THE REGGIO EMILIA APPROACH IN RESPONDING TO 21ST CENTURY CHALLENGES TO EARLY CHILDHOOD CAPABILITIES

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ABSTRACT

In the 21st century, everyone faces challenges of globalization, including young children. Based on previous research, abilities can be developed through a child-centered approach. The Reggio Emilia Approach is one of those. Reggio Emilia uses project-based learning and open-ended materials to develop 21st-century skills. However, the Reggio Emilia Approach has another component that may also be developed to strengthen those abilities. This study aims to see whether all the Reggio Emilia components can address the challenges and to assess the feasibility of applying this approach in the Indonesian context. This study uses a literature review method, analyzing 2 primary sources on the Reggio Emilia Approach, 1 primary source on Education according to Ki Hajar Dewantara, and 62 articles, including primary and secondary sources, on the Reggio Emilia Approach and 21st-century skills.

Keywords: *reggio emilia; 21st century skills; early childhood education*

INTRODUCTION

Previous researchers have stated that, in the future, every individual must possess twenty-first-century skills to survive. In early childhood, these twenty-first-century skills are creativity, collaboration, critical thinking, and communication (Johnson, L., & Kress, 2019; Rayadin et al., 2016; Scholar (7), n.d.). Twenty-first-century skills enable children to apply what they have learned in school to their future lives in a highly competitive society (Jiang, S. Z., Lu, W., Zong, X. F., Ruan, H. Y., & Liu, 2016). In reality, the expectation that children will be able to survive in the twenty-first century is placed on education (schools) as the party held responsible. This raises the question of what kind of learning model can ensure the development of these twenty-first-century skills. The next question is: at what age can children begin to be equipped with twenty-first-century skills? Are young children already ready to be equipped with twenty-first-century skills? Several studies indicate that there is no need for doubt, as twenty-first-century skills can be introduced as early as early childhood (Bruns et al., 1974; Plastic Europe, 2020; Scholar (7), n.d.).

There are two learning approach models implemented in schools: the teacher-centred approach and the child-centred approach (Oscier, Bosley, & Milner, 2008). In a teacher-centred approach, learning activities are predominantly directed by the teacher, with a strong emphasis on academic instruction and a non-constructivist philosophical orientation (Nguyen, Leder, & Schruefer, 2021). Within this model, the teacher plays a pivotal role as the primary source of knowledge and as the benchmark for instructional standards, moral norms, and regulatory expectations that children are expected to follow.

The philosophy underlying this educational model positions the teacher as the primary source of knowledge and the students as mere recipients of that knowledge (Soleimani, 2020). This model of education shapes a passive learning environment, because students become habituated to listening rather than speaking and to receiving knowledge rather than sharing it (Opdal, 2022). As a result, the atmosphere of this learning model tends to make students passive learners, unmotivated to be active, lacking initiative, imagination, creativity, critical thinking, sharp analytical skills, a habit of collaboration, and the courage to express their opinions.

However, these very characteristics are the qualities that education in the twenty-first century aspires to develop.

Child-centred education, in contrast, is grounded in constructivist and interactive principles, with play-based learning at its core (Amani & Fussy, 2025). This approach closely attends to children's needs and developmental stages and is regarded as effective, high-quality education because it contributes to children's mental health, places children's views in an important position, and emphasises sensitive responses to children's words and actions.

Within this model, children are treated more humanely, viewed as whole persons with potential equal to that of adults, and whose opinions are listened to and valued (McCafferty, 2024). This preferred approach, as opposed to the teacher-centred model, was pioneered by figures such as Froebel, Rousseau, Montessori, Piaget, Vygotsky, Gardner, Dewey, and Bruner. Ki Hajar Dewantara, an influential Indonesian educator inspired by Froebel and Montessori, also introduced the concept of "Tut Wuri Handayani," which means granting children the greatest possible freedom, provided there is no threat to their safety (Sani, Mahmudah, & Muhammad, 2022).

