

# Educating to democracy and critical thinking: the Norwegian kindergarten model

Francesca Granone<sup>a</sup>, Thomas Hammerø Lund<sup>a</sup>, Enrico Pollarolo<sup>b</sup>, Simona C. S. Caravita<sup>bc</sup>

<sup>a</sup> Department of Early Childhood Education and Care, University of Stavanger (Norway)

<sup>b</sup> Norwegian Centre for Learning Environment and Behavioural Research in Education, University of Stavanger (Norway)

<sup>c</sup> Department of Psychology, Catholic University of the Sacred Heart (Brescia, Italy)

## Abstract

In order to educate children to become an active part of the society, it is necessary to help them to understand the importance of values and attitudes funding the democratic society. These include the sense of community, the importance of everyone, the need of thinking critically in every situation, the ability of choosing, the relevance of expressing ideas and opinions.

This education must have its roots in early childhood, through a process that includes not only the presentation and explanation of these values, but also their experimentation through daily practice. In Norwegian kindergartens all the activities are inspired by these values that are proposed by the Norway's regulations as funding the educational approach of the early age education institution. In this perspective, among the pedagogical methods, many Norwegian kindergartens draw inspiration from the Reggio Emilia method, but adapted to the Nordic context, in order to address the goal of educating children to participate actively to the democratic society since early age. The model emerging from this effort represents an innovative example of how children can be educated to being responsible members of the society since such an early age.

## The impact of “medvirkning” in the Norwegian kindergarten system

In Norway, the kindergarten is regarded as an important service and context by most people and by the authorities. A keystone of the Norwegian educational policy is that children and young people have an equal right to education, regardless of gender, special need, social and cultural background or where they live, starting from the kindergarten age. It is considered a

crucial factor in the integration into society of children and families of ethnic minorities, and it is recognized that it has positive consequences in education to inclusion and equality<sup>1</sup>.

At the base of this approach is the idea that all children, regardless of origins or attitudes, are competent in every single aspect. A specific word has been introduced to describe this concept and it is “medvirkning”. Directly translated to English, “medvirkning” means “cooperation”, “participation” and “assistance”, but in the modern Norwegian kindergarten context it means much more. “Medvirkning” is an existential way of viewing the whole child and it enhances the way in which teachers talk to children, how they ask them questions, how they explain the world around them, accompanying children in their discoveries, rather than teaching them. In a Norwegian kindergarten context, “medvirkning” has roots in another specific word that is “anerkjennelse”. This word, directly translated to English, means “acknowledgement”, “recognition” and “appreciation”, and it refers to the teacher’s ability to listen to and share the other person’s world of experience for a moment<sup>2</sup>. In accordance with this perspective, the national Framework plan for kindergartens<sup>3</sup>, states that the kindergarten should encourage children to express their views, giving them the opportunity to actively participate to and to influence their daily life in kindergarten. Teachers are committed to take into consideration children’s age, experiences, characteristics, needs and maturity when engaging them in constructive conversations and interactions Teachers should be able to establish with children a relationship based on empathy, trust and reciprocity and to have the ability to capture and decode both verbal and non-verbal messages from the pupil, as described by Simeone in 2018<sup>4</sup>. This approach is important also in the relationships between kindergarten and children’s families too<sup>5</sup>, and this is accordance with the national framework that stresses the relevance of the relation between family and educational institutions<sup>6</sup>.

The term “medvirkning” is also used in relation to the idea of democracy, because it is used to recognize that the individual voice is part of a larger community. This can be better understood reading an example that Sand<sup>7</sup> describes in relation to participation and inclusion of Somali ethnic minority:

“When you choose a content that is identity creating for the Somali children, the same content will contribute to an expansion of perspective and way of seeing the world both for the other minority language children and for the children with majority language background”.

---

<sup>1</sup> Haug, K. H., & Storø, J. (2013). Kindergarten – a universal right for children in Norway. *International Journal of Child Care and Education Policy*, 7(2), 1-13.

