

SOCIO- CULTURAL, HISTORICAL APPROACHES:
METHODOLOGICAL PROSPECTS
AND
PEDAGOGIC EXTENSIONS
IN EARLY CHILDHOOD EDUCATION

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Theoretical Framework

- In recent years, the “socio-cultural, historical approach” is viewed as a considerably **dynamic tool** for **a holistic and in-depth approach** of conceptual evolution and learning.
- Within this rich and multidimensional theoretical framework, the conceptual principles of **psychological, scientific and educational research** are redefined and expanded.

Theoretical Framework

In the field of **Early Childhood Science Education Research**

focus is gradually and constantly moving towards utilization of:

**theoretical principles
&
methodology tools**

based on “socio-cultural, historical approach” at the level of research organization & design, data gathering & data analysis.

(O’ Loughlin, 1992; Lemke, 2001; Fler, 2002a, 2002b, 2011; Fler & Robbins, 2003, 2004; Robbins, 2005a, 2005b, 2007, 2009; Hedegaard & Fler, 2008; Larsson, 2013)

Research Motivation

As involvement in this field deepens, our research interest is focused on the following questions:

- Do we perceive, in its **entire dimension**, the conceptual principles, views and prospects of the “socio-cultural, historical” theory?
- Through which **research choices** and **methodological practices** can we acquire access to richer and more practical/realistic, experience data?
- How can we support the organization of more **“authentic” learning incidents** in order to support children’s **“intension” to learn**, aiming to a more **dynamic and substantive early childhood education**?

Research Focus

- To response to the challenges that sociocultural, historical approach pose at **Early Childhood Science Education**
- To approach young children's thinking about concepts and phenomena from the natural world through **a multilayer qualitative plane of analysis**
- To focus analysis on the **interpersonal plane** by mapping the transmission course of thinking from the interpersonal to the personal level
- To detect and analyze the **contextual factors** that mediate in this process

Aim & Object of Research

- Re-approaching research procedures of **detecting** kindergarten children **conceptions** about concepts and phenomena from the natural world
- Using methodological tools from the theoretical field of socio-cultural, historical approach for:
 - ✓ **data gathering**
 - &
 - ✓ **data analysis**
- Focusing on the thematic area of how kinder-garden children comprehend the **natural phenomenon of clouds** (creation, movement, correlation with every day knowledge)

Pilot Research

- ✓ While young children **wonder**, at personal or/and collective level, and **discourse** about natural concepts & phenomena, they structure and form plurality of ideas & explanatory schemes
- ✓ The way that they handle, (re) structure and form these ideas and schemes varies, depending on the **interpersonal circumstances**
- ✓ Significant parameters which mediate at children's everyday concepts formation arise from **a multi layer analysis**

Research Questions

1. How early childhood children **comprehend** the natural phenomenon of clouds?
2. How do they **handle, (re) structure and form their related explanatory schemes** interacting with other children?
3. How can we **map the transition course of their thinking** from the interpersonal to the personal level and vice versa?
4. Which are the **personal, interpersonal and contextual factors** that are involved in this process?
5. Which are the **characteristics and the role** of the contextual factors?
6. Which are the **pedagogic/ didactical extensions** at the field of Early Childhood Science Education?

Sample

- One hundred (**100**) Early Childhood Children
- four (**4**) to six (**6**) years old
- seven (**7**) public kindergarten schools
- in an **urban area** of Greece
- supported by seven (**7**) early childhood educators instructed on the basic principles of “socio-cultural, historical approach”

Research Design

Early Childhood Educators

We structured, instruct and support a small early childhood educators network according to:

- the basic **principles** of “socio-cultural, historical approach”
- some of its **extensions** at the procedures of detecting children’s conceptions

Early Childhood Children

We support a “conversational approach” between:

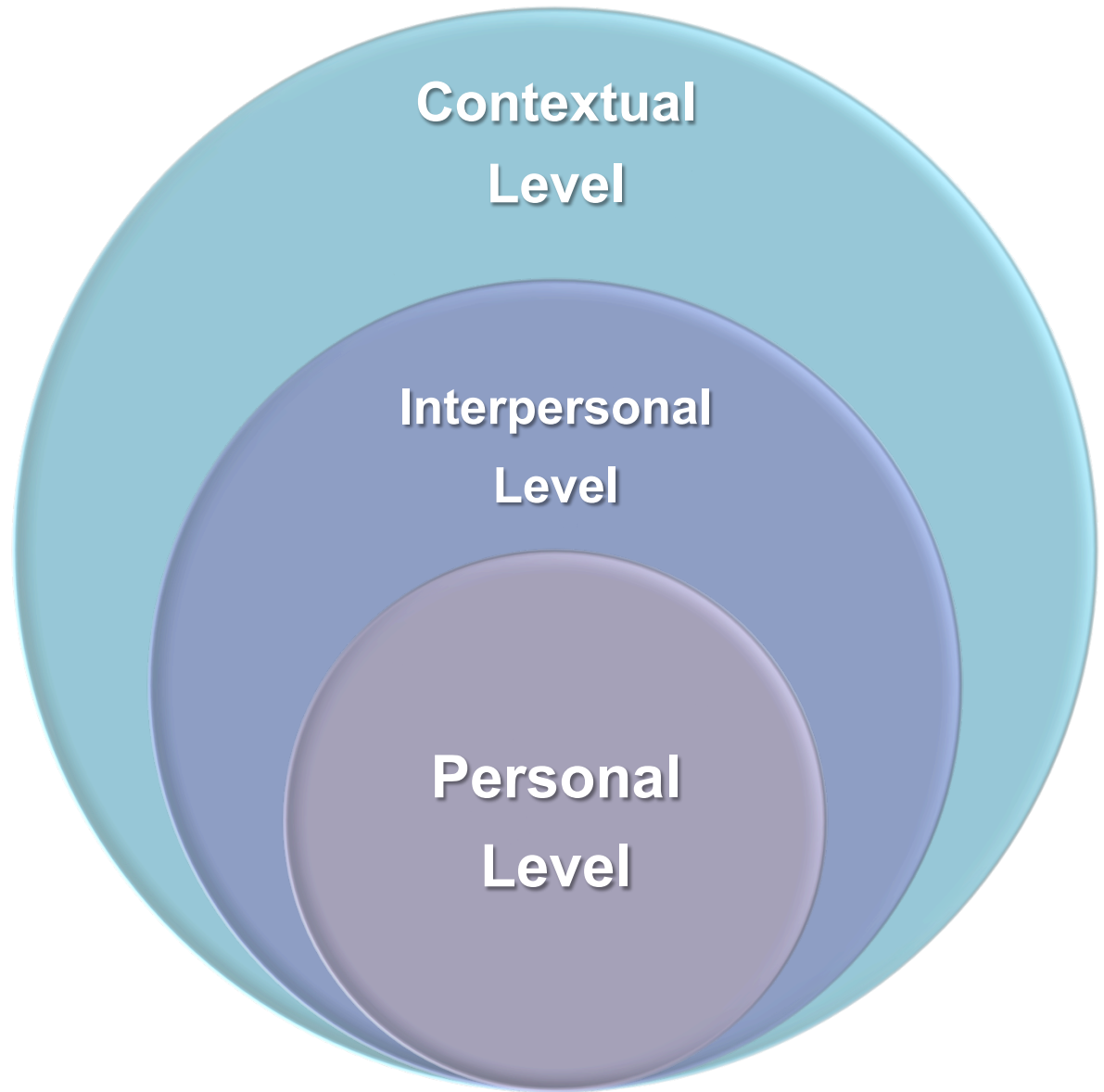
- **one child** & the educator
- **a pair** of children & the educator
- a pair of children, in **different combination**, & the educator
- **a four children team** & the educator

Drawings



Results Analysis

We based our
analysis on
Rogoff's
**“three foci
plane of
analysis”**
(1998)



Results Analysis

We
attempt

An analysis of children's **dialogues, behavior** and **reactions**

A **comparative consideration** of the explanatory schemes that they theorized into different social circumstances

A designation of which & how cultural and historical **elements and tools intercede** in young children's thinking about natural concepts & phenomena

Prospects

Theoretical Level

- **enrich & delve into** conceptual principles, views and prospects in order to get a better understanding of the **complexity** of children's thinking

Empirical Level

- highlight the important **research & methodological potentials** of the “sociocultural- historical approach”

Pedagogical Level

- **designate and enroll** educational elements hidden in the background
- organize more authentic & dynamic learning situations **reevaluating some parameters**

Main Purpose

- To approach:

not just the “individual” but the **“individual- in- action”**
(Carr, 1998)

- To get an access:

not only to children’s knowledge
but also to their course of action
“towards and through knowledge”
(Rogoff, 1998)

Questions & Difficulties

- ✓ *Which specific aspect of Vygotsky's theory and the broader cultural-historical research tradition can we use as **an analytical tool**?*
- ✓ *In what ways can we **extend our methodological framework of analysis** at the basis of Rogoff's plane?*
- ✓ *Which are **the most dynamic** cultural and historical elements and tools to focus on?*
- The research dynamic of the “socio-cultural, historical approach” is not widely accepted and adopted in the Greek academic/research community.



Thank you for your attention

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