Child-centred education had already emerged in Europe around 1900. In Europe, several child-centred methods and approaches emerged, including the Montessori, Waldorf, and Reggio Emilia Approaches, which later spread widely across many countries. Reggio Emilia is a small town in Italy, and this approach was subsequently named after the town. The Reggio Emilia Approach arose from parents' longing to educate their children in the aftermath of the Second World War.

This approach was led by a teacher and psychologist named Loris Malaguzzi, who developed a philosophy and distinctive features that set it apart from other methods. The Reggio Emilia Approach has strong potential to foster the kinds of competencies expected in the twenty-first century. One of its well-known slogans is "The Hundred Languages of Children," which conveys the idea that children are born with many, if not hundreds, of ways to communicate their inner thoughts and feelings. In the learning process, this approach also employs project-based learning, which can develop critical thinking, collaboration, and communication skills with both teachers and peers (Mugabekazi, Mukanziza, Nizeyimana, & Manirahari, 2025; Williamson, 2024). Learning materials and media in the Reggio Emilia Approach use open-ended or loose parts materials. These materials can foster communication and interaction, support collaboration and cooperation, and promote social skills by encouraging creativity and innovation (Selfa-Sastre, Pifarré, Cujba, Cutillas, & Falguera, 2022).

Based on the above explanation, the Reggio Emilia Approach has strengths, appeal, and distinctiveness in its application that can help children acquire twenty-first-century competencies. Therefore, this study adopts a literature review to identify the learning components within the Reggio Emilia Approach. It also examines whether these learning components can address the four challenges of twenty-first-century skills for young children in the context of Indonesian education.

METHODOLOGY

The study used a literature review method. A literature review has the advantage that it is not a position paper, in the sense that the researcher does not simply select data that support his or her own viewpoint. (Efron, S. E. . Ravid., 2019), but this also does not mean presenting all data in the field descriptively. According to Boote and Beile, as cited in Efron and Ravid (Efron, S. E. . Ravid., 2019)A literature review should offer a fresh and creative perspective that contributes to thinking and deepens understanding of the topic under investigation.

In this type of literature review, the primary instrument is the researcher (Efron, S. E., Ravid. To serve as a reliable instrument, the researcher must exercise great care and

thoroughness in selecting data sources. A single data source may contain many research articles, so to assist the researcher in selecting appropriate articles and analysing data in a way that avoids bias, a supporting tool in the form of a selection table is needed. The researcher may also delimit the search by using a saturation point or repeated information as a criterion. (Efron, S. E., & Ravid, 2019).

The procedures for data collection, recording, and analysis in this study follow the guidelines proposed by Efron and Ravid. The data sources consist of books and previously published research articles, ensuring that the information used is accountable and trustworthy. After the data are collected, they are analysed, reduced, presented, and then verified using tables and diagram-
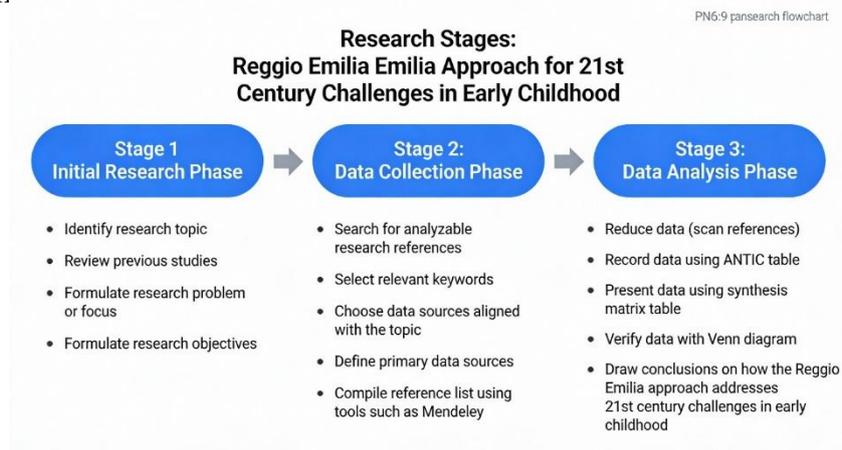

Figure 1. Research stages

RESULT AND DISCUSSION

Result

The findings of this study were obtained through a literature-based analysis of two primary-source books on the Reggio Emilia Approach, one primary-source book on Ki Hajar Dewantara's educational philosophy, and 62 research articles consisting of both primary and secondary data sources. These sources were accessed through both electronic and physical libraries. The electronic libraries consulted included ERIC, Google Scholar, and Z-library, and Boolean operators were used to broaden or narrow the search.

