

**Mediated Learning Strategies, Discourse Components and  
Cognitive Modifiability in Kindergarten Teacher-Child and  
Mother-Child Interactions**

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## Abstract

During the last four decades, many studies of learning and teaching which are based on the Social-Interactive theory (Vygotsky, 1978) and the Mediation Learning Experience theory - MLE (Feuerstein, Rand & Hoffman, 1979) were conducted. These studies unambiguously proved that the quality of mediated interaction has high predictive ability of learning ability, cognitive functioning, interpersonal and social skills ( Klein & Aloni,1993; Klein,1996; Tzuriel, 1999). This study focuses on the effects of mediated learning strategies and language discourse of mothers and kindergarten teachers on children's cognitive modifiability.

The present study has three goals:

The First - To investigate whether mothers and kindergarten teachers will show different patterns of MLE strategies when teaching children a story versus and solving analogies.

The Second - To investigate whether mothers and kindergarten teachers will show different patterns of discourse when teaching children a story versus and solving analogies.

The third – to investigate the prediction of children's cognitive modifiability by kindergarten teachers' MLE strategies and discourse components.

The mediated interactions were based on the principles of Observation of Mediation Interaction - OMI ( Klein, Weider & Greenspan 1987). The methods were the CATM (Tzuriel & Klein,1987) & CMB battery ( Tzuriel, 1998). The CATM examined the mediated interaction between mothers and children solving analogies. The CMB battery examined the mediated interaction between kindergarten teachers and children solving analogies. Another method to examine the interaction between mothers and children and between kindergarten teachers and children was to compose a story versus based on a series of pictures.

The study population: 42 kinder garden teachers, 100 mothers and 200 children. All interactions were filmed and documented by video.

The mediated interactions were analyzed by five principles of the OMI, based on MLE, the discourse components were analyzed by questions, linguistic and procedures of the discourse.

The first study results show significant differences between mothers and kindergarten teachers mediated interaction. The mediation level of the kindergarten garden teachers was higher than the mothers' in the process of solving analogies and during composing story versus based on series of pictures. One of the discourse components that facilitate learning is questions that stimulate thinking to search for a reason, and argumentation ability as a process of problem solving. The kindergarten teachers focused on open, substantive, subversive and test questions to examine content and knowledge among the children, whereas the mothers asked more rhetorical, test questions and scaffolding during composing story versus based on series of pictures. Differences were found in the linguistic and the Para-linguistic components and in the principles of the OMI based on the MLE. The study found that the kindergarten teachers mediated to transcendence and sense ability higher than mothers, these two strategies are significant and influence on the learning and thinking abilities, one of which broadens the cognitive ability and the other empowers emotionally and encourages the child. In the cognitive aspect, the child looks for connections and embeds insights on relationship between cause and effect, creates generalizations and linkages between concepts and facts. On the personal emotional aspect, the child develops ability to cope with challenges and unfamiliar situations. Among the mothers the most prominent strategy during the mediation was mediation for meaning that contributed to the learning experience and empowered its value.

The second study results show efficient mediated interactions which promote the thinking and cognitive modifiability of the children. the kindergarten teachers mediated more to intentionally and reciprocity and meaning. The more the kindergarten teachers mediated to transcendence and sense ability, the higher children's cognitive modifiability was exposed.

The main contribution of the present study is the combining of several research methods as a practice in learning processes. the implementation of the MLE theory using dynamic assessment can promote high level thinking, cognitive functions, and learning ability.