education and child development. Numerous early childhood educators perceived this relationship to be the forerunner to the supremacy of developmental theories over educational theories.

### Child Development and Early Childhood Education

For many centuries child development and early childhood education have had a strong relationship. Knowledge of child development recognizes the children's developmental level to assist in planning the children's education. Child development is a disconnected discipline that has a set of combined theories, where one theory or set of theories dominate. Instead, the discipline has several separate opposing theories. Child development theories are changed when outcomes from research studies challenge their theory. A number of developmental theories explain modifications in the children's development. Some of the developmental theories that had an impact are Jean Piaget, Lev S. Vygotsky, Burrhus Frederic Skinner, Urie Bronfenbrenner, and Sigmund Freud. An overview of their theories is presented in the following sections. Table 1 summarizes these five theories. Information for this table obtained from Saracho [4].

Table 1: Summary of theorists, theories, philosophies and applications.

Theorists	Theories	Philosophies	Applications
Jean Piaget 1896-1980	Cognitive Theory	Individuals energetically construct their own knowledge about their experience. This knowledge facilitates their interpretation about their view of the outside world.	Intellectual Development
Lev Semenovich Vygotsky 1896-1934	Sociocultural Theory of Cognitive Development	Sociocultural theory was conceived on the hypothesis that human interactions occur in cultural situations, which are enabled by language and more symbol configurations.	Language and literacy development
B. F. Skinner (1904-1990)	Behaviorism	Learning involves a modification in behavior is a result of attaining reinforcement.	Reinforcement motivation
Urie Bronfenbrenner (1917-2005)	Ecological	An environmental approach to the individuals' development through the different environments in which they grow and influence change and its cognitive, moral, and relational development.	Social policy in child development and early childhood education includes society, classroom and family environments
Sigmund Freud (1856-1939)	Psychoanalytic	Basic mechanisms of social emotional development arising from human instincts	Child psychotherapy Play therapy

Each of these theories offer explanations about the importance of children's development and behavior. Although the theories are organized into components of thought, they also have differences. Still, each theory contributes important information. Several experts recommend a theoretical eclectic method. They believe that each theory provides researchers and educators the elements that are most appropriate for more understanding of a context and the situation.

### Jean Piaget's Theory of Cognitive Development

Cognitive development describes the children's development and how they manage information and develop their intelligence, perception, and language abilities, which nurture the children's welfare throughout the lifecycle and promote their cognitive abilities Tana Gongb and Tsang (2021). It describes the children's capacity to recognize, understand, and convey their understanding about their world through their reasoning, intelligence, language, and memory. Jean Piaget (1896-1980), the swiss psychologist, founded the theory of cognitive development. He supported the current knowledge on cognition, which had a great impact in the development of cognitive theory. He studied children of various ages to examine their ways of thinking, dreams, moral judgments, and other intellectual experiences. Piaget discovered that in all cultures children's thinking structure advances through a progression of stages. Children apply their schema to combine their modes of analyzing their world. For instance, a newborn has a pattern of recurrent behaviors in comparable circumstances such as seizing a bottle, a rattle, or the edge of the cradle when they catch sight of the object. Their behavior indicates their interpretation of the situation, which is their schema. As children get older and develop language, their schema becomes more abstract. Young children's schema is composed of a collection of behaviors. When they get older and learn language, their schemata (plural for schema) become more abstract and is represented in language. A schema indicates a stage of equilibrium in a pattern of knowledge that might continually change [4].

Changes that materialize in the children's understandings result from two interactive progressions: assimilation and accommodation. Assimilation takes place when children acquire knowledge that they already know. Thus, the schema is extended and described. In contrast, if the new knowledge cannot be assimilated into ways of understanding information that they already know, the schema needs to be accommodated to their current knowledge. Accommodation occurs when individuals acquire knowledge that differs from their previous one. Saracho [4] gives the following example: A young girl is familiar with dogs but has never seen a horse before. She knows that a dog has hair, four legs, and a tail. When she sees a horse for the first time, she may at first identify it as dog. After she is informed that this animal differs from a dog, she will revise her present schema for a dog and construct a new schema for a horse. Both methods (assimilation and accommodation) generate an equilibrium that help children interpret and obtain knowledge. The children's levels of knowledge describe the extent of their equilibration and children have reached a stage of equilibrium.

