

Clara Tornar, *The method in action: research data*

Indicators of a growing scientific attention towards present trends in Montessori pedagogy, which may be detected over time within the international bibliography, opened new research paths and debate lines of great historical, theoretical and applicative interest. However, examining contributions made in different research areas, scientific items deriving from empirical studies still seem to be insufficient to enable descriptions and analyses based on systematic observations or experimental validation of the elements characterizing the Montessori learning environment and its effects on the child's cognitive performance, processes and behavior. The research project initiated by the Centre for Montessori studies aims at providing a quantitative and qualitative profile of contexts, activities and processes connected to different applications of Montessori pedagogy in Italy. The paper will present the conceptual frame of this project and will discuss initial research data already collected. It will then debate implications of such findings on school practice.

Mauro La Torre, *The method's language: first results of a textual lexicometric analysis*

One of the potential lenses which may be used to study a cultural artifact is the study of its specific language, not only as a communication code, but also - and most of all - as a projection of its conceptual connections. For Montessori pedagogy, the methodological choice of Cesmon (Center for Montessori Studies) has been to elaborate strategies and techniques for the treatment of available empirical data enabling the construction of semantic models to be validated through facts and materials. In the case of Montessori's written production, a sufficiently wide body of integral texts is not available. However, a virtually complete bibliography exists containing titles, time and space references, and other linguistic as well as typological and editorial parameters. From the bibliography, a textual body has been extracted to be analyzed with computational and lexicometric tools.

A total of 13,000 Italian titles (original and translated) has been analyzed both globally - as a vocabulary of graphic forms and text segments - and as a stratified data system through key variables such as time, space, type and author. Globally, the peculiarity of Montessori lexicon has been evaluated against the pedagogic language and the common language in general. Specifically, within the different dimensions of this analysis, the characteristic forms of single time, typological and author strata and their combinations have been studied (e.g., combinations of authors and time). The high polysemy of graphic forms, when considered by themselves, is clarified through the context analysis, which has the specific aim to detect usage meanings actually encountered. On the other hand, on the basis of actual synonyms, some semantic paradigms have been defined to be considered as potential conceptual nodes.

Finally, the search and measure of co-occurrences has been used to show links between underlying concepts. Further developments include factor analysis methods to detect new dimensions, on the basis of matrixes of lexical data available.

Daniele Novara, *The maieutic nature of the Montessori method*

«The child that improves and learns is joyful. He feels good. This wants mother nature».
(M. Montessori, 1926).

Montessori method is characterized by an extraordinary coherence with children's learning potential. Montessori's deep belief that the learning motivation was at the basis of any possible children's education is corroborated by several scientific approaches nowadays. The most modern theories have progressively confirmed her intuitions, although they have created a re-visiting dialog with her method. It would be dull to leave it without any innovative crossbreed, Montessori being one of the rare pedagogic methods which survived the hard and complex XX century's ruins. In particular, the following notions need to be considered:

- the comprehension of children's multiple intelligence in the organization of the learning process;
- the use of conflict as a legitimate heuristic tool to free children's competencies from the tangles of mere appearance, hindering them to grow and to learn the unexpected;
- maieutics as a relational approach centered on comprehension, listening and sustainability for the child of his/her evolutionary tasks;
- the "inherent sensibleness" of children's behaviors, the ethological motivations founding the assimilation processes of new knowledge; the selective skills managing information.

Overall, there is still room for further variations, starting from Maria Montessori, with Maria Montessori.

Giovanna Providenti, *The ecological dimension of Montessori self-education*

Montessori's metaphor of the teacher as an «astronomer sitting still in front of the telescope, while the worlds [boys and girls] swiftly rotate in the universe», invites me to revise the topicality of Montessori pedagogy, in the light of the notion of complexity, of a more articulated and problematic knowledge on human life and on the nature of mental processes. Montessori "self-education" system, between theory and practice, proves to be an adequate tool for the construction of a "favourable mental atmosphere" and for the inception of constructive processes reaching ecological balance of earth and mankind alike. Revealing with education the harmonic and respectful development of the individual's growth rhythms from infancy to adult age, Montessori shows the educational pathway of self-conscious individuals, aware of their connections with other creatures, and able to take on their ethical responsibilities.

