

Augustana College

EDUC 245 – Educational Psychology & Measurement

Concepts addressed:

Human Development in the Physical, Social, Emotional, Moral, Speech/language, and Cognitive Domains

Piaget is a stage theorist. His theory proposes that children go through 4 distinct stages of cognitive development. All children go through the stages in the exact same order and there may be long transitions between stages. The 4 stages are: Sensorimotor (birth to 2 years), pre-operational (2-7 years), concrete operational (6-12 years) and formal operational (12-adulthood). At each stage the quality of students thinking increases. A student may be in the concrete operational stage in an area they have mastered and in the pre-operational stage in an unfamiliar area. The majority of elementary age students are in the concrete operational stage. This stage is characterized by seriation, reversibility, conservation, and transformation. Due to these capabilities students are able to think logically with tangible concepts, they need concrete situations to think at higher levels.

Vygotsky's sociocultural view of cognition does not believe development happens in stages or that it is dependent upon the individuals' lone experiences. He maintains that cognitive development happens in a social context. Parents, teachers and more able peers interacting with the student are necessary for learning to occur. He emphasizes the importance of language in cognitive development and encourages private speech (for younger children this means talking aloud to oneself) to guide thinking. He believes teachers need to identify student's zone of proximal development and then scaffold the content and strategies appropriately. Students need to take on more of the responsibility for their own learning as they master the concept or skill.

Erikson's Psychosocial Development (personality) theory maintains that individuals go through 8 stages to resolve identity formation. At each stage the child encounters a crisis, which must be resolved. Individuals meet an identity issue at each stage and then on a continuum resolve it in either a positive or negative fashion. The degree of healthy or unhealthy resolution determines the child's ability to tackle the next stage. Personality development begins in infancy as the baby bonds with parents or guardians. As the individual gets older those involved in their personality development expands from family to school and neighborhood. Elementary age students are in the Industry vs. Inferiority stage. They need to achieve academically, follow the rules and get along with their peers and teachers in order to feel productive. If the student works hard, persists on challenging tasks, puts work before pleasure and is recognized for their accomplishments they will leave this stage feeling like industrious individuals. If they are punished or face unattainable expectations they will feel inferior. This stage is imperative for establishing self-confidence.

Kohlberg's stages of moral reasoning are based on a justice perspective; the individuals' rights are paramount. There are clear age divisions between the stages and students must be challenged to progress to higher moral thinking (it doesn't happen naturally). Pre-conventional (0-9 years and criminals) student's reason in terms of their own needs. Punishment and rewards motivate their actions. They have difficulty seeing someone else's perspective and do not take into account

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intention (if 5 plates are accidentally broken and 1 plate is purposely broken, the individual who broke the most plates should be more severely punished). Conventional level (10-adolescent) students want to meet the expectations of people important to them such as parents, grandparents, and teachers. It's important for them to hear they are a "good boy." They can take on other's perspectives. Intention makes a difference (they differentiate between an accident and malicious intent). They believe rules and laws are important to maintain the social order. Post-conventional level is the highest level of moral thinking; you must be in Piaget's formal operational stage to have the potential to operate at this level. Individuals at this level are ethical. Laws are simply tools; they can be changed to meet the better good. Primary students are operating at the pre-operational level; many upper elementary students are working at the conventional level.

Language Development is closely aligned with cognitive development. There are two main theories for language development: learning theory and nativist theory. Combining the two theories is helpful in understanding language acquisition. Learning theory states that a child hears a word, repeats the word, is reinforced, and so adds the word to their vocabulary. In this way children learn the language. Nativist theory states that humans are hot-wired to learn language, our brains are innately designed to grasp language skills. Children learn their first words by the end of their first year and continue to build on this. By school age students have mastered their native language. By first grade pronunciation of word sounds, vocabulary, grammar, syntax, semantics, and pragmatics are basically established. Metalinguistic abilities only begin to emerge in the primary grades.

Piaget - Cognitive Theory

Stages	Approximate Age	Characteristics
Sensorimotor	Birth - 2	Object permanence - they know an object exists even when they can't see it
Pre-operational	2-6 or 7	Symbolic thought (language) develops, egocentric, imaginative
Concrete operations	6 or 7 to 11 or 12	Understands conservation, reversibility, seriation, classification, decentration, and transformation. Can differentiate their perspectives from others. Cannot think abstractly. Can think logically with concrete concepts.
Formal Operations	11 or 12 - adulthood	Abstract thought, reason, logical thinking, and hypothetico-deductive reasoning

