

Recent Studies and Practices of the Montessori Educational Method : Ten Years from 1979 on the DIALOG Data-Base

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Abstract

I review recent practices and studies of the Montessori method from 1979 and intend to discover some tasks for future studies.

I researched fourteen files in the DIALOG data-base, and tried to find papers from 1979 using the key word "MONTESSORI".

Sixty-seven titles of books and papers were output from the DIALOG data-base. I classified them into five large groups. Each large group was further divided into small groups. The following are these large groups, with the numbers of books and papers contained in each large group shown in parentheses.

1. Studies which compared the Montessori method with other methods. (27)
2. Practical examples which developed and applied the Montessori method. (18)
3. Studies about the Montessori method for handicapped children. (12)
4. Philosophical and theoretical studies about the Montessori method. (8)
5. Scientific studies about the Montessori method. (2)

The group of "Scientific studies about the Montessori method" had only two papers, the smallest in number of the five groups.

The Montessori method was created scientifically by Maria Montessori at the beginning of this century. During the following years the educational and psychological sciences have developed gradually. I think that the Montessori method should be further studied scientifically from the modern educational and psychological points of view. Scientific studies will clarify new aspects of the Montessori method and add new elements to it. The Montessori method will develop and be applied to various fields.

Key words : EDUCATION, MONTESSORI

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The Montessori method was an educational method which was created by Dr. Maria Montessori, a Italian psychiatrist. She began to teach mentally retarded children in 1898 and began to teach normal children in 1907. Since then the Montessori method has been practiced all over the world and studied from various points of view. (Nishimoto 1975)

In this paper I review practices and studies of the Montessori method from 1979 and intend to discover some tasks for future studies.

Method

In the library of Iwate University, in Japan, there is a computer terminal connected to the DIALOG data-base in the U.S.A.. Through this terminal I researched the following files in the DIALOG data-base, and tried to find papers from 1979 using the key word "MONTESSORI".

- File 1: ERIC 66-90/JUN
- File 5: BIOSIS PREVIEWS 69-90/MAY
- File 11: PSYCINFO 67-90/AUG
- File 37: SOCIOLOGICAL ABSTRACTS 63-90/APR
- File 54: ECER/EXCEP CHILD 66-90/APR
- File 72: EMBASE (EXCERPTA MEDICA) 82-90/ISS27
- File 86: MENTAL HEALTH ABSTRACTS 69-90/JUNE
- File 144: PASCAL 1983-1990 APR
- File 151: HEALTH PLANNING AND ADMINISTRATION 1975-90/JULY
- File 155: MEDLINE 66-90/AUG
- File 172: EMBASE (Excerpta Medica) 1980-81
- File 173: EMBASE (Excerpta Medica) 1974-79
- File 265: FEDERAL RESEARCH IN PROGRESS JUN 1990
- File 291: FAMILY RESOURCES 70-90/JUN

I read abstracts which were output from the DIALOG data-base, and obtained all books and copies of original papers. After I read them, I classified them into groups according to their contents.

Result and Discussion

Sixty-seven titles of books and papers were output from the DIALOG data-base. Only one of them was published in 1990. I researched the DIALOG data-base in 12 July 1990. There might be a possibility that some papers which had been published in 1989 were not input into the DIALOG data-base.

I classified these sixty-seven books and papers into five large groups. Each large groups had some small groups.

The five large groups are the following. The numbers of books and papers contained

in each large group are shown in parentheses.

1. Studies which compared the Montessori method with other methods. (27)
2. Practical examples which developed and applied the Montessori method. (18)
3. Studies about the Montessori method for handicapped children. (12)
4. Philosophical and theoretical studies about the Montessori method. (8)
5. Scientific studies about the Montessori method. (2)

I mention briefly the contents of the papers and books in these five groups in order below.

1. Studies which compared the Montessori method with other methods.

Studies in this group are the largest in number in the five groups. These studies compared the Montessori method with other methods from various points of view.

