

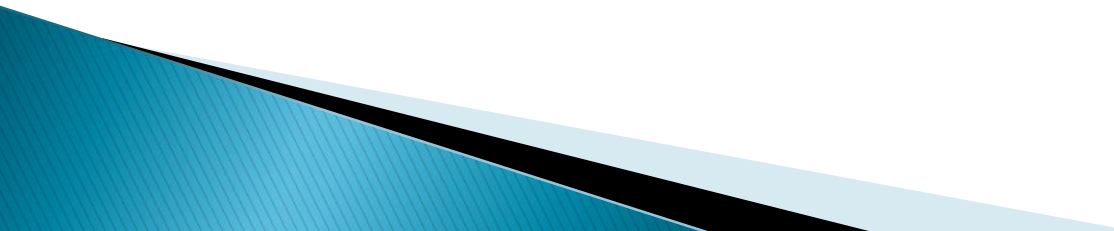
EDUCATIONAL PSYCHOLOGY

- ▶ Supporting Lecturer:
- ▶ **Prof. Dr. Eti Nurhayati, M.Si.**

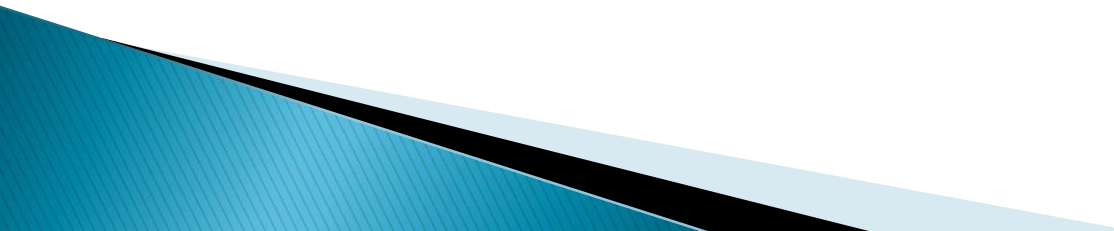
What's Development?

Development is change from conception to death (A to Z)


Human development divided into aspects:

- **Physical development : changes in body structure**
 - **Personal development : changes in personality**
 - **Social development : changes in relates to others**
 - **Cognitive development : changes in thinking**
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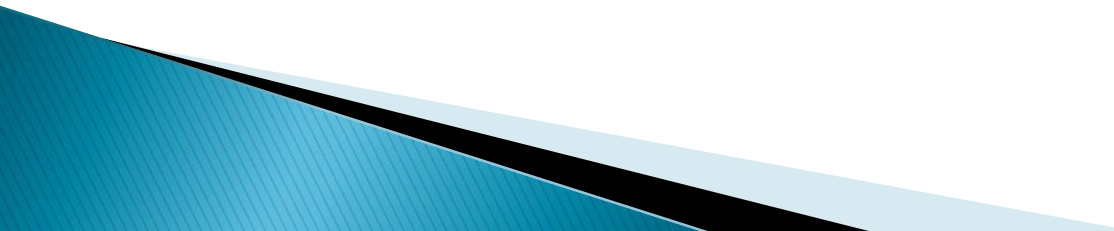
What are principles of Development?

- ▶ People develop at different rates
 - ▶ Development is relatively orderly
 - ▶ Development takes place gradually
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What's Lateralization of Brain?

- ▶ **Lateralization is the specialization of two sides of brain/hemispheres.**
 - ▶ **The right hemisphere in visual and spatial**
 - ▶ **The left hemisphere in language**
 - ▶ **The various parts and system of the brain work together to learns and perform complex activities, ex: reading, speaking, thinking, etc.**
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What are functions of Brain?

- ▶ **Receiving signals from sense organs (such as visual or auditory signals).**
 - ▶ **Controlling voluntary movement**
 - ▶ **Forming associations.**
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Piaget's Cognitive Development

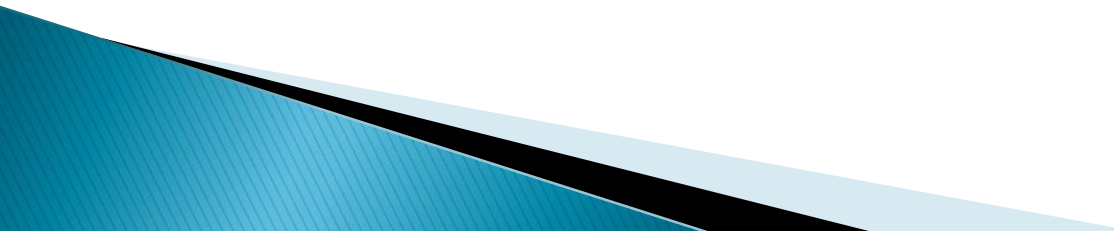
- ▶ Piaget's theory of cognitive development is based on the assumption that people try to make sense of the world and actively create knowledge through direct experience with objects, people, and ideas.
- ▶ Maturation, activity, social transmission, and the need for equilibrium all influence the way thinking processes and knowledge develop.
- ▶ Thinking processes & knowledge: organization of thought (process of arranging info and experience into mental system categories) develop through adaptation (adjustment to the environment) including the complementary processes of assimilation (incorporating new information into existing schemes) and accommodation (changing existing schemes).