<sup>2</sup> Bae, B., & Waastad, J. E. (ed.). (1999). *Erkjennelse og anerkjennelse. Perspektiv på relasjoner*. Oslo: Universitetsforlaget.

<sup>3</sup> Norwegian Directorate for Education and Training. (2017). *Framework plan for kindergartens—Contents and tasks*. Utdannings-direktoratet, available o-line: <https://www.udir.no/in-english/framework-plan-for-kindergartens>.

<sup>4</sup> Simeone, D. (2018). Empathy in the educational relationship. *Consultori Familiari Oggi*, 26, 23-37.

<sup>5</sup> Sand, S. (2020). *Ulikhet og fellesskap. Flerkulturell pedagogikk i barnehagen*. Oslo: Cappelen Damm Akademisk.

<sup>6</sup> Granone, F., & Caravita, S. C. S. (2020). The importance of partnership between teachers and parents in children’s mathematical education. *La Famiglia. Rivista di problemi familiari*, 54/264, 249-257.

<sup>7</sup> Sand, S. (2020). *Ulikhet og fellesskap. Flerkulturell pedagogikk i barnehagen*. Oslo: Cappelen Damm Akademisk.

This example explains how inclusion and participation are considered in a Norwegian context when children with a different cultural background are involved. It is thought that inclusion can be obtained educating the children to the fact that every element that characterizes an individual is important and has value, as well as every expression and opinion deserves to be heard.

Therefore, clearly the relevance of *medvirkning* in the educational activities of kindergarten makes educating children to civic and democratic participation in the society a relevant goal in the Norwegian Kindergarten. This education can be described referring to the words that are specifically written in the National Kindergarten framework and characterize this document: democracy, inclusion, respect for human dignity and nature, freedom of thought, critical thinking, ethical judgement, compassion, forgiveness, equality and solidarity, community, ability to put up resistance and take action in order to effect change (*Norwegian Constitution, Article 104; UNCRC, Article 3, No. 1*).

Among these terms, we would like to focus on two expressions in particular: democracy and critical thinking. This is because educating to democracy necessarily determines the growth of equality and respect, consequently generating a concrete, and not only theoretical, inclusion. Critical thinking, on the other hand, generates the ability to evaluate and make choices, based on the fundamental ethical values that are learnt<sup>8</sup>.

### Democracy: from theory to practice in kindergarten

Democracy is a concept with different definitions: one is related to politics and government, the other to a mode of being in the world, as a form of living together, that is, a Deweyian idea of democracy<sup>9</sup>. In this second interpretation the connection is not so much between this term and politics, but rather between it and education. Keywords related to the Deweyian definition of democracy are “participatory democracy, pragmatism and conflict resolution”<sup>10</sup> and can be related to the Norwegian idea of democracy discussed by Grindheim in 2014<sup>11</sup>. From a democratic perspective, the child is seen as a competent citizen, an expert in his own life, having opinions that need to be listened to, and having the right and competence to participate in the collective decision-making. Democracy can be considered as a community in which everybody has the opportunity to influence decisions that are relevant for their life<sup>12</sup>. This is clearly stated in the Kindergarten Framework<sup>13</sup>:

“The children shall be welcomed as individuals, and the kindergarten shall respect the child’s experiential world. Children’s lives are shaped by their environment, but children also exert influence over their own lives.”

---

<sup>8</sup> Curtler, H. M. (2004). *Ethical argument: Critical thinking in ethics*. New York: Oxford University Press,

<sup>9</sup> Dewey, J. (1998). *The essential Dewey: Pragmatism, education, democracy* (Vol. 1). Bloomington: Indiana University Press

<sup>10</sup> Caspary, W. R. (2018). *Dewey on democracy*. Ithaca: Cornell University Press.

<sup>11</sup> Grindheim, L. T. (2014). ‘I am not angry in the kindergarten! Interruptive anger as democratic participation in Norwegian kindergartens. *Contemporary Issues in Early Childhood*, 15(4), 308-318.

<sup>12</sup> Cohen, C. (1971) *Democracy*. Athens: University of Georgia Press.

