DOMAIN I. CHILD DEVELOPMENT AND LEARNING

Competency 001 Understand child development and the integration of development in the various domains

Skill 1.1 Characteristics of cognitive, physical, social, emotional, language/communicative, and aesthetic development during early childhood

The teacher of students in early childhood should have a broad knowledge and understanding of the phases of development which typically occur during this stage of life. And the teacher must be aware of how receptive children are to specific methods of instruction and learning during each period of development. A significant premise in the study of child development holds that all domains of development (physical, social, and academic) are integrated. Development in each dimension is influenced by the others. Equally important to the teacher's understanding of the process is the knowledge that developmental advances within the domains occur neither simultaneously nor parallel to one another, necessarily.

Physical Development

It is important for the teacher to be aware of the physical stages of development and how changes to the child's physical attributes (which include internal developments, increased muscle capacity, improved coordination and other attributes as well as obvious growth) affect the child's ability to learn. Factors determined by the physical stage of development include: ability to sit and attend, the need for activity, the relationship between physical coordination and self-esteem, and the degree to which physical involvement in an activity (as opposed to being able to understand an abstract concept) affects learning and the child's sense of achievement.

Cognitive (Academic) Development

Children go through patterns of learning beginning with pre-operational thought processes and move to concrete operational thoughts. Eventually, they begin to acquire the intellectual ability to contemplate and solve problems independently, when they mature enough to manipulate objects symbolically. Students in early childhood can use symbols such as words and numbers to represent objects and relations, but they need concrete reference points. Successful acquisition of the skills taught in early childhood, through the fourth grade, will progressively prepare the student for more advanced problem solving and abstract thinking in the later grades. The content of curriculum for younger students must be relevant for their stage of development (accessible and comprised of acquirable skills), engaging, and meaningful to the students.

Social Development

Children progress through a variety of social stages beginning with an awareness of self and self-concern. They soon develop an awareness of peers but demonstrate a lack of concern for their presence. For a time, young children engage in “parallel” activities, playing alongside their peers without directly interacting with one another.

During the primary years, children develop an intense interest in peers. They establish productive, positive, social and working relationships with one another. This area of social growth will continue to increase in significance throughout the child’s academic career. The foundation for the students' successful development in this area is established through the efforts of the classroom teacher to plan and develop positive peer group relationships and to provide opportunities and support for cooperative small group projects that not only develop cognitive ability but promote peer interaction. The ability to work and relate effectively with peers contributes greatly to the child’s sense of competence. In order to develop this sense of competence, children need to be successful in acquiring the information base and social skill sets which promote cooperative effort to achieve academic and social objectives.

High expectations for student achievement, which are age-appropriate and focused, provide the foundation for a teacher's positive relationship with young students and are consistent with effective instructional strategies. It is equally important to determine what is appropriate for specific individuals in the classroom, and approach classroom groups and individual students with an understanding and respect for their emerging capabilities. Those who study childhood development recognize that young students grow and mature in common, recognizable patterns, but at different rates which cannot be effectively accelerated. This can result in variance in the academic performance of different children in the same classroom. With the establishment of inclusion as a standard in the classroom, it is necessary for all teachers to understand that variation in development among the student population is another aspect of diversity within the classroom. And this has implications for the ways in which instruction is planned and delivered and the ways in which students learn and are evaluated.

Emotional Development

In an era of academic accountability, all teachers must remember that they are still teaching children, who are whole individuals. While teachers are not substitutes for parents, they certainly do have a responsibility to look out for the well-being of their students. In early elementary school, children are particularly effected by emotional upsets in family structure, and they are particularly susceptible to emotional harm when they are not cared for in an appropriate manner at home.

While it would be too easy to say that teachers should look out for children who show signs of emotional abuse or emotional neglect, whenever a teacher does notice something unusual in a child's behavior, it might be a good idea to look into it. A note of caution, though: teachers should remember that a student's privacy is extremely important. Furthermore, teachers should remember that all schools, districts, and states have very specific procedures and laws about the reporting of concerns. Yet, it goes without saying that teachers who see problems should figure out procedures for dealing with them.

When children are emotionally neglected or have recently endured family upsets, what sorts of things would this impact in a child? Well, first, the level of attention toward school will be greatly reduced. While children may actually think about these things, they may also show signs of jealousy of other children, or they may feel a sense of anger toward other children, the teacher, or their parents. Aggression is a very common behavior of emotionally-neglected children.