Piaget's Stages of Cognitive Development

Sensorimotor Stage (0 – 2 years)

- ▶ **Begins make use of imitation, memory, and thought**
- ▶ **Begins to recognize that objects do not cease to exist when they are hidden.**
- ▶ **Move from reflex actions to goal-directed activity**

Preoperational Stage (2 – 7 years)

- ▶ **Gradually develops use of language and ability to think in symbolic form**
 - ▶ **Able to think operations through logically in one direction**
 - ▶ **Has difficulties seeing another person's point of view.**
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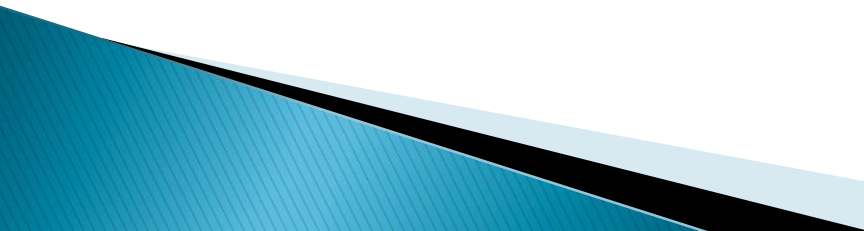
Concrete-operational Stage (7 – 11 years)

- ▶ **Able to solve concrete problems in logical fashion**
- ▶ **Understand laws of conservation and able to classify & seriate**
- ▶ **Understand reversibility**

Formal-operational Stage (11 >)

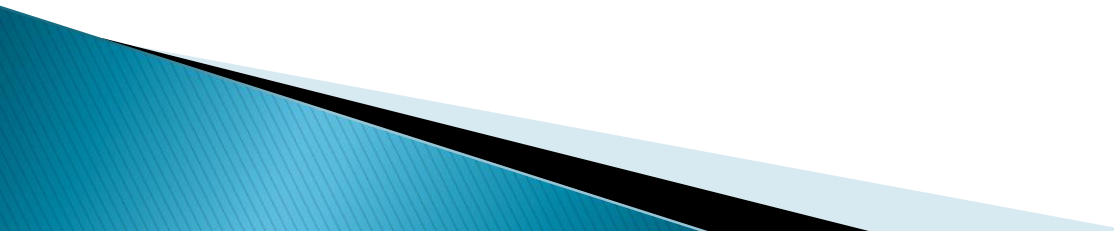
- ▶ **Able to solve abstract problems in logical fashion**
 - ▶ **Becomes more scientific in thinking**
 - ▶ **Develops concerns about social issues, identity.**
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Implications of Piaget's Theory for Teachers

- ▶ **Piaget's fundamental insight was that individuals construct their own understanding: learning is a constructive process.**
 - ▶ **At every level of cognitive development, students must be able to incorporate information into their own schemes. To do this, they must act on the information in some way.**
 - ▶ **This active experience, should include both physical manipulation of objects and mental manipulation of ideas.**
 - ▶ **As a general rule, students should act, manipulate, observe, and then talk or write about what they have experienced.**
 - ▶ **Concrete experiences provide the raw materials for thinking.**
 - ▶ **Communicating with others makes students use, test, and sometimes change their thinking abilities.**
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Vygotsky's Sociocultural Perspective


As children in activities with adults or more capable peers, they exchange ideas and ways of thinking about or representing concepts. These co-created ideas are internalized by children. Thus children's knowledge, ideas, attitudes, and values develop through appropriating “taking for them selves” the ways by their culture and by the more capable members of their group.



Differences Piaget's and Vygotsky's Theory

Aspects	Piaget	Vygotsky
Development significance	Represents an inability to take the perspective of another and engage in reciprocal communication	Represents externalized thought: its function is to communicate with the self for the purpose of self guidance and self-direction
Course of development	Declines with age	Increases at younger ages and then gradually loses its audible quality to become internal verbal thought
Relationship to social speech	Negative: less socially and cognitively mature children use more egocentric	Positive: private speech development out of social interaction with others
Relationship to environmental contexts	-	Increases with task difficulty: private speech serves a helpful self-guiding function in situations where more cognitive effort is needed to reach a solution.

