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Maria Montessori's concept in action: Implementation in preschool education institutions in Ukraine and France

Abstract. The relevance of the study implements current trends in finding effective ways to improve the quality of preschool education. The research problem involved identifying the leading conceptual ideas of the theoretical and practical work of the Italian scholar Maria Montessori and their efficiency in the preschool education system in different countries. The purpose of the research was to analyse and interpret the main provisions of Maria Montessori's concept of organising the educational process with children of early and preschool age and their implementation in preschool education in Ukraine and France, as well as to substantiate the specifics of training specialists to work in institutions based on Maria Montessori's ideas in these countries. To achieve the aim of the study, a set of theoretical methods were used: analysis and synthesis, chronological method, pedagogical historiography, specification, systematisation, comparison, generalisation and prognosing. The article outlined the leading ideas of Maria Montessori's pedagogical theory and educational practice, which are fundamental to the current changes taking place in the global dimension of preschool education; describes views on the priority principles of personality development that emphasise the value of preschool childhood. The key principles of the scientist's concept in the context of organising the educational space of institutions for children of early and preschool age operating in Ukraine and France were highlighted; the common and different in their activities in applying the heritage of Maria Montessori's scientific pedagogy were determined: adherence to the

Suggested Citation:

Lohvytska, L., Levinet, N., Martovytska, N., & Sheleh, T. (2025). Maria Montessori's concept in action: Implementation in preschool education institutions in Ukraine and France. *Scientia et Societatis*, 4(2), 37-54. doi: 10.69587/ss/2.2025.37.

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basic provisions, development of a specially prepared environment, use of authentic didactic material and ensuring the professionalism of personnel. The specifics of teacher training for work in Montessori institutions of both countries, based on the implementation of the curriculum, which contains two mandatory components: theoretical and practical, were clarified. The scientific value and practical significance of the study is seen in the deepening of the content of the educational component "History of Preschool Pedagogy" for applicants for the specialty A2 Preschool Education and the educational component "Foreign Language for Professional Purposes" for future pedagogical specialists

Keywords: history of preschool pedagogy; scientific approach; Montessori method; early childhood and preschool age children; personality development; Ukrainian system of preschool education; French system of preschool education

INTRODUCTION

Changes in the education system taking place around the world are directly relevant to its first component – preschool education. The preschool education sector is characterised by educational content presented to children improvement and the search for effective methods of organising the educational process aimed at improving the quality of preschool education. The scientific community and preschool teachers increasingly turn to the works on the preschool education development. The work of the outstanding Italian scientist, doctor, psychologist, and teacher – Maria Montessori – who organised institutions for preschool children and developed the concept of the educational process in them, enjoys exceptional popularity compared to others. The scholar was a pioneer in organising institutions for preschool children and developing the concept of the educational process. Many countries around the world have institutions for preschool children based on the system developed by Maria Montessori. Teachers are trained to work in these institutions, and Maria Montessori Associations have been established. Scientific research focuses on understanding the phenomenon of this outstanding personality, whose psychological and pedagogical ideas and guidelines for the development, upbringing and education of preschool children have remained relevant for many decades. This has determined the need to study the conceptual provisions of Maria Montessori's scientific and practical work and their implementation in preschool education institutions in different countries.

Based on the analysed number of sources, it has been established that institutions for preschool children that implement the educational process according to Montessori's system exist in a number of countries around the world. According to research by M. Debs (2022), educational policy in India is aimed at implementing Montessori's conceptual principles, as they are defined as fundamental to the development of the nation. Maria Montessori's stay and teaching activities in India had a positive impact on the spread of unique approaches to the implementation of free education and consideration of children's natural characteristics. In the work by M. Efe & I. Ulutas (2022), the authors highlighted the preschool teachers' positive experience of applying Montessori's educational system in Turkey. The variety of materials and the involvement of children in productive activities stimulate active exploration of the surrounding environment. This forms the basis of Maria Montessori's philosophy, which is considered to be a complex process, but,

nevertheless, is widely practiced by Turkish teachers. The Montessori-method is also popular in the preschool education system of Portugal, as noted by authors L. Moreira & T.Q.F. Barata (2022). They emphasised the use of toys aimed at developing children's sensory perception, which highlighted the significant contribution of Montessori's method to their design. The materials suggested by the scholar are of reference value and stand out as exemplary "sensory products". The study by B. Bednarczuk (2023) characterises the experience of Montessori institutions in the Republic of Poland. It emphasised the importance of providing an educational environment, the guiding principle of which, according to the researcher's concept, was to support the individual's potential. This key principle of Maria Montessori's pedagogy, as emphasised by B. Bednarczuk (2023), should be fundamental to the education system and the paradigm of lifelong learning. The work of M. Laure & K. Habe (2024) presented the achievements of educational institutions for early childhood and preschool age children working under the Maria Montessori system in Slovenia. The focus of these authors' research is on the development of rhythmic abilities in preschool children based on the use of Maria Montessori's materials, which had a significant positive result. The monograph by N. Yakobchuk (2023) noted that the ideas of the outstanding Italian scientist are actively applied in Ukraine, where the number of Montessori institutions is constantly growing. However, there is a need to study the key ideas of legacy and strengthen implementation measures for practical application. A special niche is reserved for the translation of Maria Montessori's scientific works into Ukrainian. The study by A. Demangeon *et al.* (2023) revealed the impact of Montessori's educational system on the preschool children's development and learning, using the example of schools in France. The study analysed the impact of Montessori Education (ME) on five dimensions of personal growth: cognitive abilities, social skills, creativity, motor skills and academic achievement. The researchers proved the efficiency and necessity of introducing ME into the educational process of preschool institutions. The conclusions of studies on the effectiveness of Montessori preschool classes, which operate widely in the United States, are of significant scientific interest. The authors A. Lillard *et al.* (2025) pointed out that, according to Maria Montessori's system, it is important for children to interact with their environment, which allows them to freely choose activities and work with different materials.

Organising the educational process in this way promoted both academic and emotional support, which has a positive effect on children's well-being and success and proves the effectiveness of Maria Montessori's theory in practice.

Therefore, researchers emphasised that in the context of reforming the preschool education system, it is important to find effective psychological and pedagogical tools that will contribute to its improvement. These tools should align with societal development trends and ensure the formation, from an early age, of a free and independent individual capable of expressing their own unique abilities. Based on the position of P. Frierson & L. Paolo (2025), it can be concluded that Montessori pedagogy is extremely relevant in the context of achievements in cognitive science and philosophy of mind. It is on this important thesis that Maria Montessori's concept is based, which determines its popularity throughout the world and requires a deep understanding and practical implementation. Given the spread of the Maria Montessori's psychological and pedagogical ideas, who defended scientific positions on the implementation of the principles of child-centredness, anthropocentrism and a humanistic approach as fundamental in the organisation of the educational process with preschool children, it is important to specify the scientist's original paradigms. This will enable teachers to discover new opportunities in developing subject-subject interaction precisely by considering the characteristics of personality development and its nature (abilities and opportunities) to the maximum extent possible, and to provide appropriate training and education, adapting it to the individual growth of each child. This aspect was the research issue of the presented thematic study. The purpose of the article was to analyse the conceptual foundations of Maria Montessori's "scientific method" and to compare the characteristics of the functioning of Montessori institutions and the training of personnel for them in Ukraine and France. The tasks were as follows:

- 1) to outline the leading ideas of Maria Montessori's pedagogical theory and practice by describing the priority principles of personality development, which are based on recognising the intrinsic value of childhood as a central creative-based principle;

- 2) to determine the state of implementation of Maria Montessori's concept in the organisation of the educational process in preschool institutions in Ukraine and France; to identify the similarities and differences in the activities of institutions based on the principles of Maria Montessori's pedagogy in both countries;

- 3) to figure out the specifics of training teaching staff for work in pre-school educational institutions working according to the Maria Montessori system in both countries (Ukraine and France).

The scientific novelty lies in the formulation of the key ideas of Maria Montessori's concept in accordance with the trends in the development of modern preschool education, which are relevant for implementation in the content of the educational and professional programme for students

of the first (bachelor's) level of higher education in the speciality A2 Preschool Education, in particular in the educational component "History of Preschool Pedagogy" and the educational component "Foreign Language for Professional Purposes" for students of pedagogical specialities, and the definition of the evidence base for arguments regarding the need to develop a selective educational component in the context of professional training of teachers to work with preschoolers in institutions operating under the Maria Montessori system.