Piaget theorized a series of phases of intellectual development which represent the children's developmental levels of intelligence. They consist of (1) The sensorimotor stage (birth to two years); (2) The preoperational stage (two to seven years); (3) Concrete operational stage (seven to 11 years); and (4) The stage of formal operations (from 11 or 12 years through adulthood). Each phase indicates the children's intellectual function while the age for each phase is merely an approximation since children proceed through these phases at their individual developmental rate. Each phase of the children's progress depends on their maturation, experience, social transmission, and equilibrium or self-regulation [5]. Together, they determine the children's cognitive development, although Saracho [4] considers that maturation or education practices must be merged to help children become competent learners. For many years neither the United States nor Britain recognized Piaget's research on children, experiments and theories. In the 1960s, the children's lack of academic success in schools generated an interest in his theories and their acceptance in the United States. Piaget credits cognitive development to the developmental phases, which seems rather prevalent; while Vygotsky attributes culture and social interactions to the children's development, which are part of his sociocultural theory of cognitive development.

### Vygotsky's Sociocultural Theory of Cognitive Development

Sociocultural theory was conceived on the hypothesis that human interactions occur in cultural situations, which are enabled by language and more symbol configurations. It is an aspect of Vygotsky's theory that describes learning as a social progression and the beginning of human intelligence in a society or culture. At the beginning of the twentieth century, Vygotsky affirmed that sociocultural theory promoted the young children's cognitive development when they socially interacted with others. He acknowledged that children are social learners prior to becoming cognitive thinkers who produce knowledge [6]. Lev Semenovich Vygotsky (1896-1934), a Russian psychologist, established the sociocultural theory of cognitive development, which concentrates on the interaction between the individuals and the culture in their environment. It specifies that human learning is mostly a social approach. In the first part of the twentieth century, this theory declared that cognitive development in early childhood is



improved through social interactions with others. His innovative theory launched hypotheses about the children's cognitive development, interactionism, and sociocultural theory, among others. Vygotsky established many significant concepts that promoted the children's learning. A major contribution was his impact on educational theories, specifically language and literacy education, which led to his book *Thought and Language* [7], which was translated and published in English in the 1960s. Perhaps the prominent Zone of Proximal Development (ZPD) is Vygotsky's major contribution.

### Zone of Proximal Development (ZPD)

Once children can function without any help, their cognitive development is in the ZPD zone. Children can perform in this zone and acquire advanced abilities with the assistance of more mature intellectuals. Their judgement is enhanced when they attempt to solve problems that are beyond their capabilities. More developed thinkers can facilitate the other children's learning, which is a form scaffolding that allow children to obtain new aptitudes that become part of their repertoires. In their environment, children interact with more knowledgeable developed children who assume this type of thinking. These methods increase their cognitive development and advance on the basis of their progress. Successively, the children's maturity reinforces their learning ability, although their development progresses in difficult situations. The zone of proximal development shows the way the children's performance is socially enabled, such as how their general knowledge has been achieved when they proceed from existing abilities to a superior, culturally advanced phase [8]. Theorists credit Vygotsky's theory that helps young children become resourceful creative adults who search for innovative concepts in the arts, sciences, and the culture in general.