Erikson - Psychosocial Development Theory

Stages	Age	Description
Basic trust vs. mistrust	Birth - 18mos	Baby learns trust as their basic needs for food, love and warmth are met
Autonomy vs. shame/doubt	18 mo - 3 years	Toddler learns self-control, walking, potty training, feeding and dressing
Initiative vs. guilt	3 - 6 years	Child takes on more tasks and plans and completes tasks
Industry vs. inferiority	6-12 years	Child learns new skills, moves outside of home to school and neighborhood. Persevere in order to accomplish things. A belief in their own level of productivity is created during this stage. Self-confidence is established
Identity vs. role confusion	Adolescence	Teenager explores who they are, forms an identity in ~ender roles, career, etc
Intimacy vs. isolation	Young adult	Develop intimate relationships with someone outside the family
Generativity vs. stagnation	Middle age	Support the younger generation - taking care of a family, service to community
Integrity vs. despair	Late adulthood	Acceptance and fulfillment with life

Kohlberg's Moral Development Theory

Stages	Age	Description
Pre-Conventional	0-9 and criminals	Punishment vs. reward orientation, egocentric, they obey the person in power, intention does not matter
Conventional	9 - Adolescence & many Adults	Meet expectations of family ("good boy"), laws are more important than individuals, follows the Golden Rule, feelings of others are taken into account, intention matters
Post-Conventional	Adulthood	Ethical orientation

Language Development

Age	Characteristics
0-20 Months	Coos, babbles, gestures, understands some words, first words around 1 year, two-word sentences around 18 months
2-4 Years	More complex sentences and uses grammar correctly
5-10 Years	Verb tenses, plurals and passive voice develop and improve
11-18 Years	Develop grammar and pragmatics, understands symbolism, satire, irony

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Physical Development

Age	Characteristics
0-20 Months	Reaches for objects, sits, stands, crawls, walks
2-4 Years	Runs, climbs stairs, rides tricycle, kicks and throws a ball
5-10 Years	Hops skips, jumps rope, rides a bike
11-18 Years	Puberty begins for girls around 10 years old and continues until 16, average age for menstruation to begin is 12 years old, height and weight spurt continue until 16. Pubertal changes for boys begin around 12 years old and height and weight spurt continues until 18, rapid growth – may be 5 inches a year.

Piaget Concrete Operational Stage (ages 6 or 7 to 11 or 12 years old) Before developing instruction consider the following questions:

Do your students have the prior schema to learn the information?

Are your instructional strategies at an appropriate developmental level? Is the content at an appropriate developmental level?

Has the student had the opportunity to work with manipulatives?

Instructional Strategies:

Provide hands on experiences, use manipulatives, relate abstract to concrete, understand their thought process (Journal or discussion), encourage discovery of information by the student, provide a variety of rich activities, premature teaching of information is more detrimental than not, respect and accommodate individual differences, actively involve students, use visual aids, make presentations and readings brief (rule of thumb - 1 minute for every year they are old)

Vygotsky Cognitive Theory

Before developing instruction consider the following questions:

Is my instruction in the student's zone of proximal development? Are they bored or frustrated because the material is too hard or easy?

Has there been enough social interaction (conversation, pairing, cooperative groups) to meet the needs of the students?

Have I been sensitive to the student's culture, is the material irrelevant or contradictory?

Instructional Strategies:

Model strategies (think out-louds), encourage kids to talk through problems, cue, prompt, provide 1/2 done problems, divide large tasks into several small tasks, create heterogeneous cooperative learning groups, allow students to take responsibility for their own learning when appropriate, support reciprocal teaching (teacher guides student in taking on the role of teacher), actively involve students, provide checklists

Erikson's Psychosocial Development Theory - Industry vs. Inferiority Stage (6-12 years)

Instructional Strategies:

Help students set and work toward realistic goals, give them age-appropriate responsibilities, tolerate honest mistakes, show support (praise, encourage, recognize accomplishments), show them their academic and behavioral progress in a concrete manner (graph, chart)

Kohlberg's Moral Development - Pre-conventional (primary) Conventional (upper elem)

Instructional Strategies:

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Be a role model; encourage perspective taking, role-play accepting children with disabilities or how to react when someone says something hurtful.

Information Processing Model

Instructional implications:

Catch the students attention, help them focus on what is most important, tap into prior knowledge, provide review of information, present material in an organized fashion, focus on meaning.

Physical development:

Instructional Activities:

Physical activity supports cognitive growth, provide recess and physical education on a regular basis throughout elementary school years. Encourage physical movement in some class activities.

Development can be divided into four areas: physical development, personality development, social development and cognitive development. People develop at different rates in each of these areas; it is normal for some children to be taller or more social than their peers. Development happens in an orderly fashion; babies roll over, then crawl and then walk. The child in Piaget's concrete operational stage will not necessarily understand conservation of volume, area and length at the same time. But instead, first understand conservation of volume and then after a period of time understand conservation of area and length. Development happens gradually over time. It is not uncommon for students to experience rapid growth in an area followed by slower growth.

Educational implications concerning physical, social emotional, moral, speech/language, and cognitive development are that students must acquire certain skills before they can acquire others, the idea of readiness is pertinent in each of the domains. Students benefit from our understanding of individual needs as they develop.

Every child has a unique background, abilities, and developmental level. Assumptions about student's abilities based on their age alone may be misguided. By understanding what the norm is we can better assist those students that are on the extremes.