Monica Salassa, *Montessori secondary schools in Italy*

It is commonly thought that the method of Montessori scientific pedagogy be an educational method of great efficacy if applied to children aged 3 through 6 in the *Casa dei Bambini* and in primary schools up to 10 years of age. As a matter of facts, the composite pedagogic project by Maria Montessori draws a complete development cycle divided in four periods of six years each (from birth to 6 years of age; from 6 to 12; from 12 to 18; from 18 to 24) corresponding to as many periods as in individual development, whose awareness is of great importance for the practical organization of education.

From the initial diffusion of Montessori pedagogy and methodology, the first and subsequent development plans have been successfully experimented several times in Holland and England. In Germany at present there are secondary schools organized on the basis of the Method's principles, whereas in Italy in the past 50 years no major experimentation in this teaching methodology have been undertaken.

This paper intends to narrate and confront some important experiences carried out in Italy from

the end of 1950s up to now, with their historical and didactic-pedagogic profile. The experiences described are educational projects for the realization of lower secondary schools in continuity with Montessori primary schools. Many of these cases stem from the increasing need of parents of primary school pupils, whom are preoccupied to continue the education of their children in non Montessori environments. More specifically, the re-construction of some phases of project and implementation of a Montessori lower secondary school in Como, through the narration of key informant, allows a focus on the intermediate phase between theoretical foundations and practical realization in daily life. Another outcome is the evaluation of those elements which, on the basis of Montessori pedagogy principles, may be transferable to future applications in other contexts.

Grazia Honegger Fresco, *Maria Montessori's pedagogical plan for the "long human infancy"*

Maria Montessori's anthropological interests (as a scientist, rather than as an educator) are reflected in her idea of development and consequently on her idea of education. After her start with S. Lorenzo's Casa dei Bambini, hosting children aged between 2 and 5, 6 years, she was actively involved in elementary school (with 6-12 year olds). She conceived materials on a sensorial basis, which very efficiently met the needs and filled the curiosity of pre-school and school children. Infants have been in her thoughts since her first books, and afterwards she dealt with them more thoroughly in her conferences and texts during the Twenties and Thirties. Fascinated by pubertal changes (a "new birth"), she subsequently directed her interest also to adolescence issues: during her final years of World War II spent in India, she continued observations in several schools of various regions in the world with many educators, and with her son Mario she enriched her project for children aged 6-12 with the *cosmic education*. At the same time she improved the four plans of development. Her way of working has always been to observe behaviors, needs, desires of children and start from there to understand the legitimacy of those phenomena, expressions of diversity and of human potential. *Ex-ducere*, Latin etymology of education, in Maria Montessori literally means to conduct the child from birth to a self-regulated life, "full" of possibilities, with a life project that is unique and irreplaceable, the opposite of the "empty" concept so often encountered in today's schools, where infants and children since their early years are to be "filled" or directed by someone else. Having established that in all plans of the long human infancy – from birth through the end of adolescence – each child or adolescent needs not to find stimula, but rather answers for his/her level of development (in a continuous self-regulation!), Montessori discovered how at every age a non-directive organization of education is possible, as well as an adaptation of potential choices for each life period. This can be obtained by finding tools to be offered to children or adolescents (not destined to teachers, thus not didactic), by preparing adults for observation and comprehension of emerging phenomena, by adequately organizing the environment, with the ultimate goal to respect free choice and individual work and growth rhythms as far as possible. This tripartite system (materials for "hands, organ of intelligence", on-going teachers' training and environment preparation) is found as an answer to each plan of development, but at the same time with profound differences, characterizing the different plans.