### Burrhus Frederic Skinner Behaviorism Theory

Behaviorism refers to a learning theory that verifies that all behaviors are learned when individuals interact with the environment when they are conditioned in a situation. Therefore, behavior is merely a reaction to environmental stimuli. The target behavior is measured through observable stimulus-response behaviors, which are examined in a systematic and observable system [9]. Burrhus Frederic (B.F.) Skinner (1904-1990) was an American psychologist and a prominent proponent of behaviorism, which considers human behavior based on responses to environmental stimuli. He uses controlled, scientific responses to describe human nature. Skinner's developmental theory was the result of his proficient and controversial treatment of learning theory to solve the children's adjustment, and social difficulties. When their environment is modified, direct observations can indicate [10], the children's behavior changes and learning outcomes as well as how to modify their behavior. Skinner's behavior modification approach guided his Skinnerian doctrine. In the middle of 1950s, he established and enhanced learning devices including teaching apparatuses. Toward the end of the 1960s, he authored programmed textbooks. During the 1970s, he recommended a proposal for social control using operant conditioning [4]. Operant conditioning depends on behavior. For instance, rewards or reinforcers encourage persons to duplicate their activities when they encounter similar circumstances. In contrast, if children encounter upsetting or negative feedback, their interactions will decrease with the repeated behavior. Rewards reinforce a behavior, whereas nonrewarding actions will cease or terminate the behavior completely. Behaviorists believe that a reward is a reinforcer. A positive reinforcer nurtures the action to be repeated when a similar situation occurs. Positive reinforcers provide the learner a certain extent of pleasure. In contrast, negative reinforcement does not punish but eliminates a hostile encouragement from the environment to prevent a negative result or stimuli. Punishment creates an aggressive condition; therefore, it generally stifles learning [9].

Many regarded B. F. Skinner to be among the most prominent psychologist of the twentieth century and his operant learning (conditioning) has shaped the all-inclusive area of psychology and other specialties, including education, neuroscience, and philosophy. Skinner's breakthrough and rationalization of operant learning has greatly impacted the interpretation of behavioral changes in infancy and childhood along with the care of the children's behavioral disorders. In that respect, Skinner joined the group of early childhood theorists who thought that children's learning is influenced by related changes in the individuals' environment [10], which may relate to Urie Bronfenbrenner's ecology theory.

### Urie Bronfenbrenner's Ecological Theory

Ecological theory is based on the significance of the environment in the children's lives and development. This environmental theory affects the children's development in every way. The children's environment is interwoven with the children's systematic patterns. The knowledge of their environment is used to describe, structure,

and process their effects in the domain of ecological psychology. The foremost advocate of ecological theory in child development is Urie Bronfenbrenner. Urie Bronfenbrenner (1917-2005) founded the ecology theory of human development to discover how individuals interact with their environment. He focused on the way children perceived their surroundings. For example, in an environment (e.g., school, home, peer group positions) children participate in a range of activities, roles, and interpersonal relationships, which affect their development. The activities indicate the children's actions; while roles indicate the behaviors that society demands of the individuals' position (e.g., parent, infant, sibling, teacher, friend, coach). Interpersonal relationships are the children's verbal and nonverbal interaction responses in their environment. Bronfenbrenner [11] believed that:

- The phenomenological (internally interpreted or experienced) environment dominates the real environment in guiding behavior.
- It is folly to try to understand a child's action solely from the objective qualities of an environment without learning what those qualities mean for the child in that setting.
- It is important to discover how the objects, people and events in the situation affect the child's motivations, and
- It is essential to recognize the influence on behavior of "unreal" elements that arise from the child's imagination, fantasy, and idiosyncratic interpretations (pp. 2425).
- It is essential to know the children's behavior, perception of the activities, roles, and interpersonal relationships in their environment. As a result, a fraction of the environment may influence the whole configuration as the children try to interpret meaning. Children must have educational qualities that assist them to understand their environments.

Bronfenbrenner's ecological theory has affected the social policy in child development and early childhood education. This influence incorporates both the classroom and family environments. The family, school, community, and culture are all related to each other. Often, the way to positively influence the children's development is to engage in improvements in the community and society along with the establishments that some social agencies provide for the children's development [12].