This group has four small groups.

- (1) Scientific studies which compared the Montessori method with other methods.

These studies were reports mainly about the influence of the Montessori educational method on some aspects of child development. Especially the effects of the Montessori educational method were examined. Their results were mixed.

Jones and Miller (1979) discussed the long-term effects of preschool on sixth and seventh grade students. Subjects ($n=200$) were randomly assigned to one of four pre-school programs: Bereiter-Engelmann, Darcee, Montessori, and Traditional in 1968-69. In 1976-77, approximately 140 of the children were given the WISC-R and the SAT. Long-term program effects on achievement were found. Overall, children from the Montessori program consistently outperformed the others.

Krogh (1979) investigated the moral development of thirty 5-year-old children in Montessori and traditional preschools. Data for the study were derived from five sources: an intelligence test; a perspective taking task; an altruism/helping task; an altruism/sharing task; and an interview for exploring moral reasoning. Positive justice reasoning and altruistic behavior were not found to be affected by exposure to a Montessori or traditional school environment.

Yussen (1980) compared four-year-olds attending Montessori preschools with those attending traditional preschools on two memory tasks and on three social cognitive reasoning tasks. Although the Montessori students performed better on the recognition task, there were no other significant differences between the groups.

Miller and Bizzell (1984) reported the data on several measures for 160 low-income black ninth- and tenth-graders who participated for one year in Bereiter-Engelmann, DARCEE, Montessori, or traditional prekindergartens. They discussed possible relationships between techniques used in different preschool programs and sex differences in achievement level and IQ.

DeVries and Goncu (1988) compared social-cognitive development of 40 preschoolers from constructivist and Montessori programs who were playing a board game. Analysis of interpersonal negotiating strategies and conflict management showed that children from constructivist programs were more advanced in their social cognitive competence than were children in the Montessori programs.

Brand and Welch (1989) compared the development of 62 5- and 6-year-olds who were divided into 3 groups: a Montessori group, a traditional preschool group, and a stay-at-home group. Development was assessed with the Junior South African Individual Scale and the Vineland Social Maturity Scale. Significant differences in favor of school groups were found for vocabulary, language comprehension, ability to judge correctness of figural stimuli, visual memory, and perceptual organization. No differences were found for global cognitive development and social-emotional development, and no relationship was found between type of preschool and level of development.

These six studies examined the effects of the Montessori educational method on some aspects of child development. There were three more studies which compared the Montessori educational method with other methods from other points of view.

Hall and Orcutt (1980) reported on a preschool program for American Indians. The Tribal American Consulting Corporation designed a preschool program for American Indians in Los Angeles, California. Three curriculum models were used, based upon Indian culture, Montessori, and traditional/Piagetian Philosophies. Standardized tests were administered by an external evaluator to gather longitudinal data, and to identify strengths and weaknesses. Additional data were collected from observations of the students, particularly in their home interactions with parents. As a result of this evaluation, specific roles and responsibilities emerged for the personnel involved: evaluator, supervisor, teachers, and administrator.

Caldwell and others (1981) contrasted the beliefs of teachers in Montessori preschools with those of teachers in more traditional preschools. Montessori teachers were shown to be both more flexible in their attitudes toward children and more structured in their beliefs about how they should guide the child's use of instructional materials.

Wing (1989) examined the relationship between two (Montessori and traditional) preschool program directors' and teachers' beliefs, instructional decisions, and preschool children's conceptions of reading and writing. Results showed that preschool children's conceptions of reading and writing reflected the practices of two programs.

I think that the reason for the mixed results about the effects of the Montessori educational method is a methodological problem. For example, it is very difficult to make quite homogeneous groups, Montessori group and other method groups, on some points of developmental level, family condition, community situation and so on. Jones and Miller (1979), and Miller and Bizzell (1984) resolved this problem by randomly assigning subjects to each group. If subjects are not assigned randomly, the groups have been heterogeneous before they are studied or before they are educated by some method.