Implications of Vygotsky's Theory for Teachers

- ▶ **Assisted learning or guided participation in the classroom, requires scaffolding-giving information, prompts, reminders, and encouragement at the right time and in the right amounts, and then gradually allowing the students to do more & more on their own.**
 - ▶ **Teachers can assist learning by adapting materials or problems to students' current levels, demonstrating skills or thought processes through the steps of a complicated problems, doing part of the problems, giving detailed feedback and allowing revisions, or asking questions that refocus students' attention.**
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Perbedaan Teori Piaget - Vygotsky

TOPIK	PIAGET	VYGOTSKY
Konteks Sosiokultural	Sosiokultur tidak urgen	Sosiokultur sangat urgen
Konstruktivisme	Konstruktifis Kognitif	Konstruktifis Sosial
Tahapan	Terjadi Tahapan perkembangan kognitif	Tidak ada tahapan perkembangan kognitif
Proses Utama	Skema, adaptasi: asimiliasi, akomodasi, konservasi, klasifikasi, hipotesis-deduktif.	Zone of proximal development, bahasa, dialog, alat dari kultur
Peran Bahasa	Kognisi mengatur bahasa	Bahasa mengatur kognisi
Pandangan ttg Pendidikan	Pendidikan hanya memperbaiki kognitif yg sudah muncul	Pendidikan berperan kuat mengembangkan kognisi
Implikasi Pengajaran	Guru sbg Fasilitator: memberi dukungan mengeksplorasi dunia dan menemukan pengetahuan sendiri.	Guru sbg Fasilitator: memberi kesempatan belajar bersama guru, teman, dan lingkungan.

Erikson's Psychosocial Development

Stages	Age	Important Event	Description
Trust Vs Mistrust	0.0 – 0.18	Feeding	The infant must first form a loving and trusting relationship with the caregiver or develop sense of mistrust
Autonomy Vs Shame & Doubt	0.18 – 3.0	Toilet training	The child's energies are directed toward the development of physical skills, but may develop shame and doubt if not handled well.
Initiative Vs Guilt	3.0 – 6.0	Independence	The child continues to become more assertive to take more initiative but may be too forceful, which can lead to feelings of guilt.

Stages	Age	Important Event	Decription
Industry Vs Inferiroty	6.0 – 12.0	School	The child must deal with demands to learn new skills or risk a sense inferiority, failure, or incompetence.
Identity Vs Role Confusion	Adolescence	Peer relationships	The teenagers must achieve identity in occupation, gender roles, politics, and religion, or role confusion.
Intimacy Vs Isolation	Young Adulthood	Love relationships	The young adult must develop intimate relationships or suffer feelings of isolation.
Generativity Vs Stagnation	Middle Adulthood	Parenting	Each adult must find some way to satisfy and support the next generation
Integrity Vs Despair	Late Adulthood	Reflection & acceptance of one’s life	The culmination is a sense of acceptance of oneself as one is and a sense of fulfilment.

Kohlberg's Moral Development

Stages	Age	Characteristics	Description
Preconvention	2.0 – 4.0	Punishment – Obedience Orientation	A good or bad action is determined by its physical consequences
	4.0 – 7.0	Personal Reward Orientation	Personal needs determine right and wrong
Conventional	7.0 – 9.0	Good Boy/Girls Orientation	It is determined what pleases, aids, and approved by others
	9.0 – 11.0	Law & other Orientation	Authority must be respected and social order maintained
Postconvention	11.0 – 15.0	Social contract Orientation	Good is determined by socially agreed upon standards of individual right
	16.0 >	Universal Ethical Principle Orientation	Good and right are matters of conscience : abstract concept of justice, human dignity, equality.

Multicultural Education

1. Content integration

Using examples & content from a variety of cultures to illustrate key concepts, principles, generalizations, and theories.

2. The knowledge construction process

Helping students understand how knowledge is influenced by beliefs

3. An equality pedagogy

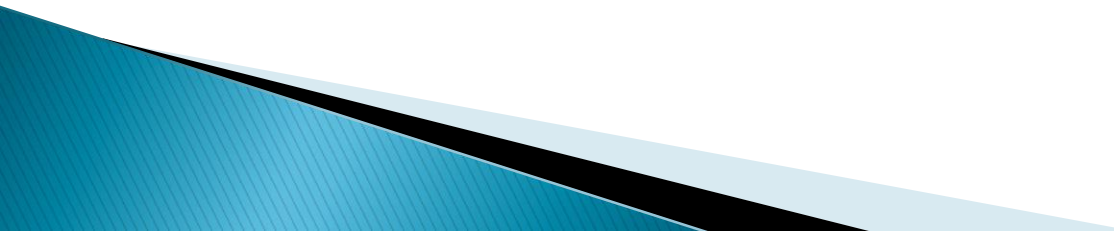
Using teaching methods that reach all students.