<sup>13</sup> Norwegian Directorate for Education and Training (2017). *Framework plan for kindergartens— Contents and tasks*. Utdanningsdirektoratet, available o-line: <https://www.udir.no/in-english/framework-plan-for-kindergartens>.

This because early childhood environment is seen as an ideal space for participatory democratic practice.

It is possible to analyse this Norwegian approach according to the perspective proposed by Moss in 2011<sup>14</sup>. He identifies some values that must be shared among the community of the early childhood institution in order to obtain a democratic practice:

- The respect of diversity. In the Kindergarten Framework it is written that kindergartens shall promote respect for human dignity promoting diversity and mutual respect<sup>15</sup>;
- The comprehension that different answers to questions can be found, and that it is important to respect different points of view. In the Kindergarten Framework it can be found that early-age children are able to discover that different ways of thinking and behaving exist<sup>16</sup>;
- The opening to curiosity, uncertainty and subjectivity – and the responsibility that they require from us. Here again the framework underlines that “Kindergartens shall demonstrate how everyone can learn from each other and promote the children’s curiosity and sense of wonder about similarities and differences.”<sup>17</sup>

This reading of the Kindergarten Framework confirms that in Norway democracy and education are seen as interconnected from an early age of the child. From this document, democracy is readable as a basic value and a core practice in education, and education can be defined as a means to strengthen and sustain democracy.

### Critical thinking: thinking, judging and choosing in kindergarten

In this perspective it is relevant that the competences that are necessary to be an active member of a democratic community start to be educated in the kindergarten. Among these competences there is also the critical thinking. Critical thinking has been described as an essential tool of inquiry and a powerful resource in one's personal and civic life<sup>18</sup>. A critical thinker can be someone who has the characteristics of, for example, being inquisitive, open-minded, flexible and trustable, prudent in making judgment and facing biases, focused in inquiry. Those are dispositions that can be considered the basis of a rational and democratic

---

<sup>14</sup> Moss, P. (2011). *Democracy as first practice in early childhood education and care*. Centre of Excellence for Early Childhood Development, London: University of London, available o-line: <http://www.child-encyclopedia.com/sites/default/files/textes-experts/en/857/democracy-as-first-practice-in-early-childhood-education-and-care.pdf>.

<sup>15</sup> Norwegian Directorate for Education and Training (2017). *Framework plan for kindergartens—Contents and tasks*. Utdannings-direktoratet, available o-line: <https://www.udir.no/in-english/framework-plan-for-kindergartens>.

<sup>16</sup> Norwegian Directorate for Education and Training (2017). *Framework plan for kindergartens—Contents and tasks*. Utdannings-direktoratet, available o-line: <https://www.udir.no/in-english/framework-plan-for-kindergartens>.

<sup>17</sup> Norwegian Directorate for Education and Training (2017). *Framework plan for kindergartens—Contents and tasks* (p. 9). Utdannings-direktoratet, available o-line: <https://www.udir.no/in-english/framework-plan-for-kindergartens>.

<sup>18</sup> Golding, C. (2011). Educating for critical thinking: thought-encouraging questions in a community of inquiry. *Higher Education Research & Development*, 30(3), 357-370.

society<sup>19</sup>. In the section “Sustainable Development” of the Kindergarten Framework the critical thinking is introduced<sup>20</sup>:

“Kindergartens shall foster the children’s ability to think critically, act ethically and show solidarity.”

and it is presented again in the section “Kindergartens shall promote formative development” where it is written<sup>21</sup>:

“Kindergartens shall use interaction, dialogue, play and exploration to help the children develop critical thinking, ethical judgement and an ability to put up resistance and take action in order to effect change.”

Educating the child to be a critical thinker is, hence, one of the core objectives of education in kindergarten in the Norwegian system.

To use critical thinking means that a person shows a judicious scepticism, and, as a consequence, it means that the person doesn’t take a statement as granted, but, instead, considers alternative hypotheses and possibilities<sup>22</sup>. This is a key to avoid established rules, and, indeed, having a critical thinking helps to experiment new possibilities and non-conventional approaches. To learn to use the critical thinking means to learn when to question something, and what type of questions to ask. These children’s abilities are constantly solicited in the teacher’s practice in the Norwegian kindergarten.

