Renewed Interest in Piaget and Montessori: Implications for the Teaching of Beginning Reading.

The theories and practices of Jean Piaget and Maria Montessori are outlined in relation to the teaching of beginning reading. Parallels are drawn between the two authors' views of the nature of intelligence and of motivation, leading to the conclusion that there may be danger of overemphasizing reading at the expense of other areas of the curriculum. (AA)
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Implications for the teaching of beginning reading

Carole J. Norris
While it is difficult to determine whether it is a cause or a result of the renaissance in early childhood education, the rediscovery of the work of Montessori and Piaget certainly has helped to enliven the instructional scene. These distinguished persons focused their work on aspects of methods, cognition, human development, and language growth at age five or below.¹

A renewed interest in the research of Piaget seems to exist in American education. Does this interest have implications for the teaching of reading?

Piaget, in his interesting book, *Piaget for Teachers*², proposes that an early focus on thinking is better preparation for later emphasis on constructive learning through intelligent reading than the present emphasis on early reading. We are but scratching the surface with our piecemeal efforts in schools—a new reading program here, a new language arts program there, diagnostic testing in one school, perceptual training projects in another. We need a new philosophy that does not merely ameliorate or add to existing structures. We must start from the ground up in a professional, rational manner and ask ourselves what kind of school is psychologically and socially suitable for the children of today.

Piaget proposes seven points on the matter of early schools:

1) Reading and writing proficiency are most valuable and

desirable skills.

2) Knowledge can be viewed under a specific and a general aspect. As general knowledge, it relates to the overall capacity to acquire and apply special knowledge. We may call this capacity intelligence. When intelligence is particularly active in the child's behavior, let us call this activity thinking.

3) The age range of five to ten years, roughly kindergarten through grade four, constitutes the establishment of what Piaget calls "operational" intelligence. These general concepts of space, time, relations, classes, combinations, etc. become available to the child and evolve whether the child goes to school or not, because they are not dependent upon specific instruction.

4) The development of intelligence proceeds spontaneously, and it can be helped or hindered by the environment. Many children enter school, if not with a crippled intelligence, at least with an intelligence that is not well nourished.

5) Assuming that many children who come to school are intellectually impoverished but still have enough internal motivation to grow intellectually—as it is shown by the fact that their intellects will continue to grow with or without school—what, in effect is the school offering the child? The twin conditions; learn reading and forget your intellect go hand in hand. The average five to nine-year old child from any environment is unlikely, when busy with reading or writing, to engage his intellectual powers to any substantial degree. A school that in the earliest grades focuses primarily on reading cannot also

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focus on thinking. It must choose to foster one or the other. Historically, it has chosen reading.

Reading is learned because the child wants to please his parents, to imitate his peers, or to explore the contents of books. Thus, the motivation of reading lies outside the reading process; it is extrinsic. The reading difficulties of an ordinary eight-or-nine-year old child are most likely due to lack of motivation or to faulty learning habits and should not be attributed to lack of intelligence.

Here is the essence of the tragedy. Our schooling does not merely affect the intellect in an adverse manner by leaving it undernourished; more important, it fails to use the motivational forces that are present in any five-and six-year old child.

In conclusion, the first job of our elementary schools today should be to strengthen the thinking foundation on which any particular learning is grounded. To do this administrators, teachers, and society at large must come to a fuller understanding of the natural development of the child's mind. If early schooling aims to emphasize and nourish the thinking capacity of the child, it cannot look to performance in reading and writing as an immediate criterion of success. In the long run, some positive transfer can reasonably be expected from a child who has been encouraged to develop intellectually for three or four years and who has been given a clear message that thinking is among the primary purposes of school life. Such a child will soon reach the point where he will spontaneously come to realize the value of reading and will learn to read in the easy, self-taught fashion of many preschool youngsters from homes where reading is an everyday activity.

These are the seven main points of Piaget's argument, summarized. The conclusions may not sound altogether convincing until you have
a good grasp of what is meant by the thinking foundation on which learning is based. He focuses almost exclusively on helping you to understand the theory of intellectual development and its application to grade school.

**MONTESSORI METHOD**

Maria Montessori is an Italian educator who founded a new method of teaching young children, called the Montessori Method. Maria Montessori was an only child of middle-class parents. She determined to study medicine, although women doctors were unheard of in Italy at the time. In 1894 she was awarded the degree of Doctor of Medicine by the University of Rome. She was the first Italian woman ever to receive that honor.

The first Montessori school was opened in Rome in 1907. Later, with the support of Benito Mussolini she founded a new International Training College. In 1922 she was named government inspector of Schools in Italy. Maria Montessori lectured throughout Europe, and conducted training courses in England.