MATERIALS AND METHODS

The research was carried out in the following main stages. The first (preparatory) stage involved specifying the research topic in accordance with the outlined scientific issue, defining the key provisions of Maria Montessori's concept in accordance with the studied arsenal of scientific and pedagogical sources (Table 1), conducting a preliminary analysis of psychological and pedagogical sources, which made it possible to formulate the research goal and objectives. The second (main) stage consisted of defining the main ideas of Maria Montessori's pedagogical theory and practice, outlining the priority principles of personality development in early childhood and clarifying the essence of the Montessori method in the organisation of the educational process; characterising the state of implementation of the Maria Montessori concept in preschool educational institutions of Ukraine and France; clarifying the peculiarities of professional training of specialists in both countries to work in preschool educational institutions according to the Maria Montessori system. The third (final) stage involved summarising the findings and presenting a schematic overview of the similarities and differences based on the analysis of the organisation of the educational process with preschool children in institutions operating according to the principles of Maria Montessori pedagogy in Ukraine and France; outlined the strong points of the Maria Montessori's system; and formulating conclusions based on the conducted scientific research, which will contributed to expanding the content of the educational component "History of Preschool Pedagogy" and promoted the further popularisation of the progressive principles of Montessori's concept. Justification of the research methods used: theoretical methods – analysis and synthesis – during the selection and processing of the scientific source base related to the historical and pedagogical aspect under study; chronological method – in the process of highlighting brief biographical data on Maria Montessori, events and phenomena of the historical period of Montessori's life; pedagogical historiography – in the course of comprehending and interpreting Maria Montessori's main views on the development, upbringing and education of preschool children; concretisation – to outline the main conceptual provisions of Maria Montessori's scientific work and pedagogical legacy; systematisation – in describing the implementation of Maria Montessori's concept in the educational process of preschool education institutions in Ukraine

and France in accordance with current trends in preschool education; comparison – in identifying the similarities and differences in the functioning of institutions operating according to the Maria Montessori system in both countries; generalisation – in establishing the specific features of

training teachers to work with preschoolers based on Maria Montessori's pedagogy and in making conclusions regarding the results of the study; prognosing – in predicting the prospects for further scientific research to enrich the educational content on the history of preschool pedagogy.

Table 1. Thematic description of the studied scientific and pedagogical sources

Contents of the material presented	Sources
Practical achievements in applying Maria Montessori's principles in a particular country	Bednarczuk, B. (2023). Potential and actual significance of Montessori learning Environment. Debs, M. (2022). Montessori in India: Adapted, competing, and contested framings, 1915-2021. Demangeon, A., Claudel-Valentin, S., Aubry, A., & Tazouti, Y. (2023). A meta-analysis of the effects of Montessori education on five fields of development and learning in preschool and school-age children. Efe, M., & Ulutas, I. (2022). Beyond teaching: Montessori education initiatives of public preschool teachers in Turkey. Laure, M., & Habe, K. (2024). Stimulating the development of rhythmic abilities in preschool children in Montessori kindergartens with music-movement activities: A quasi-experimental study. Lillard, A.S., LeBoeuf, L., Borgman, C., Martynova, E., Faria, A.-M., & Manship, K. (2025). When bigger looks better: CLASS results in public Montessori preschool classrooms. Moreira, L., & Barata, T.Q.F. (2022). Inclusive product design: Applying the Montessori methodology into the design conception of children's products. Yakobchuk, N. (2023). Pedagogical views of Maria Montessori in Sofia Rusova's scientific research.
Historiography of Maria Montessori's life and heritage	American Montessori Society. (n.d.). History of Montessori education. Association Montessori Internationale. (n.d.). Biography of Maria Montessori. Frierson, P. (2021). Maria Montessori. Harrises, D. (2024). The Maverick known as Montessori. Moussy, B. (2007). Between Pauline Kergomard and Maria Montessori. Murray, A.K., Johnston, L.C., Sabater, A., & Clark, K. (2020). Hidden black voices in the history of Montessori education. Quarfood, C. (2022). Situating Montessori. Pironi, T. (2011). From Ellen Key to Maria Montessori: The design of new educational spaces for children. Romano, A. (2020). Maria Montessori: A complex and multifaceted historiographical subject. Santini, G. (2024). The best weapon for peace. Maria Montessori, education, and children's rights by Erica Moretti.
Theoretical analysis of Maria Montessori's psychological and pedagogical ideas	Culclasure, B.T., Daoust, C.J., Cote, S.M., & Zoll, S. (2019). Designing a logic model to inform Montessori research. Gutek, G.L., & Gutek, P.A. (2020). The fifth woman: Maria Montessori. Fabri, M., & Fortuna, S. (2020). Maria Montessori and neuroscience: The trailblazing insights of an exceptional mind. Frierson, P., & Paolo, L. (2025). Montessori, math, and materials: A case of extended cognition. Hopta, S.M. (2020). Pedagogical ideas of Maria Montessori in the context of modern educational space. Lillard, A.S., Heise, M.J., Richey, E.M., Tong, X., Hart, A., & Bray, P.M. (2017). Montessori preschool elevates and equalizes child outcomes: A longitudinal study. Montessori, M. (1950). The discovery of the child. Montessori, M. (1957). The child in the family. Montessori, M. (2016). Self-education in teaching schools. Montessori, M. (2017). The mind of the child. Noordzij, F. (2023). Werken volgens Montessori. Raimondo, R. (2021). Maria Montessori and Anna Freud: Links and influences between pedagogy and psychoanalysis. Richardson, S. O. (1997). The Montessori preschool: Preparation for writing and reading. van Niekerk, J. (2024). Maria Montessori.

Source: developed by the authors

RESULTS AND DISCUSSION

The main principles of Maria Montessori's concept

Without going into a detailed and extensive review of the biographical data of the world-famous doctor, psychologist and pedagogue Maria Montessori (1870-1952), which

is presented in a number of sources (Moussy, 2007; Murray *et al.*, 2020; Frierson, 2021), this study focused on Maria Montessori's educational and scientific activities throughout life (Fig. 1 shows a portrait of Maria Montessori). In studying Maria Montessori's educational projects, scholars

T. Pironi (2011), A. Romano (2020) and G. Santini (2024) reveal the original paradigms of the psychological and pedagogical ideas of this outstanding Italian woman. As A. Romano (2020) rightly points out: “her experiences in different parts of the world are composed of numerous contributions characterised by different focuses and purposes”. Based on the analysed source base, it is worth noting that Maria Montessori made a significant contribution to the development of the “trajectory of internationalist philosophy” (Santini, 2024). Maria Montessori’s concept was based on the principles of humanism and respect for the personality of each pupil, on commitment to social responsibility and dedication to children with special educational needs (Gutek & Gutek, 2020). Founded by Montessori in rural areas around Rome, San Lorenzo Casa dei Bambini played a key role in shaping scientific principles regarding the education of children in the context of their physical and mental development and considering the influence of the environment (Association Montessori Internationale, n.d.). It contributed to the development of an educational method based on keen observation of children’s behaviour as they learn naturally (Lillard *et al.*, 2017; Murray *et al.*, 2020).



Maria Montessori, Barcelona, 1926.
Photograph courtesy of the Archives
of the Association Montessori Internationale.

Figure 1. Portrait of Maria Montessori

Source: A.S. Lillard *et al.* (2016)

In order to implement the proposed educational project, Maria Montessori gave a series of lectures in various countries (the United States, Spain, the Netherlands, etc.), in which the scholar taught the fundamentals of Maria Montessori’s philosophy on the development, upbringing and education of children (American Montessori Society, n.d.). Between 1932 and 1939, Maria Montessori held conferences in European cities, emphasising the uniqueness and singularity of childhood, calling children agents of peace, a unifying force capable of securing the future of society. Thanks to Maria Montessori’s efforts, a series of educational reforms were implemented in India, where the scholar lived with son Mario Montessori between 1939 and

1946 and 1947-1949 (Debs, 2022). According to research by C. Quarfood (2022), it was appropriate to define the concept of “Montessorism as a special worldview and social programme of the movement”. Currently, Montessori Associations operate in many countries around the world, organising activities for preschool children based on Maria Montessori’s system and providing professional training for teaching staff according to relevant programmes.