Teacher: “...so we can say that zero means nothing”.

Child: “Are you sure?”

Teacher: “Yes, it is a simple way to describe and to understand the meaning of zero”.

Child: “But if zero means nothing, this means that one and ten are equal!”

This example of a real interaction happening in a kindergarten in Norway shows that in a democratic situation the child is solicited to discuss with the teacher about knowledge, thinking critically and asking questions that also help the teacher to reflect about the importance of the explanation’s quality.

---

<sup>19</sup> Weinstein, M. (1991). Critical thinking and education for democracy. *Educational Philosophy and Theory*, 23(2), 9-29.

<sup>20</sup> Norwegian Directorate for Education and Training (2017). *Framework plan for kindergartens—Contents and tasks* (p. 10). Utdannings-direktoratet, available o-line: <https://www.udir.no/in-english/framework-plan-for-kindergartens>.

<sup>21</sup> Norwegian Directorate for Education and Training (2017). *Framework plan for kindergartens—Contents and tasks* (p. 21). Utdannings-direktoratet, available o-line: <https://www.udir.no/in-english/framework-plan-for-kindergartens>.

<sup>22</sup> Jenkins, D. M., & Cutchens, A. B. (2011). Leading critically: A grounded theory of applied critical thinking in leadership studies. *Journal of Leadership Education*, 10(2), 1-21.

## The Reggio Emilia model: a source of inspiration in Norway

An important pedagogical approach, called Reggio Emilia method<sup>23</sup>, also defines democracy and critical thinking as fundamental in the children's educational path. For this reason, and for other motivations that we will name after in the text, this model has been assumed in Norway as a referential approach, even if it was adapted to the specificities of the Norwegian cultural context.

Inspired by John Dewey's theory<sup>24</sup>, after the second World War Loris Malaguzzi developed a new learning approach in kindergarten, named Reggio Emilia method because of the city where it was developed. The main idea of this approach is that children are born with resources, potentials, autonomous capacities for constructing their own thoughts and finding answers. In accordance with this view, the teaching-learning approach should be open to observation, research and experimentation performed by teachers together with children. These experimentations and processes lead to the definition of "The Hundred Languages of Children"<sup>25</sup>. Those are defined as a metaphor for children's potentials and for their knowledge-building and creative processes.

The method developed in Reggio Emilia's kindergartens inspired an increasing number of Nordic and Norwegian kindergartens, among other things because creative learning processes and concrete action with materials, have great place in both this educational approach and the Norwegian culture. The same applies to the goal of upbringing to democracy. Nevertheless, the transfer of experience from Reggio Emilia presents challenges and dilemmas for Norwegian kindergartens. The first challenge is that even if Norwegian kindergartens can be inspired by Reggio Emilia's pedagogy, they must fit in the Norwegian context<sup>26</sup>. This implies for example a different approach to documentation. For Reggio Emilia's teachers the documentation is the only way to communicate to others what is done in the kindergarten and, as a consequence, this process has to be integrated in the day time. Instead, for the Norwegian Reggio Emilia teachers documentation is not as important as the time spent with children<sup>27</sup>.

A second challenge is related to the concept of environment. In the Reggio Emilia approach the environment can be thought as a third teacher. It is identified with the furnishings, objects, places where activities happen, and this means that preparing the environment is conceived as an educational act that generates psychological well-being, a sense of familiarity and belonging, an aesthetic sense and pleasure of living. In Norway this concept has been adapted

---

<sup>23</sup> Paoletta, F. (2013). La pedagogia di Loris Malaguzzi. Per una storia del Reggio Emilia approach. *Rivista sperimentale di freniatria*, 87(1), 95-112.

<sup>24</sup> Dewey, J. (1998). *The essential Dewey: Pragmatism, education, democracy* (Vol. 1). Bloomington: Indiana University Press.

<sup>25</sup> Paoletta, F. (2013). La pedagogia di Loris Malaguzzi. Per una storia del Reggio Emilia approach. *Rivista sperimentale di freniatria*, 87(1), 95-112.