The research articles used in this study were generally limited to publications from the last ten years. However, two articles published in 2000, 2001, and 2003, as well as a book published in 2008, were also analysed because they constitute primary data. After the data were collected and reduced, the next steps involved recording the information using an ANTIC table, presenting it in a Synthesis Matrix table, and then verifying it with a Venn Diagram.
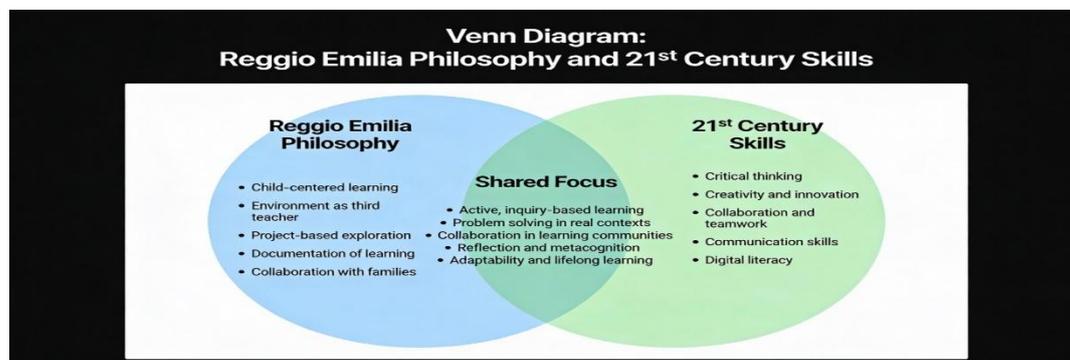

Figure 2. Vann *Diagram: "The Reggio Emilia Philosophy with 21st Century Skills."*

Reggio Emilia philosophy addresses 21st-century competencies.

The figure shows that the philosophy of the Reggio Emilia Approach intersects with the theoretical foundations of the four competencies expected of children in the twenty-first century. The approach is child-oriented, views the child as an active agent, positions the school as a provider of democratic "citizenship" for children, embraces a socio-constructivist view of learning, emphasises reflection on experience rather than mere information exchange, focuses on process, and provides a supportive environment. These elements enable children to analyse, investigate, reflect on their experiences, and engage in discussion, so they can think in complex ways and solve problems based on evidence, which are key components of critical thinking.

The Reggio Emilia Approach incorporates play as a central vehicle for learning. Theoretically, creativity can be fostered through play. Within this approach, although children are regarded as competent, they still require support from the environment—materials, teachers, and peers—in constructing knowledge. This concept illustrates that the philosophy of the Reggio Emilia Approach aligns with the notion of collaboration, namely mutual engagement, mutual assistance, and mutual understanding in pursuit of shared goals.

Another philosophical principle of the Reggio Emilia Approach is that children first learn socialisation before cognitive skills. In relating to other children, they help one another and develop mutual understanding, which corresponds to the concept of collaboration. This approach treats children democratically; they are free to speak and are listened to. Such practice is consistent with communication theory, which holds that communication involves processes of listening, reflection, sensory engagement, child-friendliness, and age appropriateness. The approach is also grounded in a socio-constructivist philosophy of learning that inherently involves c
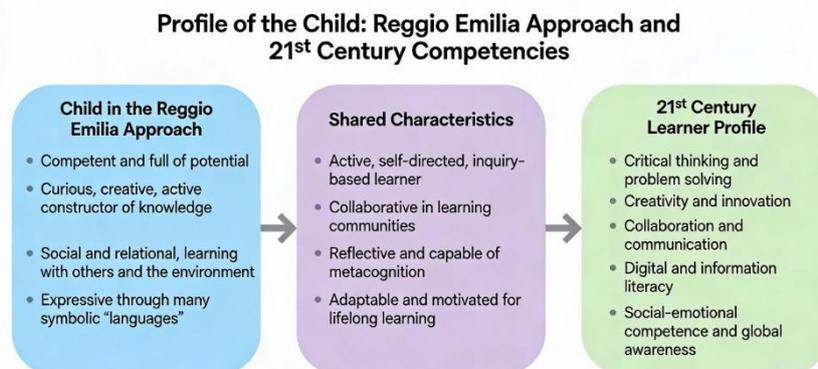

