

**A VYGOTSKIAN PERSPECTIVE ON PROMOTING
CRITICAL THINKING IN YOUNG CHILDREN
THROUGH MOTHER-CHILD INTERACTIONS**

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DECLARATION

I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at a tertiary education institution

Julia Suleeman Chandra

*Children are gifts from God. They are given to us so that we can offer them a safe,
loving place to grow to inner and outer freedom.*

(Henri J. M. Nouwen in "Here and Now")

LIST OF PUBLICATIONS

Aspects of this thesis have been previously published in the following documents:

Chandra, J. S. (2001, December). *Maternal teaching strategies as predictors of young children's critical thinking*. Paper presented at the annual conference of the Australian Association for Research in Education, Fremantle, Western Australia. (Retrieved January 15, 2002 from <http://www.aare.edu.au/01pap/cha01320.html>)

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ABSTRACT

This thesis examines how mothers, as primary caretakers, might promote the development of critical thinking of their 4- and 5-year-olds. Interest in critical thinking in very young children can be traced back to the early years of the 20th century with views expressed by philosophers such as John Dewey and John Stuart Mill that were in favour of giving young children opportunities that might encourage their free expression and inquiring, critical nature in the school context. Educators like Froebel and Montessori who developed programs for kindergartens worked on similar assumptions. However, how the home environment especially maternal support might foster the development of critical thinking in young children has received only minimal attention. The rise of the critical thinking movement in the 1970s enhanced the conceptualization of critical thinking, and how to assess the critical thinking ability. But studies of the precursors of critical thinking in young children received only minimal attention.

Two theoretical perspectives, the constructivist and the socio-cultural, represented by their most authoritative figures, Piaget and Vygotsky, respectively, have provided the conceptual basis for this research. While Piaget viewed children's cognition as developing through active construction while dealing with concrete, practical problems, Vygotsky considered children's cognitive development as evolving through the internalization of interactions with more able people in their immediate environment. In this thesis, Piaget's approach to investigating children's higher thinking processes was applied to the design of tasks that assessed critical thinking features in very young children whilst Vygotsky's notion of the zone of proximal development was used to design the overall intervention program to develop very young children's critical thinking through meaningful interactions with their mothers.

How critical thinking in young children might develop through mothers' interaction strategies was investigated in the context of Indonesian participants in their home settings. In that cultural context, critical thinking is not nurtured, and even children's curiosity is often regarded as irritating by adults. The challenge for this study, therefore, was to design a program that would challenge the mothers' personal and cultural assumptions and to empower them to support the development of critical thinking in their young children. The effectiveness of the intervention was evaluated against whether and, if so, how the children's precursors of critical thinking improved

across the intervention period.

The main contributions this study was expected to make are: (1) advance the conceptualization of the nature of critical thinking in very young children (2) develop and test innovative methods to identify the features of critical thinking in very young children; and (3) identifying how mothers, having been empowered through the metacognitive program, may promote the development of critical thinking in very young children.

The nature of critical thinking in very young children was operationalised through two different assessment methods specifically developed for this purpose. One was a dynamic qualitative assessment where each child interacted with his or her mother in a teaching-learning setting. The other consisted of a series of quantitative, Piagetian-like assessments, using play settings. The research used a pre- and post-intervention control group design in order to allow for comparisons both within-subjects, across the intervention period, and between-subjects as another group of mother-child pairs served as control receiving no intervention.

The findings revealed that very young children are able to show precursors of critical thinking consisting of both cognitive and affective elements, such as questioning, authentication, moral reasoning, and appropriate emotion. Features indicating inhibitors of critical thinking (such as passivity and over-compliance) were also found. Through the intervention program, the experimental group mothers learned to notice, encourage and support children's attempts at inquiry as the children grappled with making sense of their environment. Although the precursors of critical thinking identified before the intervention continued to develop over time due to maturation (as shown by the performance of the control group children), the experimental group children performed even better over time. In addition, the mothers of children with better performance in critical thinking tasks were observed to emphasize informing and reasoning, and to enjoy interacting with their children, rather than pressuring or commanding them.

This research has highlighted conceptual and methodological issues in identifying and assessing very young children's critical thinking, as well as the educational implications for the promotion of children's critical thinking at home and in schools through similar metacognitive programs for parents and teachers. More research into the assessment of very young children's critical thinking in different settings and with persons other than mothers is indicated, as is a focus on other factors that may influence the development of critical thinking.

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