<sup>26</sup> Rinaldi, C. (2006). *In dialogue with Reggio Emilia: Listening, researching and learning*. New York: Routledge.

<sup>27</sup> Carlsen, K. (2015). *Forming i barnehagen i lys av Reggio Emilias atelierkultur*. Available on-line: [https://www.doria.fi/bitstream/handle/10024/103745/carlsen\\_kari.pdf?sequence=2](https://www.doria.fi/bitstream/handle/10024/103745/carlsen_kari.pdf?sequence=2)

mainly to an outdoor environment<sup>28</sup> where children perform free play. This is because outdoor and free play are two important characteristics in the Norwegian culture and represent a fundamental part in the life of preschool children<sup>29</sup>. Therefore, in the Norwegian kindergarten both the indoor and the outdoor environments are taken into consideration and carefully constructed, and natural materials are used for decoration, and are made available for investigation and creativity as well<sup>30</sup>.

After considering these specificities of the Norwegian kindergarten, we will analyse now, more in detail, how democracy and critical thinking elements, both important elements of the Reggio Emilia approach and the Norwegian culture, has been interpreted and realized in practice in the Norwegian kindergartens in Norway inspired by the Reggio Emilia approach.

### Democracy in the Reggio Emilia approach in Norway

Reggio Emilia pedagogical approach is rooted in a deep respect for the child. The educators adopting this method are convinced that all children are born intelligent and with a strong desire in exploring the world. These educators believe in human possibilities, and emphasize solidarity, cooperation and critical thinking as a starting point for a world with deep democratic values. The child is thus seen as an independent and active individual with desires and the ability to interact, learn and care for others<sup>31</sup>. Everyone is important, but more important is that each person can act together with others in constructing a common knowledge and culture. With a democratic community as an ideal, different views are welcomed because encounters between differences contribute to the development of new knowledge. Argumentation becomes a natural path, and the "city square" (piazza) is the place where all the ideas can be shared. Reggio Emilia pedagogical can therefore be linked to a socio-cultural or social constructionist knowledge tradition. This type of interaction produce, as a consequence, a high level of interaction and discussion between children, who try to find a solution that can be accepted by the community<sup>32</sup>.

During a research project conducted in a Norwegian kindergarten inspired by the Reggio Emilia approach<sup>33</sup>, one of the authors assisted to a large number of interactions between children. One of those came at the end of an activity where each group had to design

---

<sup>28</sup> Hagen, T. L. (2015). Hvilken innvirkning har barnehagens fysiske utemiljø på barns lek og de ansattes pedagogiske praksis i uterommet. *Tidsskrift for Nordisk barnehageforskning*, 10. <https://doi.org/10.7577/nbf.1430>

<sup>29</sup> Moser, T., & Martinsen, M. T. (2010). The outdoor environment in Norwegian kindergartens as pedagogical space for toddlers' play, learning and development. *European early childhood education research journal*, 18(4), 457-471.

<sup>30</sup> Wilson, R. (2007). *Nature and Young Children: Encouraging Creative Play and Learning in Natural Environments* (1st ed.). New York: Routledge.

<sup>31</sup> Carlsen, K. (2010). Ringen av forvandlinger: en analyse av prosjektet Teaterteppet i barnehagen Diana i Reggio Emilia. *Tilde*, 13, 7-40.

Paolella, F. (2013). La pedagogia di Loris Malaguzzi. Per una storia del Reggio Emilia approach. *Rivista sperimentale di freniatria*, 87(1), 95-112.

<sup>32</sup> Daniel, M. F., Pettier, J. C., & Auriac-Slusarczyk, E. (2011). The incidence of philosophy on discursive and language competence in four-year-old pupils. *Creative education*, 2(03), 296-304.

<sup>33</sup> Granone, F., & Pollarolo, E. (2019). Evaluation of children's development and expression of geometric thought: a case study. Oral communication at *ICSEI 2019 International Congress for School Effectiveness and Improvement (Norway)*, January 8-12, 2019.



something related to a storytelling, but just one product should be chosen as representative, for being located visible in the classroom.