When a child has had little verbal interaction, the symptoms can be rather similar to the symptoms of abuse or neglect. The child might have a "deer in the headlights" look and maintain a very socially awkward set of behaviors. In general, such a child will have a drastically reduced ability to express him or herself in words, and often, aggression can be a better tool for the child to get his or her thoughts across.

Although cognitive ability is not lost due to such circumstances (abuse, neglect, emotional upset, lack of verbal interaction), the child will most likely not be able to provide as much intellectual energy as the child would if none of these things were present. But, also, note that the classroom can be seen as a "safe" place by a child, so it is imperative that teachers be attentive to the needs and emotions of their students.

Teachers need to be aware of any traumatic events in a student's life. What may seem trivial to an adult can be very emotionally upsetting for a child. Talk is a great therapy for emotional events and children need time to talk about their problems. This does take time for the teacher, who does have many things to do, but it is essential to provide the time a child needs to talk. However, if a teacher knows something about any emotional event in a child's life, the child should not be forced to talk about it. This should occur naturally.

Eric Erikson articulated a theory that humans go through eights stages of development as they go from infancy to adulthood. Here are the stages that pertain to early childhood programs:

- Infancy to 12 months

During this phase the young child develops the ideas of trust and mistrust. This is evident when the child can't lose sight of the mother or cries when strangers get too close. One has to slowly approach a baby of this age in order to let the child learn whether or not the person is to be trusted.

- Young Childhood - Ages 1 to 3

During this stage, the child develops feelings of shame and doubt along with learning about autonomy. The child wants to be independent and if denied, this could translate into temper tantrums as he tests the adults in charge. Play of all kinds is very important as the child learns the language and self-control.

- Early Childhood – Ages 3 – 5

Here the child learns how to initiate tasks and carry them out. However, the child also learns the quality of guilt in this stage when tasks are not completed. He/She learns how to dream about goals associated with adult life. During this stage the child will begin playing with other children and become aware of the differences between the sexes. There is also some moral development taking place as well.

- Middle Childhood – Ages 6 – 10

The child begins to take pride in work and has a sense of achievement. Friendships develop during this stage as well as learning skills. The child also learns how to act as part of a team.

Language Development

Learning approach

Early theories of language development were formulated from learning theory research. The assumption was that language development evolved from learning the rules of language structures and applying them through imitation and reinforcement. This approach also assumed that language, cognitive, and social developments were independent of each other. Thus, children were expected to learn language from patterning after adults who spoke and wrote Standard English. No allowance was made for communication through child jargon, idiomatic expressions, or grammatical and mechanical errors resulting from too strict adherence to the rules of inflection (childs instead of children) or conjugation (runned instead of ran). No association was made between physical and operational development and language mastery.

Linguistic approach
Studies spearheaded by Noam Chomsky in the 1950s formulated the theory that language ability is innate and develops through natural human maturation as environmental stimuli trigger acquisition of syntactical structures appropriate to each exposure level. The assumption of a hierarchy of syntax downplayed the significance of semantics. Because of the complexity of syntax and the relative speed with which children acquire language, linguists attributed language development to biological rather than cognitive or social influences.

Cognitive approach
Researchers in the 1970s proposed that language knowledge derives from both syntactic and semantic structures. Drawing on the studies of Piaget and other cognitive learning theorists, supporters of the cognitive approach maintained that children acquire knowledge of linguistic structures after they have acquired the cognitive structures necessary to process language. For example, joining words for specific meaning necessitates sensory motor intelligence. The child must be able to coordinate movement and recognize objects before she can identify words to name the objects or word groups to describe the actions performed with those objects. Children must have developed the mental abilities for organizing concepts as well as concrete operations, predicting outcomes, and theorizing before they can assimilate and verbalize complex sentence structures, choose vocabulary for particular nuances of meaning, and examine semantic structures for tone and manipulative effect.

Socio-cognitive approach
Other theorists in the 1970s proposed that language development results from sociolinguistic competence. Language, cognitive, and social knowledge are interactive elements of total human development. Emphasis on verbal communication as the medium for language expression resulted in the inclusion of speech activities in most language arts curricula.