4. Prejudice Reduction

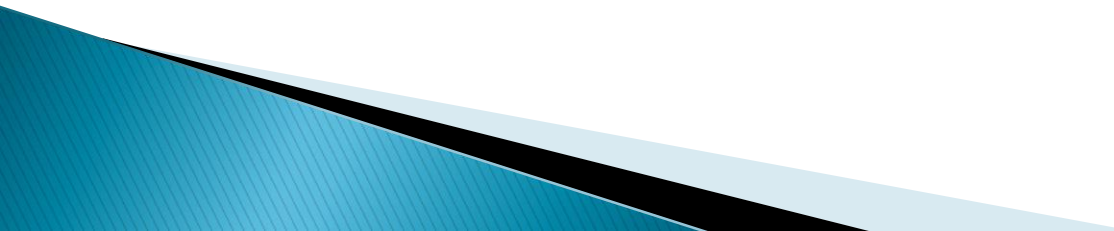
Identifying the characteristics of students' racial attitudes & determining how they can be modified by teaching

5. Empowering school culture & social structure

Creating social structures in school that support learning and dev for all students



Strategy of Multicultural Education Practice

- ▶ Jigsaw class method
 - ▶ Develop of perspectives
 - ▶ Creative thinking development
 - ▶ Emotional intelligence development
 - ▶ Teaching tolerance
 - ▶ Reduction bias, prejudice, and discrimination
 - ▶ Team work/collaboration, not comparative and not competitive within group.
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ECOLOGICAL THEORY



MICRO SYSTEM

Parent, Family, Peers, School, Neighbor



MESOSYSTEM

School, Religious Institution, Peers, Childcare facility



ECOSYSTEM

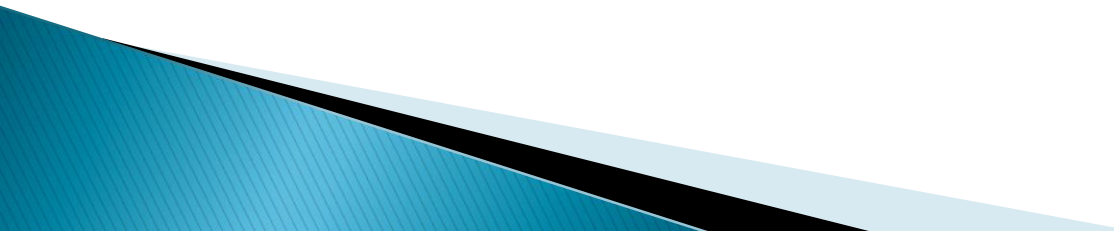
Extended family members, School board, Government, Health, Social, TV, Industry, Service Agencies



MACROSYSTEM

Dominant Believes, Cultural value, Attitudes, Ideologies

SES & ACHIEVEMENT

- ▶ Poor health –care
 - ▶ Low expectations – low self esteem
 - ▶ Learned helplessness
 - ▶ Peer influences & resistance cultures
 - ▶ Tracking: assignment to differences classes and academic experiences based on achievement
 - ▶ Child–rearing styles
 - ▶ Home environment and Resources
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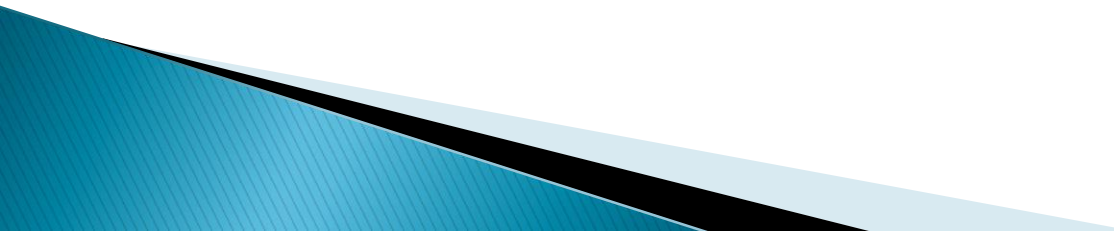
The Changing Demographics

- ▶ Cultural conflict
- ▶ Cultural compatibility

The Legacy of Discrimination

1. Ethnic & Racial Differences
2. Continuing discrimination

Culturally Relevant Pedagogy

- ▶ Help students experience academic success
 - ▶ Develop student's cultural competence
 - ▶ Help students develop critical consciousness to challenge the status quo.
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Parenting Style(Baumrind)

		Demandingness	
		H	L
Responsiveness	H	Authoritative	Indulgent
	L	Authoritarian	Indifferent

Identity Formation(Marcia)