Montessori Method is a system of educating young children according to principles developed about 1906. The chief aim of the method is to develop the child through the education of his senses between the ages of one and a half to about five years. The program also calls for a "children's house", which the children take charge of themselves. The objects used in the house should be breakable so that the child will recognize his mistakes in using them.
The Sensory-Cognitive Model

The classroom of the sensory-cognitive model, based on the Montessori method, is arranged in an orderly and uncluttered manner. There are low shelves along the walls. Each material is visible and accessible for small child use. There are small chairs and low tables in the room. Each child has a small rug to roll out on the floor and many of the children's activities consist of working with materials on their individual rugs.

Montessori materials can be grouped into three broad categories: those designed to develop sensory skills; those designed to allow children to carry out practical life activities; and those designed for teaching writing and arithmetic. The art activities and dramatic play are not provided for. Children are free to select their own activities. The classroom atmosphere is different from an "activity-centered" classroom. Here it is one of "quiet activity". Children work individually with the materials, only occasionally joined by a teacher to demonstrate the use of a particular material. Opportunities for outdoor gardening, and care of plants and animals are also provided for.

Children in the Montessori school take care of their own classroom; they wash the table, sweep the floor, return materials to their proper place, and so forth.

As an observer in a Montessori classroom, I was struck by the extent to which the teacher remains in the background rather than directing children's activities, and by the children's sustained involvement with a particular material, working with that material over and over again.

Montessori's prescriptions for the teaching of reading and writing are famous. In the Montessori system, children learn the alphabet through the use of "sand letters"—sandpaper insets on smooth boards—over which they run their questing fingers. By the process of tracing the sand letters, the child acquires basic movements which will enable him to write the letters.

Having learned the alphabet in this manner, the child is ready to move on to the construction of words, which is done in a straightforward manner through the use of alphabet cards. The child takes the cards from a storage box modeled on a printer's type-case, and spells out words which are dictated to him. Here, too, Montessori claims a self-checking feature: the child will "have the proof of the exact solution of his problem when he rereads the word." This process is easier in Italian than in English. The next step is, as Montessori says, pure natural magic—the child, having learned to trace and write the letters, and then having put words together with pre-printed letter-cards, suddenly discovers he can write, all by himself. Montessori was unquestionably correct in her statement that children as young as age four very much want to read and write, if they get the notion that they can read and write.

In the Montessori training, we can explain the child-material interaction as the degree to which learning is to occur through "doing" with emphasis on nonverbal experience. The sensory-cognitive model ranks high. Objectives include: (a) ability to match and discriminate shades of color, sounds, textures, weights; (b) ability to order objects along a dimension of increasing size, pitch; (c) ability to differentiate an order of increasing weights from one of diameter; (d) care of plants and animals; (e) ability to care for oneself (washing, dressing); (f) counting; (g) development of motor skills for writing; (h) learning the sounds of letters; and (i) development of attention.5

The activities in the Montessori program are presented in a carefully prescribed manner. A detailed description of Montessori's didactic materials is impossible here but can be found in Dr. Montessori's Own Handbook.

Referring to a) exercises requiring the ability to match and discriminate shades of color is the following. Colored tablets, for example, are first presented to the child as a matching task of same and different; of pairing together the blue, red, and yellow tablets. Later, tablets of the same color but different shades are introduced, and the task is to order the tablets from dark to light.6

The activities for motor education are also carefully prescribed. Each activity is reduced to specific things children must do. Children learn how to polish their shoes, how to set the table, how to wash their hands and tie their shoes. The teacher demonstrates these activities with "few or no words at all, but with very precise actions."  

Conclusions

Montessori's view of intelligence as the ability to order and classify, her belief that development evolved through the child's interactions with the environment and proceeded through "stages," brings her very much in line with Piagetian thinking, as does her emphasis on intrinsic motivation, and the sensorimotor roots of intelligence.  

Piaget believes that the motivation that regulates the growth of intelligence is intrinsic. It is intrinsic because the development of intelligence is the result not of some outside factor but of an internal regulating force that is not solely or primarily dependent on the objects with which the intellect is in contact.  

Piaget reiterates how tragic schools are today. Schools do not nourish the intellect, but we spend too much time focusing on reading instruction. Shall we still look to performance in reading? 

and writing as an immediate criterion of success? As a former reading specialist, I had advocated early reading instruction and taking drastic steps to prevent reading failures in early grades. Now I realize that I was going with the trend in the 1960's of fostering reading instruction, without as Piaget says, thinking. After reading these articles on Piaget and Montessori, I have somewhat changed my thinking and view reading and language arts as part of the total curriculum and not to focus exclusively on teaching the child to read while forgetting other curriculum areas. In fact, I think this is what has caused so many learning disabilities in the 1970's.

7 Ibid, p. 57.
Bibliography