Unlike previous approaches, the socio-cognitive allowed that determining the appropriateness of language in given situations for specific listeners is as important as understanding semantic and syntactic structures. By engaging in conversation, children at all stages of development have opportunities to test their language skills, receive feedback, and make modifications. As a social activity, conversation is as structured by social order as grammar is structured by the rules of syntax. Conversation satisfies the learner’s need to be heard and understood and to influence others. Thus, his choices of vocabulary, tone, and content are dictated by his ability to assess the language knowledge of his listeners. He is constantly applying his cognitive skills to using language in a social interaction. If the capacity to acquire language is inborn, without an environment in which to practice language, a child would not pass beyond grunts and gestures as did primitive man.

Of course, the varying degrees of environmental stimuli to which children are exposed at all age levels creates a slower or faster development of language. Some children are prepared to articulate concepts and recognize symbolism by the time they enter fifth grade because they have been exposed to challenging reading and conversations with well-spoken adults at home or in their social groups. Others are still trying to master the sight recognition skills and are not yet ready to combine words in complex patterns.

Skill 1.2 Chronological age and developmental level

Chronological age refers to the exact age of the child in years and months from the date of birth. This may be higher or lower than the developmental level of the child. Developmental level refers to the age at which children display traits, such as being able to socially interact with other children or be able to print or read. Some children may be right on target and others may lag behind in development, just as there are children who may be far ahead in their development and be able to do these things at an earlier age.

Students are tested before they enter school and during their school years to determine if there is a gap between chronological age and developmental level. Teachers then take the steps necessary to provide the supports the children need in order to narrow this gap. For some children it may not take them very long to catch up with their peers and for others, it may mean extra help all the way through the school years. For those children who are more advanced, supports should also be put in place to challenge them in ways that fit their developmental age. However, the chronological age of the child must be kept in mind when planning activities so as not to introduce topics to children beyond their years.

SEE Skill 1.1 for the various developmental levels.

Skill 1.3 The relationship between development in one domain and development in other domains

Child development does not occur in a vacuum. Each element of development impacts other elements of development. For example, as cognitive development progresses, social development often follows. The reason for this is that all areas of development are fairly inter-related. People laugh about how adolescents often develop slower in the physical domain than they do in the social or cognitive domain (e.g., they may think like teenagers, but they still look like children), however, the truth is that even in such cases, physical development is under progress—just not as evident on the surface. And as children develop physically, they develop the dexterity to demonstrate cognitive development, such as writing something on a piece of paper (in this case, this is cognitive development that only can be demonstrated by physical development). Or, as they develop emotionally, they learn to be more sensitive to others and therefore enhance social development.

What does this mean for teachers? The concept of latent development is particularly important. While teachers may not see some aspects of development present in their students, other areas of development may give clues as to a child's current or near-future capabilities. For example, as students' linguistic development increases, observable ability may not be present (i.e., a student may know a word but cannot quite use it yet). As the student develops emotionally and socially, the ability to use more advanced words and sentence structures develops because the student will have a greater need to express him or herself.

In general, by understanding that developmental domains are not exclusive, teachers can identify current needs of students better, and they can plan for future instructional activities meant to assist students as they develop into adults.

Skill 1.4 Ways in which individual differences affect development in all domains

SEE Skill 1.1 and "Differentiated Instruction" under Skill 22.6

Skill 1.5 Theories and research on typical and atypical child development

Major Theories of Child Development

Early in the twentieth century the study of child development began to explode. In previous studies, children were merely described as tiny adults. It was the expectation that a child's success was the result of the parents who had passed on the genes. However, in the new century the focus of childhood development study was shifted toward the abnormal. Studies began to recognize the advances in cognitive abilities, language usage, and physical growth, in addition to atypical development.

Some of the following are just a few of the many theories of child development that have been proposed by theorists and researchers. More recent theories outline the developmental stages of children and identify the typical ages at which these growth milestones occur.

Psychoanalytic Theories

Sigmund Freud
The theories that Freud presented stressed the importance of childhood events and experiences. These theories only focus on the mental disorder side of functions rather than that of the normal functioning of students. According to Freud, there is a series of "psychosexual stages" that he outlined in "Three Essays on Sexuality" (1915). He proposes that at each stage satisfaction of desire is necessary and later plays a role in adult personality.

Erik Erikson
Erikson's development theory included development throughout the entire human lifespan. Erikson believed that each stage of development is involved in conflict resolution. Impact of overall functioning throughout childhood into adulthood would determine either success or failure. Erikson's theory of psychosocial development is one of the best-known theories of personality in psychology. Similar to Freud, Erikson believed that personality develops in a series of stages. Unlike Freud's theory of psychosexual stages, Erikson's theory describes the impact of social experience across the whole lifespan.