Commitment

H

L

H

Achievement

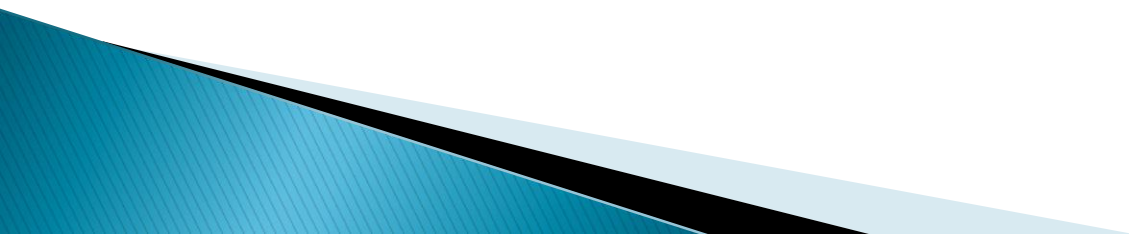
Moratorium

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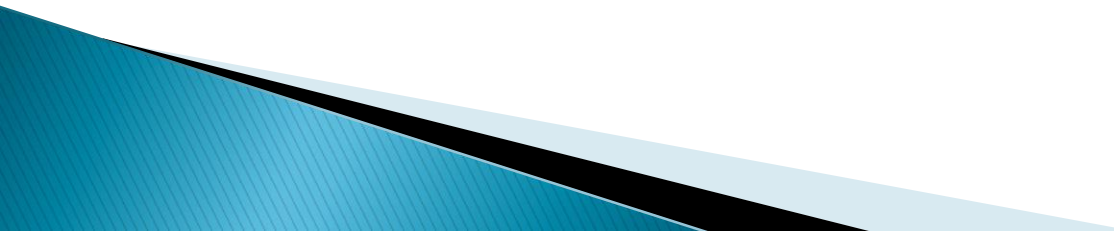
Foreclosure

Confusion

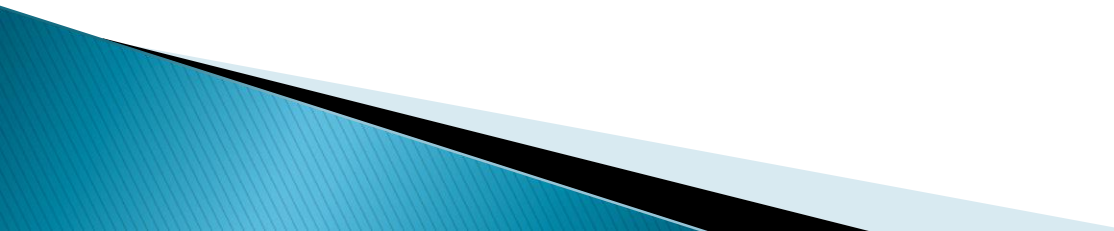
Exploration



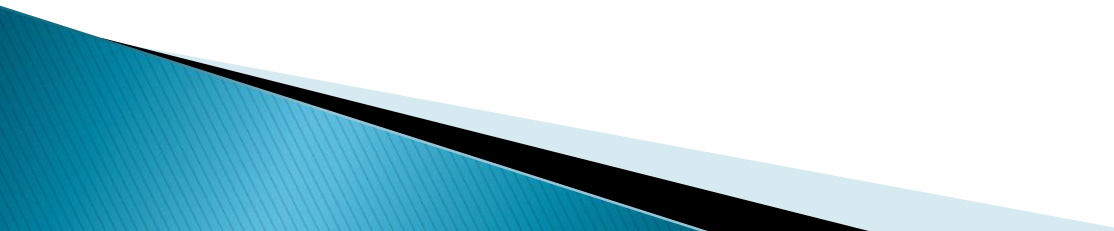
What is Learning?

- ▶ Learning is the modification of behavior through experience and training (Gates, et al; 1954:288).
 - ▶ Learning is an active process that need to be stimulated and guided toward desirable outcome.
 - ▶ Learning is the acquisition of habits, knowledge, and attitudes (Crow & Crow, 1958:225).
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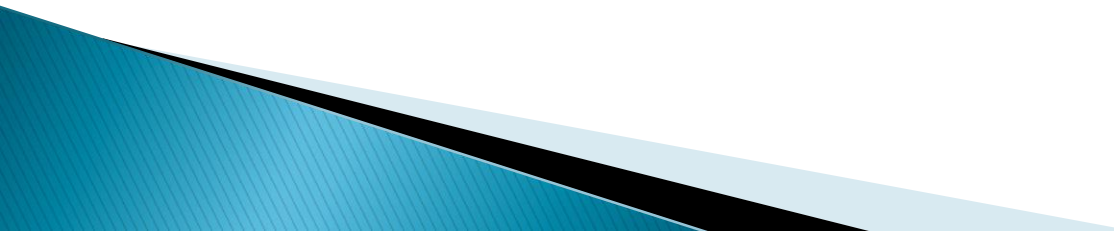
What is Learning?