“Both groups were very pleased with their result, but just one should be chosen. After a good discussion and confrontation, the group 1 finally came to a suggestion: Olav, shaking his head as a sign of indecision told “I’m about to change my mind. Let’s do this: let’s decide for group 2, let’s vote for their design.”

This example shows that, in this kindergarten, children had been educated in showing a sincere interest toward the opinions of others, even if they differ from his own points of view. Children had a good level of conversation, not just with the teacher, but between themselves too, with the aim of finding a common idea. Feeling free to propose ideas even if they are wrong, having good self-esteem, not feeling impeded in living any kind of emotion are important aspects to understand what it means to be part of a democratic society. In the Reggio Emilia approach teachers are encouraged to observe children rather than to direct them; It is important that children can experiment in their own way, make mistakes, and find new solutions. The teacher's role is gently moving children to the areas of their interest, and this can only be done through careful observation carried out over time<sup>34</sup>.

Grindheim in 2014<sup>35</sup> underlines that a real democracy participation implies harmonious and joyful interaction, but also conflicts of interest, contradictory perspectives, and children’s resistance to adjusting to settled conventions. Hence, the role of teachers is to help children to a negotiation of meaning, supporting them in explaining their thought in a comprehensible way, reasoning about a topic and making sense of their ideas<sup>36</sup>. From this point of view the Reggio Emilia method can be integrated very easily in Norway.

### Critical thinking in a Reggio Emilia context in Norway

A connection between democracy and critical thinking has been identified from different authors<sup>3738</sup>. In fact, education to democracy means to promote children’s active participation in the democratic life, and this means promoting in the educational activities shared decision-making, and supporting collaboration and reflection as essential skills for the children’s critical thinking. This description is in accordance with Lipman’s definition of critical thinking:

“skilful, responsible thinking that facilitates good judgment because it 1) relies upon criteria, 2) is self-correcting, and 3) is sensitive to context”<sup>39</sup>.

---

<sup>34</sup> Carlsen, K. (2015). Forming i barnehagen i lys av Reggio Emilias atelierkultur. Available on-line: [https://www.doria.fi/bitstream/handle/10024/103745/carlsen\\_kari.pdf?sequence=2](https://www.doria.fi/bitstream/handle/10024/103745/carlsen_kari.pdf?sequence=2)

<sup>35</sup> Grindheim, L. T. (2014). ‘I am not angry in the kindergarten!’ Interruptive anger as democratic participation in Norwegian kindergartens. *Contemporary Issues in Early Childhood*, 15(4), 308-318.

<sup>36</sup> Daniel, M. F., Pettier, J. C., & Auriac-Slusarczyk, E. (2011). The incidence of philosophy on discursive and language competence in four-year-old pupils. *Creative education*, 2(03), 296-304.

<sup>37</sup> Malaguzzi, L. (1988). Se l’atelier è dentro una lunga storia e ad un progetto educativo. *Bambini*, 12, 26-31.

<sup>38</sup> Quantz, R. A. (2016). *Sociocultural studies in education: Critical thinking for democracy*. New York: Routledge.

<sup>39</sup> Lipman, M. (1988). Critical thinking and the use of criteria. *Inquiry: Critical Thinking across the Disciplines*, 1(2), 2-2.



This means that in order to become part of the society the person needs to be able to think critically, to evaluate, to decide for the good of the community.

However, in a Norwegian context inspired to Reggio Emilia method, an important difference has to be highlighted: the ability to think critically is considered important not just for the good of the community, but as a result of the community itself. Who works in this context really believe that a possible understanding of the reality, the ability of judgment, the thinking skills are a product that can be originated from discussions, comparisons and arguments that take place within the community. During an interview conducted by one of the authors in a Reggio Emilia kindergarten in Norway, a teacher explained plenty that it is important the development of critical thinking in each child, but insisted presenting the source of this development not in the child alone that has to struggle with a problem, but in a community that joins opinion and abilities in order to succeed. An ideal source of inspiration and stimuli described by this teacher is art. This is in accordance with the Reggio Emilia approach, where art is represented by representations that are called "Atelier"<sup>40</sup>. This is an environment that promotes knowledge and creativity, suggests questions and gives rise to suggestions. Both in the formulation of aesthetic experience<sup>41</sup> and in the description of the relationship between imagination and reality<sup>42</sup>, the connecting function of emotion is discussed in the development of thinking. The same applies to people's opportunity to create something new based on the existing. These are key elements in design activities, where materials are transformed into objects that have a meaning.