### Sigmund Freud's Psychoanalytic Theories

Psychoanalytic theory offers an awareness on how the unconscious affects the individuals' thoughts, feelings, and behavior to justify human behavior. For example, the individuals' nervousness may be the cause of traumatic experiences in their childhood that were hidden from consciousness, but they may activate problems all through their adulthood. The individuals' childhood experiences affect their adult lives and create their personality. Psychoanalytic theory take into account both normal and abnormal human capacities and determines the everlasting consequence of early childhood experiences on adult personality and psychological development. It concentrates on the social-emotional realm. Sigmund Freud founded the psychoanalytic theory as a framework to understand the effect of the unconscious on thoughts, feelings, and behavior. Sigmund Freud (1856-1939), an Austrian neurologist and founder of psychoanalysis, fostered the theory that unconscious motives manage the majority of the individuals' behavior. Initially, he focused on hypnosis and its practice with the mentally sick. Then he changed to free association and dream analysis to develop "the talking cure," which turn out to be the essential element of psychoanalysis. He concentrated on hysteria, which is currently known as conversion syndrome. It is important to note that since the 19<sup>th</sup> century Freud's theories and treatment of his patients that were written on scientific and medical reports have been challenged.

Sigmund Freud founded psychoanalysis and the basic mechanisms of social emotional development that stems from human instincts. Psychoanalytic theory concentrates on being aware of stages that are integrated in the young children's experiences. His work was basically with adults but greatly pursued thoughts of childhood experiences. His theory emphasized the important role of early childhood experiences in forming the children's personality. In considering the adults' problems, he explored their early development and discovered the roots of dilemmas in childhood that lasted through adulthood. Freud recommended a sequence of psychosexual stages that children engage as they develop and successfully advance through these stages to acquire a healthy personality. If problems or struggles emerged at any stage, the children can get fixated at that stage and devote most of their energy in coping with conflicts of preceding stages in adulthood. It is important to recognize the children's



conflicts in their early years to guide them in constructing a healthy personality and developing into mature competent adults. Freud's theory prompted an awareness for mental health in young children, and stimulated the presence of child psychotherapy [13]. Freud's understanding of child development enabled him to inspire several essential disciplines of child psychology (e.g., child psychiatry, counseling children and adolescents, nursery school teaching methods, research in child development). The psychoanalytic theory was developed by Freud and concentrated on childhood. His psychoanalytic theory has had an enduring influence on the (1) Progress of the discipline of child development, (2) Foundation of therapeutic programs for children, and (3) Establishment of early childhood education programs. It concentrates on the social-emotional domain. Sigmund Freud was a prevalent figure in the field. Numerous psychologists, researchers, educators, and social workers have recognized and used various concepts from Freudian theory.

### Summary and Conclusion

All of the theories, including those that were discussed, have similar features, but they likewise differ that make each one unique based on their merits. Even though they have both similarities and differences, all focus on the children's individual differences, learning, and environment. They explain the way the children's learning develops. For instance, children recall and obtain knowledge to establish new knowledge. The environment influences the children's learning approach (sociocultural theory, ecological theory) that may modify their behavior (behaviorist theory). Learners are dynamically involved, which is basic for most of the theories. They can use this dynamic undertaking to understand, think, handle information, cooperate with others, control their emotions, and obtain corrective feedback, which is a component of behaviorist theory. All theories address understanding. Thus, children manage and figure out how to use the information to contemplate and consider sociocultural issues [4]. The theories discussed represent some of the theorists' insights on child development. Developmental theories have explained the children's development to early childhood education researchers, psychologists, and educators. They offer knowledge about the children's interests and aptitudes at various age levels. This knowledge assists researchers and educators to recognize the children's abilities according to their developmental level. In addition, they show developmental norms, which are thorough accounts about the children's development. A norm is simply an average of the children's characteristics, but it does not accurately represent each child. Children are alike in many modes, but they vary from each other in major ways. Hence, children need to be observed separately and assessed individually based on developmental standards before putting into practice a research or educational program [3,14].

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