
LEARNING GUIDE

CONSERVATION

PIAGET'S DEVELOPMENTAL THEORY

(29 Minutes)



DAVIDSON *films*

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INTRODUCTION

This video deals with a range of children from age 6 to age 12. One of the ways Jean Piaget studied the development of cognition was with “conservation” tasks. Conservation in the Piagetian sense refers to the ability to keep track of what stays the same in a system despite some changes. Children are presented with challenges in the areas of the conservation of volume (liquids and blocks), length, and area.

The tasks are presented by Robert Karplus and Celia Stendler Lavatelli.

Introduction

This video deals with three modes of reasoning:

- *Sensimotor* (Roughly ages 2 to age 5)
- *Concrete Operations* (Roughly 6 to 12)
- *Formal Operations* (Roughly age 12 on)

Conservation: Keeping in mind what stays the same in a system when there is a transformation to it. One relies on logic and not on perception. One is able to reverse the transformation mentally and understands compensation.)

Conservation of liquids

- Children who have can use concrete operations for this task, can overcome their perceptions and mentally reverse the transformation.
- Pre-operational children base their judgements on perceptions alone

Conservation of length

- Conservation is not consistent across tasks. A child can be able to conserve the volume of liquids but not length.
- The task involves being able to reverse operations and to use the associative principle of the combination of parts.

Conservation of area

- The *associative principle*: rearranging parts does not change the whole
- The child who is pre-operational for this task is swayed by perception

Transition to formal operations

- Conservation of liquid: displacement

Piaget was interested in the reasoning of a child, not his knowledge base-
the boy corrects himself on the task

The girl is unable to separate the two factors: weight and quantity of liquid
and thus cannot explain the results

- Conservation of volume: blocks

A child *pre-operational* for this task would build a tower of the same
height. (This is not shown in the video.) Bases thinking on perceptions.

The girl who is *concrete operational* for this task knows the tower should
be higher (has the ability to compensate) but cannot mentally envision the
tower as made of small cubes.

The boy who operates with *formal operations* on this task is able to think
abstractly which is one of the key elements of formal operations.

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MORALITY: JUDGMENTS AND ACTION (2002) 32 minutes

*This video is part of the **Classic Piaget** collection.*

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Classic Piaget Collection Volume 1:

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