Theories of Development

EDU 306
University of Jos

Outline

- Piaget's Theory of Cognitive Development
- Erikson's Stages of Psychosocial Development
- Vygotsky's Sociocultural Theory
- Bronfenbrenner's Bioecological Model of Human Development (Optional)

Piaget's Theory of Cognitive Development

- Piaget proposed that all children pass through four stages of cognitive development
- Children progress through the stages in exact order
  - However, there are individual differences in the rate of passing through stages
- Advancing to a new stage represents a qualitative change in how a child thinks

Piaget's Stages of Cognitive Development

Stage	Age* (years)	Key Characteristic
Sensorimotor	0-2	Think via senses
Pre-Operational	2-7	Moving toward the ability to think logically
Concrete Operations	7-11	Think logically but only with concrete (hands-on) problems
Formal Operations	11+	Thinks logically with abstract problems

Operations: Ability to think logically with the mind

*Ages are approximate because children pass through the stages at their own unique rate

Sensorimotor Stage

- **Sensorimotor:** Infants think by their senses (seeing, hearing, touching, tasting, smelling)and moving
- The key achievement that marks the transition to Pre-Operational stage is **Object Permanence**
  - **Object Permanence**: Understanding that an object exists even when a child cannot sense it
  - Object permanence reflects the ability to symbolize objects in the mind

Pre-Operational Stage

- Children in pre-operational stage can use mental symbolism
  - Language is one type of mental symbolism
- However, children in the pre-operational stage have these limitations in thinking:
  - **Egocentrism**: Assuming that others' viewpoints are the same as the child's own
  - **Unidimensionality**: Focus only on one dimension of a problem
- The key achievement that marks the transition to Concrete Operational stage is **Conservation**

Conservation

- **Conservation**: Principle that some characteristics of an object stay the same despite changes in appearance

Tests of Various Types of Conservation		
Type of Conservation	Initial Presentation	Transformation
Volume	Two equal glasses of liquid.	Pour one into a taller, narrower glass.
Number	Two equal lines of checkers.	Increase spacing of checkers in one line.
Matter	Two equal balls of clay.	Squeeze one ball into a long, thin shape.

Concrete Operations Stage

- Children in concrete operations stage think logically, but only on hands-on tasks
  - Children at this stage cannot yet reason about hypothetical or abstract problems

Formal Operations Stage

- Children in Formal Operations can:
  - Think abstractly
  - Plan a systematic approach to solving a problem

Implications of Piaget's Theory for Education

- Children do not think like adults
  - We must teach how children think, not how we think
- Keep the stage of development in mind when planning lessons.
  - Allow infants and toddlers to use their senses
  - Use concrete learning materials through primary school
  - Encourage JSS students and higher to reason about abstract concepts for higher developmental levels

Erikson's Stages of Psychosocial Development

- **Psycho**: Mental processes
- **Social**: Relating to society
- Erikson proposed 8 stages of psychosocial development
- Each stage is characterized by a crisis
  - **Crisis:** Psychosocial challenge based on the primary event that presents opportunities for development
    - Positive resolution leads to growth
    - Negative or no resolution leads to maladjustment

Erikson's Stages of Psychosocial Development

Stage	Age	Primary Event	Crisis
Infancy	0-1	Feeding	Trust vs. Mistrust
Early Childhood	2-3	Toilet Training	Autonomy vs. Shame & Doubt
Preschool	3-5	Independence	Initiative vs. Guilt
School Age	6-11	School	Industry vs. Inferiority
Adolescence	12-20	Peer relationships	Identity vs. Role Confusion
Young Adults	Mid-20s	Loving relationships	Intimacy vs. Isolation
Adulthood	25-60	Parenting	Generativity vs. Stagnation
Old Age	60+	Reflection & acceptance of life	Ego Integrity vs. Despair

Erikson's Stages of Psychosocial Development

- Stage 1: Trust vs. Mistrust
  - **Positive Resolution**: Trust in the world based on basic needs being met
- Stage 2: Autonomy vs. Shame and doubt
  - **Positive Resolution**: Self-confidence based on encouragement
- Stage 3: Initiative vs. Guilt
  - **Positive Resolution:** Eagerly explore the environment
- Stage 4: Industry vs. Inferiority
  - **Positive Resolution**: Productive work and successful experiences

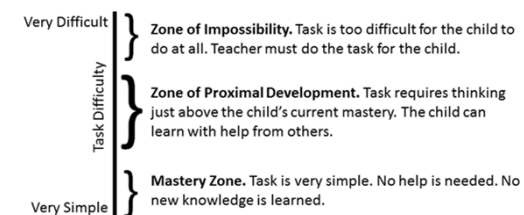## Implications of Erikson's Theory for Education

- Empower students to take initiative in the learning process
- Provide the support that students need to succeed to meet their need for industry
  - Identify each child's unique gifts and build on those for success

Vygotsky's Principles of Development

- Development is studied by examining the process of change
  - The Zone of Proximal Development (ZPD) describes the process of change
- Cognitive development cannot be separated from the culture
  - Socio-cultural Theory of Development

Vygotsky's Sociocultural Theory: Zone of Proximal Development (ZPD)

ZPD: Range of tasks that a child can not do alone but can accomplish when assisted by a more skilled partner

Very Difficult

Zone of Impossibility. Task is too difficult for the child to do at all. Teacher must do the task for the child.

Task Difficulty

Zone of Proximal Development. Task requires thinking just above the child's current mastery. The child can learn with help from others.

Mastery Zone. Task is very simple. No help is needed. No new knowledge is learned.

Very Simple

Zone of Proximal Development (ZPD)

- The ZPD is where real learning is possible because the task is above the child's current level of mastery, but still within reach
  - Instruction should always be aimed at a child's ZPD.
- The ZPD is continually changing as children practice and master new skills

Scaffolding

- To assist in learning within a child's ZPD, the teacher should provide scaffolding
  - **Scaffolding**: Assistance by a more skilled person that allows a child to complete a task they cannot do independently
- Types of Scaffolding
  - Modeling
  - Questions
  - Adapting content or learning materials to children's developmental level

Vygotsky's Sociocultural Theory of Development

- Vygotsky proposed that a child's development is influenced by three things:
  - **Culture**
    - Culture influences the skills and knowledge that children learn
  - **Language**
    - Language enables children to think abstractly and logically
  - **Social Interaction**
    - As a child interacts with people who are more skilled (e.g., parents, teacher, older siblings), the more skilled person provides the scaffolding to help the child master new skills and knowledge

Vygotsky's Sociocultural Theory of Development

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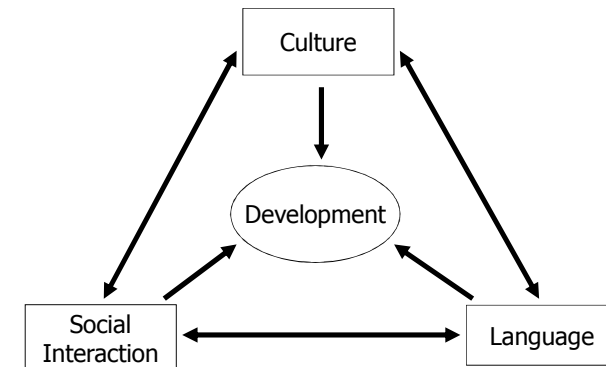
Implications of Vygotsky's Theory for Education

- Learning is a social activity
  - Include much social interaction
- Plan activities within children's ZPD
  - Teach at a level just above students' current understanding
- Use various methods of scaffolding
  - Provide the support students need to bridge this gap
- A silent classroom may not be conducive for learning, particularly for young children