The key principles of preschool education according to Maria Montessori’s concept were: giving children freedom and developing their autonomy, which allowed them to satisfy their own inner need for full development through self-growth, self-learning and self-education; providing an optimally prepared structured educational environment with accessible and pedagogically appropriate didactic materials that they can freely choose to satisfy their cognitive interests, which thus developed the basis of their self-development; development of sensory, muscular and practical skills that stimulate intellectual and language abilities, as well as awareness of moral behavior norms in the environment (Montessori, 1950; 1957). The organisation of the educational environment in one of the institutions founded by Maria Montessori in 1924 is shown in Fig. 2.



Figure 2. Educational environment
of Montessorischool in de Hasebroekstraat 113
in Oud-West (Italy), founded in 1924

Source: Montessorischool (2019)

Maria Montessori’s experience as a scientist, pedagogue and physician, combined with knowledge of psychology and determination, enabled the scholar to create an educational environment that stimulated children’s emotional and sensory spheres and developed their interest. Researchers have termed this the “Montessori method” (Murray *et al.*, 2020; Harris, 2024). The implementation of Maria Montessori’s concept is one of the models of preschool education, which provides for both free activities chosen by the child independently and appropriately guided by the teacher, which includes educational content presented in a non-instructive manner, and the development of curiosity and expansion of knowledge, i.e. the “cognitive process” (Lillard *et al.*, 2025; Frierson & Paolo, 2025). As

noted by D. Harris (2024), “the Montessori method recognised sensitive periods of development in human life”, as its implementation was based on the idea that each pupil is an individual with their own abilities, desires, demands and needs, and focused on conducting scientific observations that made it possible to monitor progress in development. Maria Montessori's philosophy essentially pursues the main goal – “all children have the potential to become self-motivated, independent, and lifelong learners given an appropriate environment in which to flourish” (Murray *et al.*, 2020). The renowned scientist pursued this goal by devoting Maria Montessori's entire life to serving children and their successful development. A fragment of the educational environment for children's independent activities is shown in Fig. 3.



Figure 3. Australian Montessori classroom

Source: National Museum Australia (n.d.)

In Maria Montessori's concept, an educational environment that encompasses various connections with the material, social and cultural world should, above all, promote the self-affirmation of the growing personality. In such an environment, as noted by researcher of pedagogical legacy B. Bednarczuk (2023), children have the opportunity to realise their aspirations and desires and to cooperate with others. This ensures a relative balance of motives, as some of them encourage the child to interact with others, while others encourage self-improvement, supporting the potential of the personality. The importance of the environment in supporting balanced child development and promoting full learning is reflected in the stimulation of psychological growth, which has a direct impact on speech acquisition, the development of object manipulation skills, and physical development through physical exercise, which is closely linked to the development of the brain and nervous system (Fabri & Fortuna, 2020). In other words, the educational model based on Maria Montessori's concept supports the natural and balanced development of the individual, their ability to align personal interests with the goals of others, and also develops the ability to take responsibility for joint activities at both the personal and social levels (Gutek & Gutek, 2020; Bednarczuk, 2023).

Montessori institutions are based on elements for exploring objects and materials, which encourages children to visually examine and investigate them, applying volitional effort (Culclasure *et al.*, 2019; Raimondo, 2021). In turn, this shapes children's personality traits and teaches them to follow the rules of behaviour in their environment (Frierson, 2021). According to B. Bednarczuk (2023) and J. van Niekerk (2024), Maria Montessori developed a theory of self-development considering both internal (natural abilities, opportunities, inclinations) and external factors (social conditions, cultural foundations of the environment). The result should be the achievement of a personality state of volitional subjectivity, a conscious direction of one's own attitude towards oneself and others (in general, towards the world), which occurs in the process of learning and upbringing. Thus, the essence of the Montessori method for implementing educational tasks lies in providing children with unique assistance in developing their individual life potential and developing independence and self-affirmation (Bednarczuk, 2023; Noordzij, 2023).

Maria Montessori considered sensitive periods, relying on them as “windows of opportunity” (Montessori, 2017). These are the age periods when children are particularly receptive in terms of developing certain skills: motor, sensory, speech, mathematical, etc. It is especially important to pay attention to them before the age of 6, because the most critical periods occur at this age (Montessori, 2016). As proven by the results of S. Richardson (1997), Maria Montessori, who was a keen observer of the processes of children learning and growth, noted the sensitivity of speech development and the implementation of intellectual (sensory) and moral education tasks at the age of up to 6 years. To achieve this, the scientist developed exclusive teaching materials.

The key elements of Montessori's method were educational (didactic) materials and the way in which the teacher, in a prepared environment, facilitated the child's self-directed interaction with them (educational materials). Researchers of Montessori's pedagogical ideas call didactic materials “golden”, emphasising their uniqueness and educational and developmental effectiveness (Marshall, 2017). It includes a set of objects, interaction with which helps children to acquire sensory standards (colour, shape, size, texture) and form primary logical and mathematical concepts, ideas about the natural and material world, etc. Mastering the materials most often takes place individually, and later in pairs or small groups, during a three-hour “work cycle” (Marshall, 2017). It is supervised by an adult, but children are given the freedom to choose their own activities. They choose what to work on, where and for how long, alone or with someone else, following the rules of the group. There is no competition between children and no system of external rewards or punishments. This significantly distinguishes Montessori educational institutions from others, as they focus on the harmonious development of the personality in all areas, as opposed to focusing on the child's academic success.

It should be noted that the educational (didactic) materials alone do not constitute the Maria Montessori method; what is essential is the way they are used. Maria Montessori justified the concept of the “work cycle” based on own observations of sustained activity in children, which arose from their spontaneous interests (Montessori, 2016). The presence of spontaneous interest significantly affects the duration of the activity. This allows us to identify two specific features regarding the involvement of children in educational (didactic) materials that support their focus on a particular activity: “internal and external work cycles” (Marshall, 2017). The first feature is characterised by repeated and independent engagement with the material, the absence of breaks, and the need to prepare the space and the material itself (for example, to build a pink tower, you need to take ten bricks, place them on a mat, then take them apart and put them back in place). This approach focuses on developing the child’s concentration (Montessori, 2017). The second feature is the three-hour duration of the activity cycle. During this time, children can choose activities independently or together with others, find their own rhythm, and move freely around the room. The teacher’s task is to guide children who have difficulty choosing materials or who are ahead of others in learning how to interact with the physical world to work in small groups. The level of support for a child is based on an understanding of their individual needs and interests. The teacher has the opportunity to flexibly adapt the preliminary general plan of educational work in the group in accordance with the spontaneous interests that arise in children (Montessori, 2017).

This significantly distinguishes the Montessori environment from a strictly regulated, approved work plan for an institution, in which the teacher directs and controls the children’s compliance with certain rules and types of activities. As P. Frierson (2021) rightly points out, Maria Montessori became the founder of a new “scientific pedagogy” based on careful observation of children and a special approach to “evolutionary psychological science”. A properly organised “prepared environment” according to Maria Montessori’s concept provides the very context in which “cognitive tasks are performed in interaction between the brain, body and specific mathematical materials” (Frierson & Paolo, 2025). Thus, according to Maria Montessori’s concept, the environment is viewed as a holistic approach to teaching and raising a child, contributing to their harmonious development, independence and confidence. It is a specially organised educational space designed to ensure the personal growth of the pupil by giving them freedom in choosing materials, the opportunity to work with them according to their individual needs and interests and satisfying their desire to learn about the environment.

Introduction of Maria Montessori’s concept in preschool education institutions in Ukraine and France

The implementation of Maria Montessori’s pedagogical concept into preschool education practice began in 1992 with the opening of the state-run “Montessori School for Ages 3 to 7” in Kyiv (Radul *et al.*, 2023). It became an experimental platform, the results of which were extended to state, municipal and private educational institutions and child development centres in 17 regions of the country (Fig. 4).