One of the main elements of Erikson's psychosocial stage theory is the development of **ego identity**. Ego identity is the conscious sense of self that we develop through social interaction. According to Erikson, our ego identity is constantly changing due to new experiences and information we acquire in our daily interactions with others. In addition to ego identity, Erikson also believed a sense of competence also motivates behaviors and actions.

Each stage in Erikson's theory is concerned with becoming competent in an area of life. If the stage is handled well, the person will feel a sense of mastery. If the stage is managed poorly, the person will emerge with a sense of inadequacy.

In each stage, Erikson believed people experience a **conflict** that serves as a turning point in development. In Erikson's view, these conflicts are centered on either developing a psychological quality or failing to develop that quality. During these times, the potential for personal growth is high, but so is the potential for failure.

Cognitive Theories

Jean Piaget, a European scientist who died in the late 20th Century, developed many theories about the way humans learn. Most famously, he developed a theory about the stages of the development of human minds. It's very simple. The first stage is the "sensory-motor" stage that lasts until a child is in the toddler years. In this stage, children begin to understand their senses.

The next stage, called the "pre-operational" stage, is where children begin to understand symbols. For example, as they learn language, they begin to realize that words are symbols of thoughts, actions, items, and other elements in the world. This stage lasts into early elementary school.

The third stage is referred to as the "concrete operations" stage. This lasts until late elementary school. In this stage, children go one step beyond learning what a symbol is. They learn how to manipulate symbols, objects, and other elements. A common example of this stage is the displacement of water. In this stage, they can reason that a wide and short cup of water poured into a tall and thin cup of water can actually have the same amount of water.

The next stage is called the "formal operations" stage. It usually starts in adolescence or early teen years and it continues on into adulthood. This stage is what allows critical thinking, hypothesis, systematic organization of knowledge, etc.

Generally, when we say that children move from a stage of concrete thinking to logical and abstract thinking, we mean that they are moving from the "pre-operational" and "concrete" stage TO the "formal operations" stage. But as anyone who spends time with children knows, there are many bumps in the way to a person's ability to be a strong critical thinker. And remember, just because a child has moved into a particular stage does not mean that they will be able to complete function at the specified level. For example, adolescents may be able to think critically, but they need plenty of instruction and assistance to do so at an adequate level. This does not necessarily mean that critical thinking skills should be taught out of context; rather, through all lessons, teachers should work to instill components that help develop the thinking of children.

Behavioral Theories

Theories based upon behavior, and interaction with the environment, are considered behavioral theories. Several theorists contributed to the ideas of behavioral learning. Noted theorists are Watson, Pavlov, and Skinner. These theories deal only with observable behaviors. Development is considered a reaction to rewards, punishments, stimuli, and reinforcement. These behavioral theories are known as operant conditioning and classical conditioning.

Social Development Theories

Social development theories are still growing in popularity today. There is a great deal of research being done regarding the theories of early development, specifically regarding relationships with caregivers and role models. The idea is that these relationships continue to grow and influence social relationships throughout life. John Bowbly proposed one of the earliest theories of social development. His theory was known as the attachment theory.

Theories in Practice in the Classroom

Teachers must be able to acknowledge the various stages of development and theories and implement various practices into teaching and classroom management. Teachers must understand that some techniques will only be effective at certain stages during childhood. For example, if a child develops into the stage in which s/he has learned to master conflict resolution (later adolescence), students at this stage should be provided opportunities to engage in a scientific debate regarding a scientific topic of question (human genome project or was landing on the moon fact or fiction?). Other examples may include developmentally appropriate studies and or experiments such as these:

<u>Early Childhood Students:</u>

- Plant growth - students should plant and provide care, while the teacher models and explains the process of plant growth and stages. (seedling, sprout, watering, sunlight, germination etc.)
- Stages of a butterfly - students can observe the process in which a caterpillar morphs into a butterfly (stages: larva, pupa, cocoon, butterfly)

<u>Elementary Students:</u>

- Introduce an early study of the microscope. This can be displayed by using hand magnification glasses and a class review or group study of an actual microscope
- Study of rocks and porosity - students using droppers filled with water can test the porosity of limestone, shale, slate, sandstone, etc.
- Study of animals and their habitats - students need to experience the importance of animals habitats by building dioramas or personal habitats to which students can better relate