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**Mechanism of Cognitive Development**  

**Stages of Cognitive Development**  

- **Pre operational stage (2–6 or 7 years)**  
  - Symbolic function sub-stage  
  - Intuitive thought sub-stage  

- **Concrete operational stage (6 or 7 years to 11 or 12 years)**  
  - Conservation  
  - Reversibility  
  - Compensation  
  - Classification  
  - Class inclusion  
  - Seriation  
  - Deductive reasoning  

**Factors Affecting Cognitive Development**  

**Developing Thinking**  

**Need and Justification of Developing Thinking Skills**  

**Thinking Skills Development Programs**  

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Approaches for Developing Thinking Skills

Infusion approaches

Across the curriculum infusion approaches

Thinking skills embedded in particular subject or domain

Enrichment approaches

Instrumental Enrichment (IE)

Somerset Thinking Skills Course

Cognitive Research Trust (CoRT) — de Bono

Philosophy for Children (P4C)

Cognitive Acceleration

Conceptual Framework of Cognitive Acceleration

Pillars of Cognitive Acceleration

Schema theory

Density and duration

Concrete preparation

Cognitive conflict (cognitive challenge)

Social construction

Meta cognition

Bridging

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Effect of Cognitive Acceleration on Age and Gender

Developing Thinking Skill of Early School Children

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CHAPTER V: Discussion and Recommendations

Answer to Research Questions

Answer to research question 1: Effect of science activities on the development of the schema addressed in intervention program (spatial perception)

Answer to research question 2: Effect of science activities on the development of the schema other than those addressed in the intervention program (conservation)

School wise comparison

School 1

School 2

School 3

Answer to the research question 3: Effect of science activities on the development of thinking skills of children of public and private sector schools

Drawing test

Conservation test

Answer to the research question 4: Effect of science activities on the development of thinking skills of boys and girls

Drawing test

Conservation test

Answer to the research question 5: Effect of science activities on the children of different age

Drawing test

Conservation test