- ▶ Learning as a relatively permanent change in behavioral potentiality that occurs as a result of reinforced practice (Kimble in Hergenhahn, 1982:3).
 - ▶ Learning is a process through which experience causes permanent change in a person's knowledge or behaviour (Woolfolk, et.al., 227).
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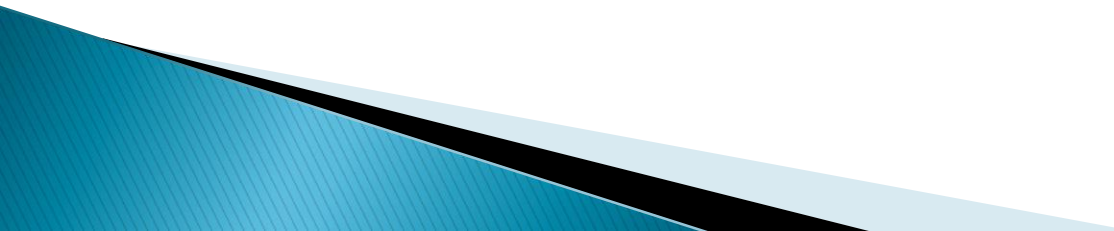
Learning in Behaviourism

- ▶ Behavioural learning theories: explanations of learning that focus on external events as the cause of changes in observable behaviour.
 - ▶ Behavioural theorists emphasize the role of environmental stimuli in learning and focus on behaviour that is observable responses.
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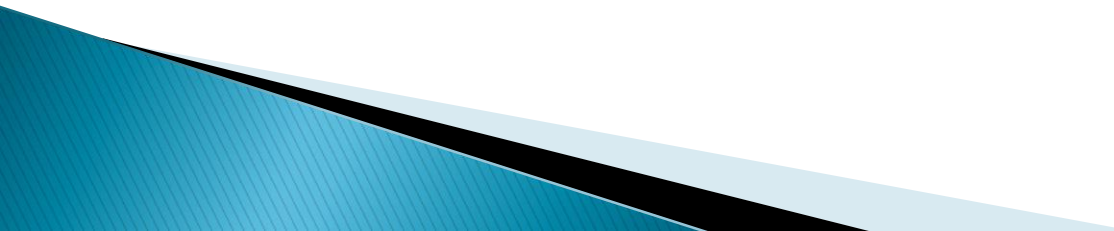
Comparing Cognitive & Behavioural Views:

- ▶ Cognitive learning theorists focus on the human mind's active attempts to make sense of the world.
 - ▶ In Cognitive view, knowledge is learned, and changes in knowledge make changes in behaviour possible.
 - ▶ In the Behavioural view, the new behaviour itself is learned.
 - ▶ Both Behavioural and Cognitive theorists believe that reinforcement is important in learning, but for different reasons. Behaviourists view that reinforcement as strengthens responses, but cognitive view reinforcement as a source of feedback and information.
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Behaviouristic Learning Theory

1. E.L. Thorndike : The Law of Effect, The Law of exercise (S – R bond)
 2. Ivan Pavlov : Classical Conditioning: S – R (S reinforced)
 3. Skinner : Operant Conditioning: S – R (R reinforced)
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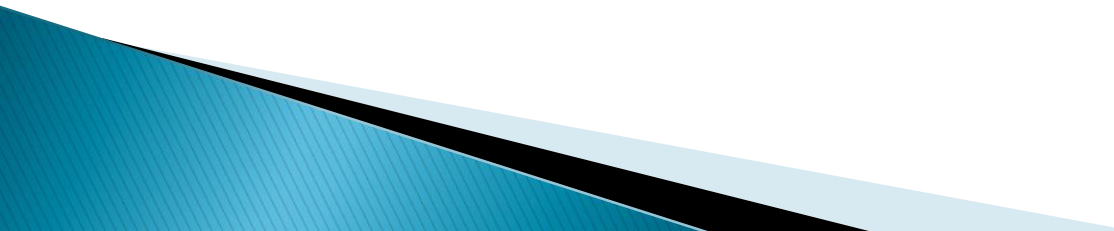
Methods for Encouraging Behaviour

1. Reinforcing with Teacher attention
 2. Selecting Reinforcers.
 3. Shaping: reinforcing each small step of progress toward a desired goal of behaviour.
 4. Positive practice: practising correct responses immediately after errors.
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Coping with Undesirable Behaviour