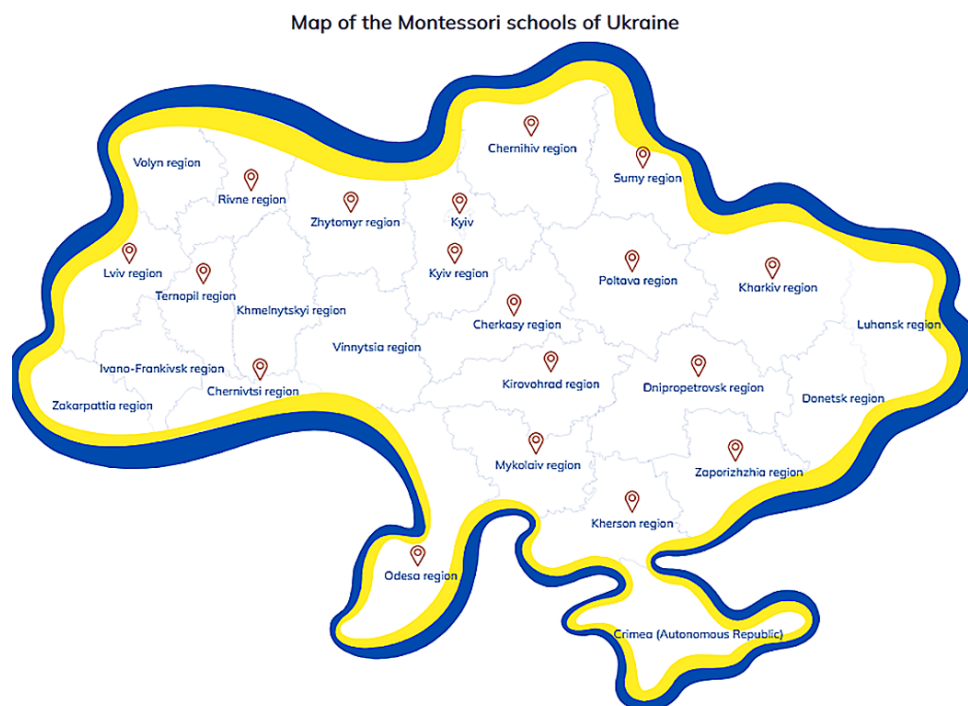


Figure 4. Map of Montessori institutions in Ukraine

Source: Montessori UA (n.d.)

The distribution of Montessori institutions shown in Fig. 4 provides regional coverage of nearly all oblasts of Ukraine, serving as platforms for the dissemination of

Maria Montessori's pedagogy within the educational space. The highest number of such institutions operates in the city of Kyiv, Ukraine (Fig. 5).

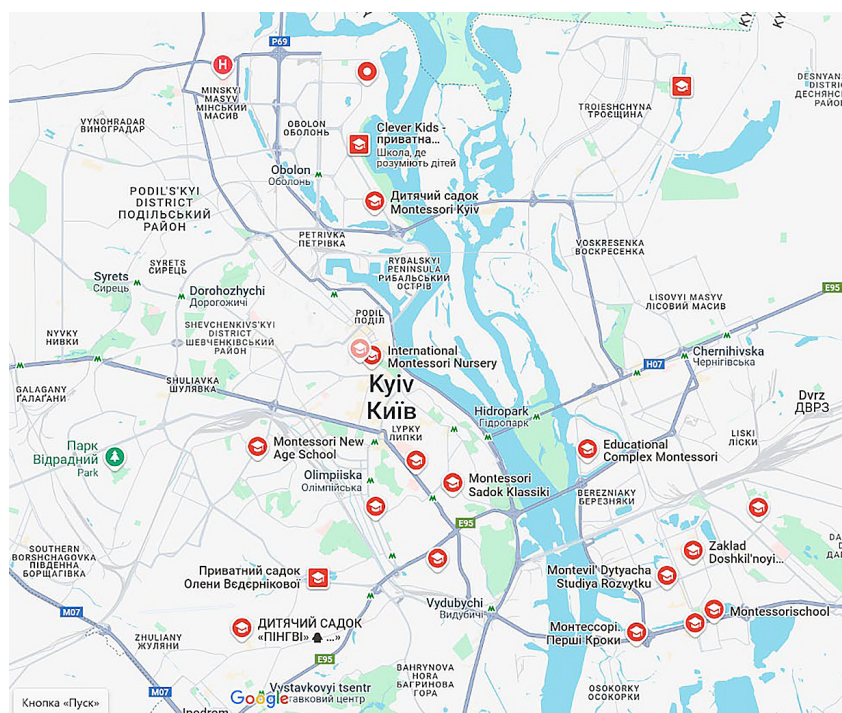


Figure 5. Location of Montessori kindergartens in Kyiv (Ukraine)

Source: Map of Montessori kindergartens in Kyiv (n.d.)

The location of Montessori institutions in Kyiv, shown in Fig. 5, indicates their significant popularity. The spread of the ideas of the outstanding Italian scholar in educational practice was facilitated by the Ukrainian model of the Montessori school for children aged 1.5 to 9 years (Radul *et al.*, 2023). Its main features were digital technologies and multilingualism. Particular attention was paid to finding effective ways to preserve and strengthen children's health and ensure their artistic and aesthetic development. Ukrainian preschool educational institutions that operate according to the Maria Montessori system (Radul *et al.*, 2023) adhere to a unique division into classes: infant (children under 1 year old), toddlers (children aged 1 to 3 years) and preschoolers (children aged 3 to 6 years). Each group/class is characterised by the development of a specially prepared Montessori environment. It is divided into zones according to the areas of child development and includes:

- the practical life area;
- sensory development area;
- the area of speech development;
- the area of mathematical development;
- space area or culture area.

In each zone, children can independently choose the type of activity and material, work at their own pace and explore. About 90% of the time is devoted to independent work with educational material. Noticing that a child has chosen material for the first time to implement their own

idea of activity, the Montessori teacher offers them a plan of action with it. Great importance is attached to the performance of sensory education tasks. Specially designed teaching materials and games are used to develop the senses, which are the basis for further mental development. "Golden" didactic material is focused on helping children learn sensory standards, independently perform sensory and intellectual tasks, and conduct research, during which, through trial and error, the growing personality draws elementary conclusions about the material and social world (Hopta, 2020). The efficiency of social interaction skills development is ensured by the functioning of mixed-age groups. Children aged 3 to 6 are in the same group/class. Younger children learn from older children how to behave in everyday situations, while older children develop leadership skills (Radul *et al.*, 2023). An individual approach to children is equally important. Maria Montessori's method considers the individual needs and interests of each child, allowing them to develop at their own pace and maximise their potential (Yakobchuk, 2023).

The results of the study (Radul *et al.*, 2023) made it possible to identify the areas in which the Maria Montessori method is being implemented in Ukraine:

- 1) curriculum development and adaptation;
- 2) the organisation of mixed-age groups, which allows Montessori teachers to observe children's nature and understand the laws of their psychophysical development.

In such groups, older children learn to help younger ones, while younger children gain life experience by observing the work of older children;

3) creating and maintaining an environment rich in developmental materials;

4) holding unconventional classes and lessons using the Maria Montessori method;

5) conducting extra classes in addition to the compulsory ones: theatrical performances, “illustrated classes” in English, use of digital resources;

6) developing the basis of a healthy lifestyle, which involves teaching children to treat nature and all living things on earth with respect;

7) establishing a partnership-based interaction with parents includes creating shared rules for a democratic and humane environment for the upbringing of the child both at home and in the educational institution; organising seminars to introduce parents to the fundamentals of Maria Montessori’s philosophy and pedagogy; holding parent meetings in various forms and formats (lectures with role-playing games, discussions, experience-sharing among families); familiarising parents with new pedagogical and psychological literature; enabling parents

to attend lessons conducted according to the Montessori system; and providing individual consultations with teachers and psychologists.

Maria Montessori’s method has gradually established itself as the most well-known alternative pedagogy in France and Europe. As of early 2025, there are approximately 200 preschool institutions in France that apply the Montessori method, regardless of whether they are accredited by the Association Montessori Internationale (AMI) (Association Montessori Internationale, n.d.). In France, preschool institutions operating based on Maria Montessori’s pedagogy have varying degrees of independence and managerial autonomy. Some are fully independent, but most are united within a single network. Examples include mini-institutions (mini-nurseries) belonging to the “Baby Trees” network, which are characterised by a harmonious combination of the Maria Montessori method and language learning (implementing a bilingual approach), as well as micro-Montessori crèches, where the Maria Montessori method is adapted to bilingual or eco-oriented approaches (Montessori pour tous, n.d.). For illustration, we provide a map showing the operation of Montessori institutions in the city of Paris, France.

