Behaviorism

Behaviorism is an educational theory asserting that behaviors can change as a result of extrinsic motivation such as incentives, rewards and punishments. Behavioral psychology advocates the process of influencing behavior through the systematic adjustments of stimulus-response reinforcement. Behavioral instruction hinges on the use of observable, measurable, and controllable objectives. An educator determines what objectives are met when the learner responds in a certain way.

Emphasizes
- Observable behavior
- Stimulus-response connections
- Behavior controlled by environmental stimuli
- Learned behavior - all behavior based on past experience

Major Principles of Behaviorism
- Learning is the acquisition of new behaviors
- Learning is the process of forming connections between stimulus and response
- Connections followed by a reward or reinforcement are strengthened
- Emphasizes active learning
- Emphasizes the importance of immediate and appropriate reinforcement
- Undesirable behavior is not reinforced
- Knowledge is passive and absolute

Behaviorist Methods
- Make use of specific learning objectives
- Structure lessons in small steps and sequence
- Involve by asking questions
- Provide timely feedback and reinforcement
- Reinforce desirable classroom behaviors with praise

Instructional Applications of Behaviorism
- Shaping behavior
- Task analysis
- Successive approximations
- Modeling or learning by imitation
Cognitivism

Cognitivism is an educational theory that information is more likely acquired, retained, and retrieved for future use if it is learner-constructed, relevant, and built upon prior knowledge. Cognitive psychology concerns the study of individuals’ perceptual processes, problem-solving abilities and reasoning abilities. Cognitivism means “coming to know,” and includes such internal processes as learning, perception, comprehension, thinking, memory, and attention.

**Emphasizes**
- Getting individuals to understand broad concepts, complex structures, and systems (higher order thinking)
- Organization of information
- Way person perceives and conceptualizes world
- Relationships between concepts
- Development of thinking from concrete to abstract
- Either maturation as the means of this development (Piaget) or interactions with environment as a means of developing more complex mental models (Constructivists)
- Intrinsic motivation and motivation to reduce ambiguity
- Readiness

**Major Principles**
- Knowledge is symbolic, mental representation of the mind of the individual.
- Emphasis is on active mental processing or information processing.
- Knowledge is viewed as given and absolute, but formed through experience
- Emphasis is on the process of learning
- Learning is the acquisition of insight and understanding.

**Cognitive Methods**
- Makes use of concept mapping and experiential learning techniques (such as role plays, case studies, simulations, and other problem-centered learning activities.)
- Often organize information in “chunks,” and have built-in or learner-generated memory devices
- Cognitive models give learners control by introducing conceptual frameworks and by relying on both experiential and discovery learning
- Build on previous knowledge (“scaffolding”)
- Self-test and questioning
- Develop meaningful mental structures (“schemata”)

**Instructional Applications**
- Discovery Learning (Bruner)
- Reception Learning (Ausubel)
- Information Processing Model (Rogers)
- Advanced organizers (Ausbel and others)
Constructivism

Constructivism is an educational theory stating that learners do more than absorb and store information. They make tentative interpretations of experience and go on to elaborate and test what they determine. These mental structures are formed, elaborated, and tested until a satisfactory structure is formed. Constructivist theory says that people are active and engage, grapple and seek to make sense of things.

**Emphasizes**

- Preparing the learner to solve problems in ambiguous situations
- Primary concepts, not isolated facts
- Constructing personal meaning
- Collaborative and peer learning
- Developmental-stage appropriate problem-solving, development of human potential and greater self-directedness
- Affective or feelings side of the learning experience
- Self-actualization, development, and understanding

**Major Principles of Constructivism**

- Knowledge is what we make of it
- Learners construct their own understanding and meaning based on their own reality and then validate perspectives through social and cultural negotiations

**Methods**

- Presenting various perspectives
- Social negotiation
- Using actual examples
- Reflective awareness
- Collaborative learning

**Instructional Applications**

- Positive attitudes about students’ abilities to learn
- Instilling meaning, or helping students derive personal meaning
- Student-centered classrooms
- Student-directed learning using case studies and problem solving
- Encouraging climate for learning
- Intrinsic motivation not external rewards
- Students taking active role in process and in own evaluation
- Self-assessment (journals, portfolios, reflective practice)