- ❑ **Negative reinforcement:** is always associated with increase in behaviour.
 - ❑ **Satiation/positive reinforcement:** requiring a person to repeat problem behaviour past the point of interest or motivation.
 - ❑ **Reprimands.** Criticisms for misbehaviour, rebukes.
 - ❑ **Response cost:** reward and punishment.
 - ❑ **Social isolation:** removal of a disruptive students for 5 to 10 minutes.
 - ❑ **Some cautions:** process that weakens or suppresses behaviour).
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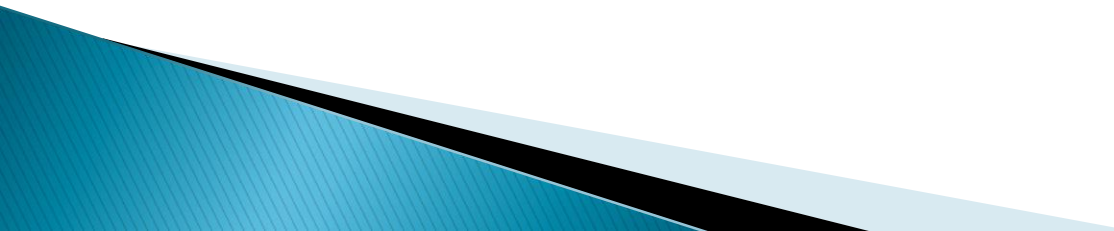
Behavioural Approaches to Teaching

1. **Mastery Learning:** Every student is capable of achieving most of the objectives if given enough time and proper instruction.
 2. **Group Consequences:** Reinforcers or punishments given to a class as a whole for adhering to or violating rules of conduct
 3. **Reinforcement Programs:** Programs in which tokens earned for both academic work and positive classroom behaviour can be exchanged for some desired reward.
 4. **Contract Program:** A formal agreement, often written and signed, between the teacher and an individual student specifying what the student must do to earn a particular privilege or reward.
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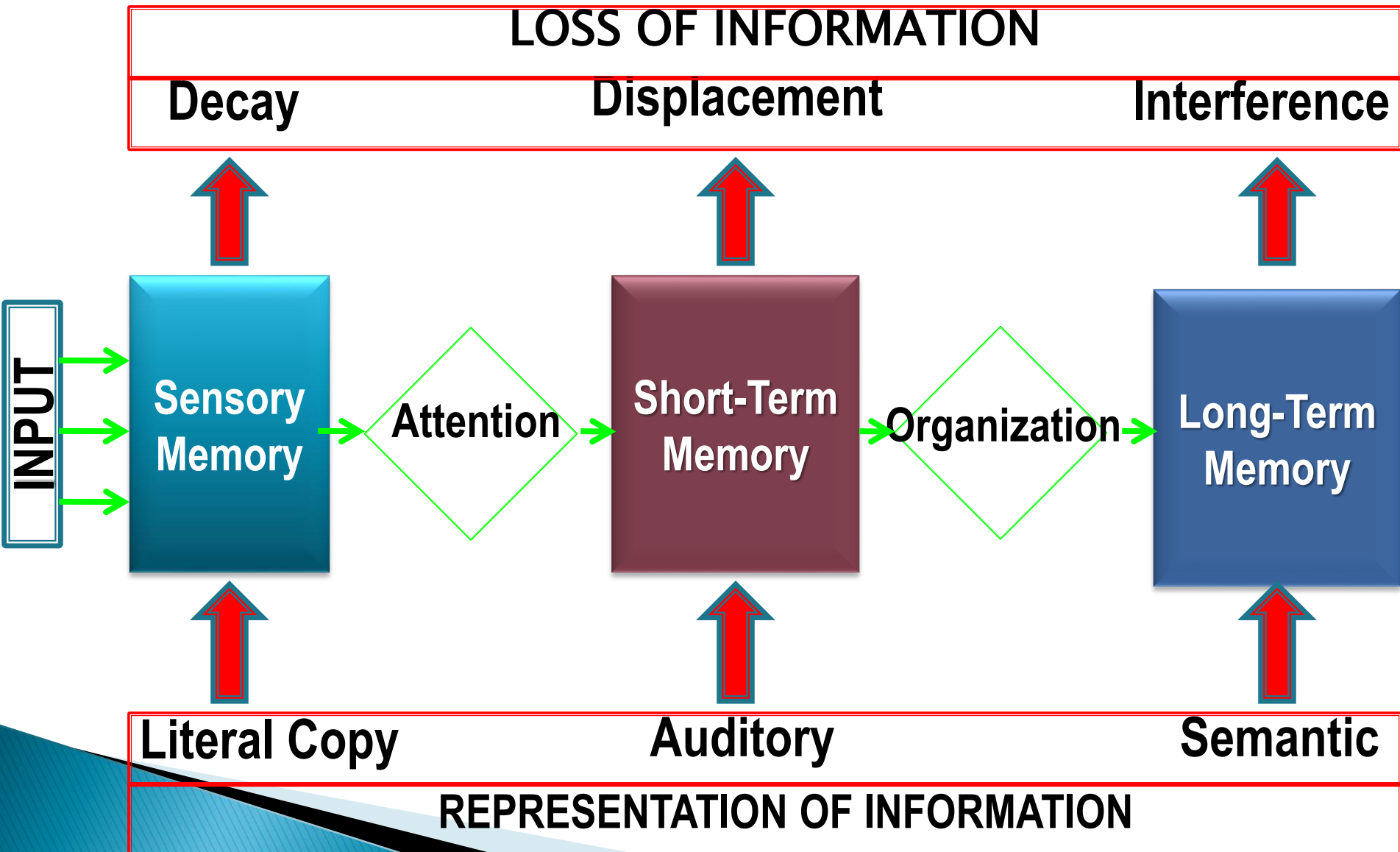
Recent Approaches:

- ▶ **Self-management.** Use of behavioural learning principles to change one's behaviour by using *goal setting, monitoring and evaluating progress, self-reinforcement*.
 - ▶ **Cognitive behaviour modification.** Procedures based on both behavioural and cognitive learning principles for changing one's own behaviour by using *self-talk* and *self-instruction*.
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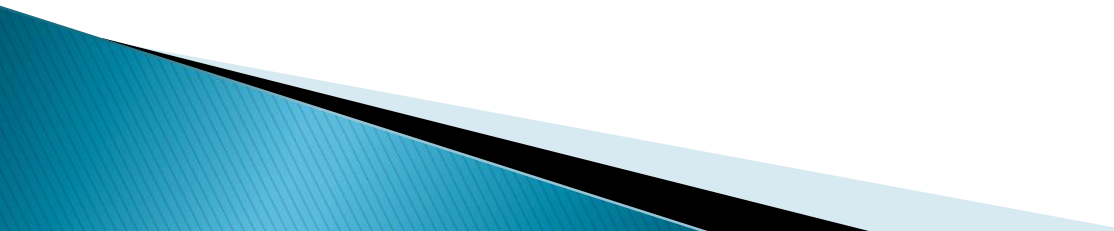
The Importance of Knowledge in Learning

- ▶ **Knowledge:** subject or domain understandings (math, music, etc.) and cognitive abilities (planning, solving problems, reading, comprehension, etc.).
 - ▶ **General knowledge:** info that is useful in many different kinds of task, info that applies to many situation.
 - ▶ **Specific knowledge:** info that is useful in a particular situation or apply only one topic.
 - ▶ **Declarative knowledge:** “knowing that something”.
 - ▶ **Procedural knowledge:** “knowing how”.
 - ▶ **Conditional knowledge:** “knowing when and why”.
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INFORMATION PROCESSING THEORY



Memory Improvement

- ▶ Mnemonic: (1) repetition, (2) sentence reading, (3) sentence generation, (4) imagery.
 - ▶ Method of Loci: (a) visualizing, (b) represent item to remember; (c) associating the items.
 - ▶ Organization
 - ▶ External memory aids.
 - ▶ Practice
 - ▶ Multimodal approach
 - ▶ Metamemory
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COMPARING SM,STM,LTM

Aspects	Sensory Memory	Short-Term Memory	Long-Term Memory
Capacity	limited	Limited (7 ± 2 chunks)	Practically unlimited
Duration	1 – 3 seconds (depend on encoding and accuracy)	5–30 seconds (depend on attention, anxiety, and mood)	Practically unlimited (depend on representation, organization, expertise)
Content	<ul style="list-style-type: none"> ➤ Iconic memory, ➤ Echoic memory <p>Words, images, ideas, sentences</p>	<ul style="list-style-type: none"> ➤ Primary Memory ➤ Secondary memory <p>Perception, abstract, meaning, context.</p>	<ul style="list-style-type: none"> ➤ Declarative: episodic, semantic. ➤ Procedural ➤ Flashbulb memory <p>Propositional, networks, schemas, episodes, images.</p>

Aspect	Behaviorism	Cognitivism	Humanism	Social Learning
Learning theorists	Thorndike, Pavlov, Watson, Skinner	Piaget, Vygotsky Bloom, Broodband	Maslow, Rogers, Freire	Bandura, Lave and Wenger, Solomon
View of the learning process	Change in behavior	Internal mental process (information processing, memory, perception, insight)	A personal act to fulfill potential.	Interaction, observation in social contexts,
Locus of learning	Stimuli in external environment	Internal cognitive structuring	Affective and cognitive needs	Learning is in relationship between people–environment.
Purpose in education	Produce behavioral change in desired direction	Develop capacity and skills to learn better	Become self–actualized, autonomous	Full participation in communities of practice, learning to life together
Educator's role	An actor, a central figure. “Teacher’s centered”	An Organizer structures content of learning activity. “Student’s mind centered”.	A Facilitator development of the whole person. “Student’s learning activity centered”.	A motivator that work & participative with students. “Interaction students and environment centered” .
Manifestations in adult learning	Behavioral based education. Skill dev & training	Cognitive dev, intelligence, memory, learning how to learn	Andragogy, self–directed learning, participation learning	Socialization, social participation, association, conversation