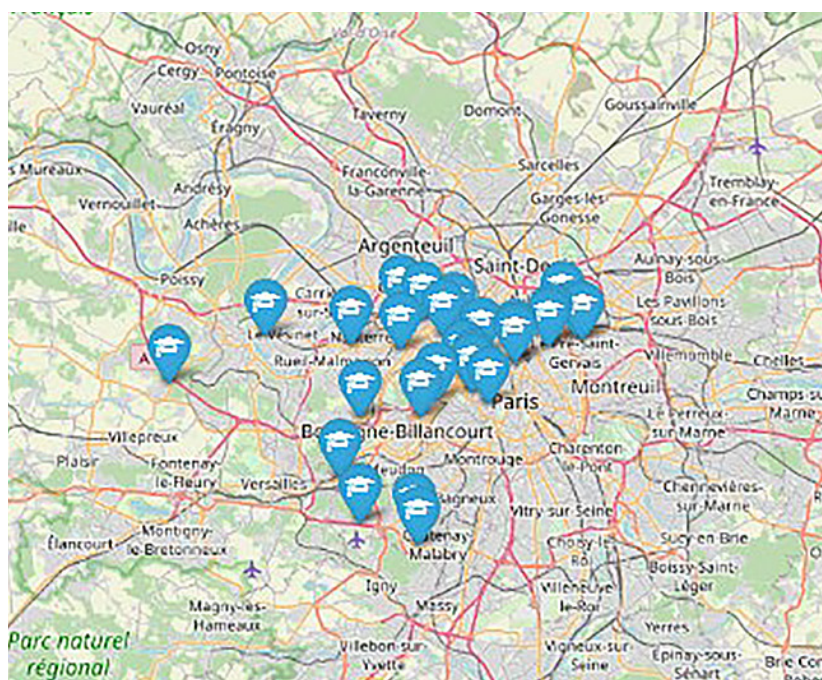


Figure 6. Map of Montessori Institutions Operating in France (Paris)

Source: List of every School Paris France (n.d.)

As can be seen in Fig. 6, Montessori institutions are popular and their number satisfies parents’ demands for access to quality preschool education for their children. Children are supervised by teacher-facilitators. The distribution of children by number in groups is as follows: in the Nido group, there is one teacher for every five children; in the Grand Nido group, there is one teacher for every seven children and one teacher for every eight children in the children’s community

(considered a type of group). In addition to teachers, a therapist who monitors psychomotor development, a nurse, a hygiene specialist, and an administrator are also involved in the children’s development. This team of qualified specialists is capable of ensuring the functioning of a developmental Montessori environment (Le Centre Préscolaire Montessori, n.d.).

The French Montessori Association/Association Montessori de France (AMF) was founded in 1950 by

Maria Montessori together with Mario Montessori and Georgette Bernard. It has the status of an association of general interest under the 1901 law, and since its foundation has been an affiliated member of the Association Montessori Internationale (AMI), which began operating in 1929 (Association Montessori Internationale, n.d.). It is independent of any political or religious movement. The AMF (*in French*: L'Association Montessori de France) is part of the international Montessori movement approved by AMI and training centres for teachers operating in France (l'Institut Supérieur Maria Montessori (ISMM) and Le Centre de Formation Montessori Francophonie (CFMF) (Association Montessori de France, n.d.).

In 2024, the AMF developed a new Charter for Montessori institutions in France to promote the development of good practices in institutions in accordance with Maria Montessori's educational philosophy. Educational institutions that sign the charter must:

- ➔ ensure that the Montessori institution complies with the criteria set by the International Montessori Association for children, families, institutions and supervisory and/or control bodies;
- ➔ ensure ethics and integrity through ethical practices and standards of moral behaviour, such as honesty, fairness and compliance with laws;
- ➔ encourage transparency in communication within the organisation and with external stakeholders;
- ➔ promote professionalism through quality standards, best practices and competence that every member must adhere to, helping to improve the reputation of the profession and Montessori institutions or companies;
- ➔ reduce risks by establishing clear rules to prevent abuse, inappropriate behaviour and legal or financial risks (Association Montessori de France, n.d.).

Educational institutions that sign this charter must have more than three years of experience, after which they can voluntarily commit to continuously improving the quality of education and respecting the values of Maria Montessori. Montessori institutions focus on developing children's autonomy (independence), senses, self-organisation, concentration, satisfaction from effort, and self-esteem. This is achieved through adherence to a consistent routine, ample opportunities for sensory improvement, speech development, provision of conditions for optimal motor activity, and the formation of social interaction skills.

The environment in a Montessori preschool is a reflection of the world of a child aged 2,5 to 6 years. The space is organised according to their physical abilities (height, body size, etc.), pace of development and interests. In a Montessori kindergarten, high chairs, tall mirrors and large cabinets are prohibited as they limit children's autonomy. The environment develops as children grow. In creating the environment of an educational institution, teachers strive for visual harmony, which encourages them to use functional furniture, avoid excessively bright colors, and carefully organise and plan order. This corresponds to Maria Montessori's idea that in a children's environment

there should be a place for everything, and everything should be in its place (Montessori, 1957).

A Montessori preschool is designed in such a way that young children can move freely without the need for excessive control over their activities. The educational environment is arranged for the child, providing them with freedom within certain boundaries. This means giving the child a degree of freedom of action and stepping back voluntarily to encourage the independent development of their natural potential, while also paying attention to any difficulties or obstacles that may require intervention. Children work at tables or on small rugs laid out on the floor – wherever they naturally feel comfortable. Learning and material exploration in a Montessori setting takes place “through discovery,” by engaging children in interesting activities that bring them genuine enjoyment – not merely through the teacher's verbal instruction. For example, in a Montessori preschool, a unit of measurement is something the child can hold in their hand, not just a number written on a piece of paper. It is a space that influences the development of motor skills, encourages experimentation and exploration, and all of this takes place “at the very heart of a calm, spacious, and structured environment” under the guidance of a caring Montessori teacher (Le Centre Préscolaire Montessori, n.d.).

Children in Montessori preschools understand that their environment is divided into several distinct areas. They freely choose the activity area they are interested in and interact with the materials available there, naturally transitioning to the appropriate area depending on the activity they have chosen. These areas typically include a play area, reading area, eating area, recreation area and others. All activities are based on considering each child's natural rhythm and a prepared environment, and are aimed at developing children's independence, sensory skills, fine motor skills, and self-confidence. Maria Montessori describes the hand as the instrument of the intellect. It holds immense neurological potential. A child should be able to move and hold each object without adult interference. The ultimate goal is to guide the child toward intellectual and physical autonomy. Activities are carefully analysed and broken down into small, sequential steps so that the child can effectively carry out a series of complex actions. The content of these activities includes essential life skills that enable the child to achieve an age-appropriate level of independence and autonomy. In the area of practical life, for example, children perform tasks such as transferring water or grains using pitchers, spoons, and bowls. They acquire cultural and hygiene-related skills: learning to dress themselves, fasten buttons and zippers, tie shoelaces, wash their hands, tidy up designated areas, set the table, care for plants, and more. Practical life exercises help children develop, among other things, self-care, care for the environment, and respect for moral and ethical norms.

The teacher must have a full understanding of the concept of the child's absorbent mind up to the age of three. Through sensory activities, children develop the

five senses (sight, touch, hearing, taste, and smell). This is achieved by engaging with specially designed didactic materials such as the Pink Tower, graded cylinders, textured fabrics or objects (e.g., rough, smooth, soft), sensory bottles, scent boxes, and tactile trays for hands-on activities using materials like sand, rice, or modeling clay. Sensory materials consist of sets of objects arranged in a specific order. Intuitively, the child grasps the sense of order inherent in the materials and learns to classify and organise objects by size, volume, texture, color intensity, length, sound intensity, and more. Examples include cylinder blocks, geometric solids, color tablets, and the geometric cabinet (Montessori, 1957). The development of both fine and gross motor skills takes place through the organisation of physical activities using tunnels, hoops, and balance beams. A wide variety of materials are also used, such as puzzles, inset shapes (figures for fitting into boxes), and beads for stringing and sorting by various categories. Children practice tasks such as simple cutting, grating nutmeg, transferring seeds using containers of different sizes, pouring water, cleaning plant leaves, and more.