During a research project conducted outdoor in a Norwegian kindergarten inspired by the Reggio Emilia approach<sup>43</sup>, one of the authors observed a child, Magnus while looking at a butterfly. He looked also to the wings and said: "My butterfly is the result of a transformation, is it still transforming? Can we draw it? Transforming...".

This sentence inspired Magnus' teacher in organizing a study about transformation. It is clear then that the Reggio Emilia approach sets child's interests and inspirations at the center of the teaching activity, using these stimuli as starting point for a learning process. This way of working finds a fertile environment in Norway, where the child is considered a fundamental source of inspiration for teachers who build their teaching on the interests of children<sup>44</sup>.

## Conclusions

According to the law and regulations of Norway, educating children to the "medvirkning" and improving children's competences needed for participating actively to the democratic society

---

<sup>40</sup> Venturi, G. (2019). *Loris Malaguzzi e l'approccio pedagogico reggiano. La nascita e lo sviluppo degli atelier nei servizi educativi per l'infanzia*. M.D. Dissertation, Università degli studi di Modena e Reggio Emilia (Italy).

<sup>41</sup> Dewey, J. (2005). *Art as experience*. New York: The Penguin Group.

<sup>42</sup> Gajdamaschko\*, N. (2005). Vygotsky on imagination: Why an understanding of the imagination is an important issue for schoolteachers. *Teaching Education*, 16(1), 13-22.

<sup>43</sup> Granone, F., & Pollarolo, E. (2019). Evaluation of children's development and expression of geometric thought: a case study. Oral communication at *ICSEI 2019 International Congress for School Effectiveness and Improvement (Norway)*, January 8-12, 2019.

<sup>44</sup> Norwegian Directorate for Education and Training (2017). *Framework plan for kindergartens—Contents and tasks*. Utdanningsdirektoratet, available o-line: <https://www.udir.no/in-english/framework-plan-for-kindergartens>.

and using a critical thinking attitude represent essential elements of the kindergarten activities. In Norwegian kindergarten there is a continuous effort to develop and implement educational opportunities permitting the children to experiment the participation in the community and to grow up as responsible citizens. Norwegian kindergartens are also organized so that children's families are also participating in the decisions and in the educational practices aimed to these goals<sup>45</sup>. This pedagogical approach provides children and their families with the concrete experience of what participating democratically to the society means. Favouring this experience and developing children's critical thinking become, therefore, the core of the Norwegian kindergarten institution.

This approach also drives the research of innovative practices and educational methods to be used in the Norwegian Kindergartens. One of the outcomes of this process has been the adaptation of the Reggio Emilia model to the Nordic contexts and values. This Norwegian model represents an important example among the educational approaches in kindergarten through Europe, with a strong focus given to the play experience of children, to the relationship with the outdoor environment and the careful attention posed on the development of children's critical thinking<sup>46</sup>. This specificity makes the Norwegian kindergarten particularly effective in educating children to the democracy values and to the citizenship, and an important model fruitful to be studied in comparison with other international experiences, like the Italian kindergarten and context, where the Reggio Emilia pedagogical approach was first developed.

---

<sup>45</sup> Granone, F., & Caravita, S. C. S. (2020). The importance of partnership between teachers and parents in children's mathematical education. *La Famiglia. Rivista di problemi familiari*, 54/264, 249-257.

<sup>46</sup> Aasen, W., Grindheim, L. T., & Waters, J. (2009). The outdoor environment as a site for children's participation, meaning-making and democratic learning: examples from Norwegian kindergartens. *Education 3-13*, 37(1), 5-13.