The curriculum is bilingual, giving children the opportunity to learn two languages simultaneously – French and English. This bilingual learning environment is supported by three teachers: one French-speaking, one English-speaking, and one bilingual. Using Montessori materials, children learn to read and write in both languages. In some institutions, a third language – such as Spanish – is also introduced (Association Montessori de France, n.d.). To develop vocabulary and provide indirect preparation for reading and writing, various tools are used: nomenclature cards, songs (including nursery rhymes), stories, picture book readings, a sound box, etc. Reading instruction is offered without pressure to children who have reached sufficient psychological readiness in terms of spoken language, sound recognition, and word formation. In fact, writing precedes reading in the sense that the child first builds words using familiar sounds and only then progresses to reading. The method used is essentially sensory in nature. Through language materials, the child discovers the mechanism of reading while simultaneously grasping the meaning of words within sentences. This approach aligns with the child's natural interest, which depends on individual developmental readiness, but typically occurs around the age of five. It reflects Maria Montessori's scientific approach, in which the child learns to write not by repeating rows of letters, but by practicing the mechanisms of writing (Montessori, 1957).

Another key conceptual idea of Maria Montessori is that the development of children's observation skills and perception of the world is supported through elements of exploratory and investigative activities. This approach is implemented through observing objects in nature (such as getting to know plants, animals, and the seasons), engaging in gardening (planting seeds, watering plants), and sensory discovery of natural elements (like leaves, shells, sand, and water), as well as through simple scientific

experiments, for example, observing how different objects or materials behave in water. To support children's free expression of their creative potential, artistic and creative activities are organised, including drawing, coloring, modeling, collage-making, and other forms of visual art. This is further enriched by musical and rhythmic activities, such as exploring musical instruments (maracas, tambourines, xylophones) and learning how to play them, singing rhythmic songs and rhymes, and discovering movement and rhythm through independent choreographic expressions. Special attention is also given to organising rest time and helping children learn to manage their energy. Therefore, the daily schedule includes time for naps, a reading corner, breathing exercises, and other calming activities (Association Montessori de France, n.d.). The conducted research has shown that the implementation of Maria Montessori's pedagogical concept in preschool education in Ukraine and France shares both common and unique features shaped by national context, cultural traditions, and educational approaches. In Ukraine, the development of Montessori pedagogy takes place within both state and private initiatives, with an emphasis on multilingualism, digitalisation, and the preservation of children's health. In France, this system has gained broader institutional recognition, operating within officially accredited educational networks and adhering to a developed national charter. In both countries, the key factors for the efficiency of the Montessori method remain the creation of a prepared environment, individualised learning, the development of autonomy and sensory experience, as well as active engagement with parents.

Features of professional training for specialists working in preschool institutions operating under the Maria Montessori system in Ukraine and France

Ukraine. An important aspect of Montessori institutions' work is the training of teachers. This activity is carried out by the All-Ukrainian Montessori Teachers Organisation (AUMTO), which started its work in 1997 with the goal of popularising Maria Montessori's pedagogical concept and promoting the implementation of method in educational institutions across Ukraine. The organisation also provides informational and methodological support to Montessori institutions concerning the operation of similar educational establishments within the international education system. The organisation includes the Ukrainian Montessori Centre (UMC), which is the leading center for Montessori teacher training in Ukraine. Its programs have received international accreditation from MACTE (the Montessori Accreditation Council for Teacher Education), indicating their compliance with international quality standards. The UMC is also a collective member of the All-Ukrainian Association of Montessori Teachers (Ukrainian Montessori Centre, n.d.).

The Ukrainian Montessori Center offers professional training and diploma certification in the following programs: "Infant and Toddler" (from birth to 3 years old) and "Early Childhood" (from 3 to 6 years old), as well as training

Montessori Leadership Program – designed for administrators, school directors, and heads of early childhood development centers. All programs are based fully on the principles of Maria Montessori's philosophy and pedagogy. Program participants at the Center receive comprehensive training in the philosophy and methodology of Maria Montessori, observation techniques, classroom management, child development, practical life activities, sensorial education, mathematics, language development, cosmic education, the organisation of the educational process in toddler classrooms, toddler didactics, and the management of Montessori institution. Aspects of Montessori teacher preparation are also supported by the public organisation "Montessori UA" (Montessori Ukraine), which has been actively working since 2022 to promote Montessori education in Ukraine. The organisation collaborates with government agencies, the UN Office for the Coordination of Humanitarian Affairs, as well as local and international partners to advocate for the inclusion of Montessori programs in public preschools, schools, universities and children's homes (Montessori UA, n. d.).

The Ukrainian branch of the Association Montessori Internationale (AMI) facilitates the recognition and integration of the Ukrainian Montessori community into the international network. This branch is one of the oldest and most respected Montessori organisations in the world, founded by Maria Montessori herself. The existence of such a branch demonstrates the integration of the Ukrainian Montessori community into the international network. According to the Ukrainian Montessori Centre (Ukrainian Montessori Centre, n.d.), the general components of Montessori teacher training programs in Ukraine typically consist of two main parts:

1. The academic (theoretical) part, which includes the following components:

Philosophical foundations of the Montessori method, based on a detailed study of Maria Montessori's life and scientific works, views on the nature of the child, principles of self-development, and the role of the adult and prepared environment in the development of the child's personality;

Child development psychology, which includes the study of sensitive periods of development, psychological characteristics of children in different age groups (0–3, 3–6, 6–12 years), and theories of child development;

Features of the prepared environment, which explain the principles of creating and organising Montessori classrooms, their components and the requirements for materials and their arrangement.

Presentation of Montessori materials, aimed at an in-depth study of all types of Montessori materials for the respective age group, their purpose, sequence of use, control, and error correction. This includes:

- Materials for *Practical Life*, through which skills in self-care, care for the environment, and motor development are developed;

- *Sensorial materials*, which include materials for developing sight, hearing, touch, taste, smell, and stereognostic perception;

- *Language* materials, aimed at developing speech, reading, and writing skills;

- Mathematical materials (*Matematics*), which develop concepts of number, logical-mathematical operations, and geometry;

- Materials that implement the tasks of *Cosmic Education* in the context of studying elements of geography, history, biology, astronomy, physics, and art.

The role of the adult (teacher), which involves developing skills in observing the child's development, keeping observation records, adhering to the principles of non-violent communication, and creating conditions that support each child's independence;

Classroom management and group dynamics, preparing for work in multi-age groups, conflict prevention, effective conflict resolution strategies, and maintaining order.

2. Practical part (internship), which includes the following components:

Independent work with materials, which develops skills in presenting didactic materials based on mastering the methodology of their use in the Montessori environment;

Observation, which provides practice in recording the child's developmental changes within the prepared Montessori classroom environment;

Practical work (internship), which involves direct work with children under the supervision of an experienced Montessori teacher. This can be either full-time or part-time, depending on the curriculum. The internship is mandatory for obtaining international certification;

Developing Montessori materials, which complements the content of the Montessori teacher training program with practical sessions on creating or repairing Montessori materials;

Seminars and discussions, which ensure interactivity during regular meetings to review observation results, identify challenges encountered during direct involvement in the educational process, and facilitate the exchange of experience.

The challenging circumstances faced by Ukrainian educators have prompted the creation of flexible learning options. Students can choose the duration of the theoretical phase of training – either a one-year or two-year course – and combine academic study with their primary job. During the practical phase, they can select an internship model: a one-year mentorship with a master teacher or an independent two-year internship. A blended learning format combining remote and in-person instruction has been developed and implemented, maintaining the required number of hours and ensuring the quality of the educational process.

France. One of the most important organisations providing Montessori teacher training is the Association Montessori de France (AMF), which was mentioned in the description of preschool institutions' activities in France (Association Montessori de France, n.d.). Among the main tasks of AMF are:

- promoting the philosophy of Maria Montessori, which views education as "helping life" in environments adapted to the needs of each child;

- supporting existing Montessori schools and teachers;
- organising congresses, colloquiums, conferences and professional development seminars;
- developing partnerships with educational stakeholders and research groups.

Although Association Montessori Internationale (AMI) is an international organisation, it also plays a key role in France, as AMF is its affiliated organisation. AMI is responsible for overseeing the rights to publish Maria Montessori's works and for producing authorised Montessori didactic materials. It also organises training sessions for Montessori teachers worldwide (Association Montessori Internationale, n.d.). In addition to these main associations, there are educational institutions in France that may be either independent or affiliated with AMF/AMI. Some of these also offer Montessori teacher training courses, such as the Institut Supérieur Maria Montessori (ISMM) and the Centre de Formation Montessori Francophonie (CFMF), both of which provide Montessori teacher training (Institut Supérieur Maria Montessori, n.d.; Le Centre de Formation Montessori Francophonie, n.d.).

Since 1998, the Maria Montessori Higher Institute (ISMM) has been training preschool teachers, assistants, directors of educational institutions, parents, and project managers involved in implementing Maria Montessori's scientific pedagogy, covering all age groups from early childhood to adulthood (Institut Supérieur Maria Montessori, n.d.). In September 2015, a single official training course was developed for teachers working with children under the age of three. The Maria Montessori Higher Institute (ISMM) offers training in three areas covering preparation for working with three age groups: 0-3 years, 3-6 years, and 6-12 years. They are designed for people who wish to become Montessori teachers certified by the Association Montessori Internationale (AMI), with a course that combines theory, practice and immersion in the field (Association Montessori Internationale, n.d.). Graduates acquire the skills necessary to manage a kindergarten in accordance with Maria Montessori's principles (working with teaching materials, managing activities, monitoring activities, etc.). The Maria Montessori Higher Institute (ISMM) also offers short-term and certified training courses: introduction to Montessori pedagogy (orientation courses), training modules to become a teacher's assistant in a Montessori environment, training for Montessori school principals and advanced training courses for experienced teachers (Institut Supérieur Maria Montessori, n.d.).

To work in a preschool educational institution that operates on the principles of Maria Montessori's pedagogy, applicants are to meet general qualification requirements, including having a special diploma in education that allows them to teach young children (Institut Supérieur Maria Montessori, n.d.). This may be:

- professional qualification certificate (Le CAP Accompagnant Éducatif Petite Enfance (AEPE));
- state diploma in childcare assistance (Le Diplôme d'État d'auxiliaire de puériculture (DEAP));

➤ document confirming participation in the competition for a specialised territorial agent (Agent Territorial Spécialisé des Écoles Maternelles). The ATSEM competition is open to graduates of CAP Accompagnant Éducatif Petite Enfance (CAP AEPE) or parents of at least three children. It provides access to civil servant status (territorial civil service) and employment in a nursery school.

➤ state diploma in early childhood education (Le Diplôme d'État d'Éducateur de Jeunes Enfants (DEEJE));

➤ state diploma in childcare (Diplôme d'État de Puériculture (DEP)). This is for a nurse who specialises in caring for infants and preschoolers in both medical and social contexts.

The relevant documents certifying readiness to work in Montessori institutions, offered by specialised organisations, in particular AMI, are not mandatory but are preferable. In practice, early childhood education professionals must have a state diploma (CAP AEPE, EJE, AP, etc.) as well as a diploma or certificate from the International Montessori Association (AMI) given by ISMM or another AMI-approved organisation. The Montessori approach for children from birth to six years old is a training course offered as a continuing education program. It includes 60 hours of classes and two days of observing children, for a total of 69 hours. After this theoretical training, an additional module, "Montessori Assistant for Children from Birth to 3 Years," is offered. This practical component includes 30 hours of classes at the training center and is also offered as a continuing education program (Le Centre de Formation Montessori Francophonie, n.d.).

The organisation of the learning process meets modern requirements and involves classroom-based format through the implementation of the following forms of work: training sessions, exchange of practical experience, demonstration of Maria Montessori's approaches in the professional activities of preschool teachers, organised observations, solving pedagogical situations, giving feedbacks, and use of an e-learning platform, including interactive modules (watching videos, multiple-choice tests, reading texts, listening to audio, etc.). Theoretical training, the duration of which will depend on the chosen direction, is reinforced by a mandatory practical component directly in a Montessori environment. Upon successful completion of each part of the program, graduates receive a certificate confirming their readiness to work according to the principles of Maria Montessori's pedagogy. The training program (Institut Supérieur Maria Montessori, n.d.) includes the following components:

➤ Understanding the basics of Montessori pedagogy: introducing the fundamental principles of Maria Montessori's approach and philosophy of child development, key concepts, in particular, the absorbent mind, sensitive periods, the prepared environment, and the role of the adult;

➤ Developing a deep understanding of the psychology of children aged 0 to 6: awareness of the specific characteristics and needs of children in this age group; key stages of sensory, motor, cognitive, emotional, linguistic, and social development;

➔ Mastering observation as a teaching tool: understanding the importance of observation in individual and collective support for children, acquiring skills for free and objective observation of children, their needs, and stages of development; using observation to stimulate team thinking;

➔ Basic requirements for creating an environment conducive to child development: adherence to a clear division into zones that correspond to a specific type of activity and help the child form certain skills aimed at developing internal motivation and self-discipline;

➔ Supporting child development with care and respect: developing the ability to identify and remove obstacles that hinder the child's natural development; supporting the child's spontaneous activity through cooperation and helpful assistance.

The professional training of Montessori teachers in Ukraine and France is based on the common ideological principles of Maria Montessori's philosophy, but there are differences in the organisational and structural format. In Ukraine, national associations and accredited centres, which play a leading role in training specialists, in particular the Ukrainian Montessori Centre, which provides both academic and practical training, considering current challenges and flexible forms of learning. In France, teacher training is coordinated by the AMF and AMI associations, as well as specialised institutions such as ISMM, which offer multi-level programmes with an emphasis on integrating philosophical, psychological and methodological aspects

in the context of practical experience. Both countries pay attention to the role of observation, sensitive periods of development and the creation of a prepared environment as key factors for effective interaction with children. This approach contributes to the formation of highly qualified specialists capable of implementing Maria Montessori's pedagogy in the context of modern preschool education.

Comparative analysis of an analytical review of the implementation of Maria Montessori's concept in preschool education institutions in Ukraine and France

Summarising the information on the implementation of Maria Montessori's scientific pedagogy method in the preschool education systems of Ukraine and France, we note that the governments of these countries are doing everything possible to ensure the quality of preschool education through the study and use of effective educational methods. Both countries are characterised by ensuring broad opportunities for early childhood and preschool children for their systematic development in public or private institutions, which parents can choose. The high demand from parents for Montessori kindergartens drives the search for effective ways to integrate Maria Montessori's approaches to child development with national standards and requirements for organising the educational process focused on children's life skills acquisition. The experience of Ukraine and France in implementing the key provisions of Maria Montessori's concept is summarised in Table 2.

Table 2. Comparative characteristics of the implementation of Maria Montessori's concept in the preschool education systems of Ukraine and France

Key principles of the concept	Name of the country	
	Ukraine	France
Popularity	more than 50 private institutions	more than 200 establishments, mostly private
Curricula and approaches	➔ zoning of the educational environment (5 main zones); ➔ integration of cultural and national characteristics into the content; ➔ autonomy in choosing the programme; ➔ names of groups/classes: infant, toddler and early/preschool childhood; ➔ teacher-facilitator	➔ zoning of the educational environment (5 main zones); ➔ adaptation of classes to the French context; ➔ compliance with the national curriculum; ➔ names of groups/classes: nido, grand nido, children's community; ➔ teacher-facilitator
Language of teaching	Ukrainian	bilingual approach (French–English)
Teacher training	There are programmes for the Montessori teachers' special training	There are special accredited AMI/AMF and standardised training programmes for Montessori teachers to work with different age groups
Functioning of Montessori Communities	All-Ukrainian Organisation of Montessori Teachers, Public Organisation "Montessori UA" (Montessori Ukraine), Ukrainian Montessori Centre, Branch of the "Association Montessori Internationale" (AMI) in Ukraine	Association Montessori de France (AMF), Association Montessori Internationale (AMI), Institut Supérieur Maria Montessori (ISMM) – Maria Montessori Higher Institute, Le Centre de Formation Montessori Francophonie (CFMF) – Francophonie training centre

Source: developed by the authors

According to the results presented in Table 2, Montessori institutions operate both in Ukraine and France. The difference in numbers can be explained primarily by the fact that in France, the development of Montessori institu-

tions began in the early 19th century, while in Ukraine it began in the late 19th century. In Ukraine, the development of a network of Montessori institutions is a private initiative (it should be noted that the state strongly supports such

initiatives, stimulating the development of private business), while in France, the state is actively studying the educational effects of Maria Montessori's pedagogy and possible ways to increase the number of state institutions, one of which is state Montessori groups within general education schools. The basic principles of Maria Montessori's scientific pedagogy are universal, but differences in approaches and curricula are determined by national education systems and the level of development of the Montessori movement in each country. Common to both countries are:

- creating a prepared environment as a specially organised space for the child's independent development in interaction with didactic material in practical activities;
- supporting mixed-age groups for the social and emotional development of children aged 3-6 through joint learning;
- promoting the child's freedom to choose the type of activity and their own pace of work as the basis for developing their internal motivation for independence and self-development;
- changing the role of the teacher as a mentor and facilitator who guides the child's development in independently learning about the environment, discovering new things, and making initial generalisations about the surrounding reality.

Although the universal Montessori curriculum covers five main areas: practical life skills, sensory development, language development, mathematics and logic, and culture (elements of geography, history, biology, art, and music), there are national differences in Ukraine and France. For example, in some Ukrainian Montessori centres, elements of national culture, language and history may be integrated into the curriculum in the field of "Culture", and there may also be projects aimed at developing social-based skills, empathy and critical thinking. French institutions may focus on the French language and culture, adapting materials and lessons to the French context. In Ukraine, private Montessori institutions are oriented towards international Montessori standards, but have greater autonomy in choosing teaching materials, approaches and programmes compared to France, where even in state Montessori groups (in comprehensive schools), teachers must consider the national curriculum. There are also differences in the names of educational groups/classes: infant, toddler and early/preschool (in Ukraine) and nido, grand nido, children's community (in France). Another important aspect of the concept is the language of instruction. In Ukraine, the language of instruction is Ukrainian, with many institutions offering additional English language classes. In France, Montessori institutions support the national trend towards early foreign language learning, so almost all institutions are bilingual (French – English).

Both countries have implemented Maria Montessori's idea of the need for special training for teachers working in a Montessori environment. In Ukraine, a tradition of training Montessori specialists in Montessori centres (e.g. the Ukrainian Montessori Centre) is emerging. France has a

long history of specialised training programmes for Montessori teachers, often linked to the Association Montessori de France (AMF) and the Institut Supérieur Maria Montessori (ISMM). The level and accreditation of these courses may vary, but in general, both Ukrainian and French Montessori teachers undergo similar intensive training, which consists of compulsory theoretical (a combination of face-to-face and distance learning) and practical (observation and activities directly in Montessori groups) components. Both countries are characterised by the creation of national associations supporting the Montessori movement at the state level in cooperation with international partners. There are several Montessori associations and organisations in Ukraine that are engaged in the dissemination and development of Maria Montessori's pedagogy in the educational sphere: All-Ukrainian Organisation of Montessori Teachers (AUOMT), Public Organisation "Montessori UA" (Montessori Ukraine), Ukrainian Montessori Centre (UMC), Branch of the Association Montessori Internationale (AMI) in Ukraine. In France, there are several key organisations involved in implementing Maria Montessori's pedagogical concept in the national education system and supporting initiatives by educational communities to promote and develop Maria Montessori's pedagogy: Association Montessori de France (AMF), Association Montessori Internationale (AMI), Institut Supérieur Maria Montessori (ISMM) and Le Centre de Formation Montessori Francophonie (CFMF). Despite possible differences, the fundamental essence of Montessori pedagogy – child-centredness, independence, learning through experience and the creation of a prepared environment – remains unchanged in both Ukraine and France. The differences most often lie in the degree of state support, integration into the national education system and adaptation to local cultural contexts.

CONCLUSIONS

The initiated research aimed at determining the essence of the conceptual foundations of Maria Montessori's pedagogy and the implementation of its relevant principles in the preschool education system of Ukraine and France, the goal of which has been achieved and the tasks completed, gives grounds for making appropriate generalisations. In the course of achieving the research objective, an analysis was conducted of the main principles of Maria Montessori's concept concerning the organisation of the educational process for early childhood and preschool-aged children, along with their psychological and pedagogical interpretation regarding the provision of quality preschool education, using Ukraine and France as case studies. The study of the scientific and source base helped to determine the specifics of training teaching staff to work in institutions operating under the Maria Montessori system and to substantiate the role of the teacher in the development of a growing personality in the Montessori environment.

The completion of the first research objective made it possible to outline the pedagogical theory's principles and key ideas of educational practice offered by Maria Montessori

that hold significant value for contemporary preschool education. These ideas focus on the development of an independent, autonomous personality capable of applying their potential in various types of childhood activity, while encouraging recognition of one's individuality and uniqueness. The second research task involved outlining the active application of Maria Montessori's concept in the practice of organising the educational process for preschool children in Ukraine and France, in particular common features include: adherence to the basic principles of Maria Montessori's "scientific pedagogy" method regarding the composition of age groups, the creation of a special developmental environment using authentic didactic materials, and the readiness of teaching staff to implement Maria Montessori's philosophy in their professional activities. The recorded differences are as follows: the names of classes/groups for children (different in both countries), involvement of the public (in France) or private sectors (mainly in Ukraine) in the functioning of Montessori institutions, and the use of a bilingual approach in educational activities (typical for France).

The third research task was closely related to the completion of the previous (second) task and allowed us to summarise the results regarding the specifics of training personnel to work in institutions operating under the Maria Montessori system in both countries (Ukraine and France). It involves the implementation of a two-component curriculum, which includes the obligatory study of both the theoretical part and the practical part, obtaining the relevant educational document (certificate, diploma, etc.) with children of a specific age category, and continuous professional

development (participation in Montessori communities, scientific and methodological events, etc.). Prospects for further historical and pedagogical research lie in studying the educational directions of Maria Montessori's system in the context of quality standards for preschool education by age category: early age (up to three years); younger, middle and older preschool age (from three to six (seven) years). It is expected that this will make it possible to update and diversify the content of educational material and enrich the arsenal of effective methods in the organisation of the educational process in preschool educational institutions.

ACKNOWLEDGEMENTS

We express our sincere gratitude to both international and Ukrainian colleagues (see the reference list below) for their scholarly contributions to the study of Maria Montessori's legacy and conceptual foundations. We also thank the practitioners of institutions that follow the Montessori system for implementing the progressive psychological and pedagogical ideas of the outstanding Italian scholar and founder of early childhood education institutions. Special thanks go to the founders of public Montessori organisations in various countries for their support and promotion of Maria Montessori's scientific method.

FUNDING

None.

CONFLICT OF INTEREST

None.

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Концепція Марії Монтессорі в дії: впровадження в закладах дошкільної освіти України і Франції

Анотація. Актуальність проведеного дослідження реалізує сучасні тренди щодо пошуку дієвих шляхів підвищення якості дошкільної освіти. Дослідницька проблема передбачала з'ясування провідних концептуальних ідей теоретичного й практичного доробку італійської вченої Марії Монтессорі та їх дієвості в системі дошкільної освіти різних країн. Мета наукового пошуку спрямовувалась на здійснення аналізу та інтерпретації основних положень концепції Марії Монтессорі щодо організації освітнього процесу з дітьми раннього і дошкільного віку та їх впровадження в дошкільній освіті України і Франції, а також на обґрунтування специфіки підготовки кадрів для роботи в закладах Марії Монтессорі у цих країнах. Для досягнення мети дослідження використано комплекс теоретичних методів: аналіз і синтез, хронологічний метод, педагогічна історіографія, конкретизація, систематизація, порівняння, узагальнення і прогнозування. У статті окреслено провідні ідеї педагогічної теорії і освітньої практики Марії Монтессорі, які є основоположними для сучасних змін, що відбуваються в світовому вимірі дошкільної освіти; схарактеризовані її погляди щодо пріоритетних принципів розвитку особистості, які підкреслюють самоцінність дошкільного дитинства. Виокремлено ключові засади концепції вченої в контексті організації освітнього простору закладів для дітей раннього і дошкільного віку, що функціонують в Україні та Франції; визначено спільне та відмінне в їх діяльності щодо застосування спадку наукової педагогіки Марії Монтессорі: дотримання основних положень, створення спеціально підготовленого середовища, використання автентичного дидактичного матеріалу та забезпечення професійності кадрів. З'ясовано специфіку підготовки педагогів для роботи в Монтессорі-закладах обох країн, що ґрунтується на реалізації програми, яка містить два обов'язкові складники: теоретичний і практичний. Наукова цінність і практичне значення дослідження вбачається в поглибленні змісту освітнього компонента «Історія дошкільної педагогіки» для здобувачів спеціальності А2 Дошкільна освіта та освітнього компонента «Іноземна мова за професійним спрямуванням» для здобувачів освіти педагогічних спеціальностей

Ключові слова: історія дошкільної педагогіки; науковий підхід; Монтессорі-метод; діти раннього і дошкільного віку; розвиток особистості; українська система дошкільної освіти; французька система дошкільної освіти