Figure 3. "Portrayal of children of the Reggio Emilia Approach with 21st-century skills"

Children's Competencies in Reggio Emilia

The Reggio Emilia Approach views children as individuals who must be respected; they are not empty vessels but possess inherent potential, have a "hundred languages," act as architects of their own learning, and have the right to be creative, to form relationships, and to be listened to. Children are capable of complex thinking, formulating hypotheses, evaluating from different perspectives, and drawing conclusions. With such principles, children are granted freedom, which in turn supports the development of their critical thinking skills.

Based on the diagram in Figure 3, this positive image of the child—as capable, full of potential, and endowed with a hundred languages—is a key pathway to creativity. Furthermore, the Reggio Emilia Approach recognises that children hold many rights, one of which is the right to be creative. Children are seen as individuals who construct knowledge through interaction

with their environment, and this concept reflects how the philosophy of the Reggio Emilia Approach aligns with the notion of collaboration.

From the perspective of communication theory, respecting children as persons means listening to them. This is a highly salient feature of the Reggio Emilia Approach: children deserve to be heard because they are born with a hundred languages that need to be expressed and listened to. The Reggio Emilia Approach also regards children as communicators who can communicate through multiple media (drawing, writing, play, dance, speech, symbols, and so on). Children are greatly valued because each child is regarded as a fully-fledged "citizen."
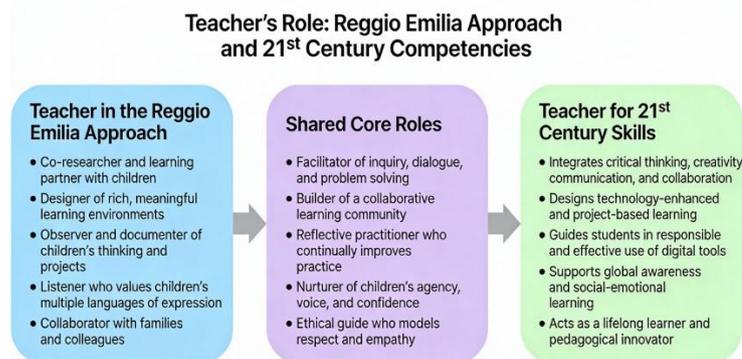

Figure 4. "The Role of Teachers According to the Reggio Emilia Approach with 21st Century Skills

The Role of Teachers According to the Reggio Emilia Approach with 21st Century Skills

In the Reggio Emilia Approach, as illustrated in Figure 4, the teacher supports children in becoming representatives of their community, remains sensitive to opportunities, and provides an environment rich in invitations, provocations, and materials, as well as scaffolding that enables children to become independent learners. The teacher is open to discussion and helps children build relationships with the situations around them, enabling them to reflect on their environment in relation to themselves. Building relationships, understanding the environment, and exploring objects in greater depth constitute one pathway toward critical thinking.

The teacher is positioned as a researcher who does not simply feed children information but listens to them and supports their interests. When children encounter problems, teachers in the Reggio Emilia Approach do not immediately provide answers; instead, they pose further questions that guide children to think more critically and to discover answers on their own. This aligns with the concept of critical thinking, namely, learning through reflected experience that renders learning meaningful.

Loris Malaguzzi stated that teachers in Reggio Emilia need to teach "nothing" beyond what the child learns from within, adopting the stance of facilitator, researcher, and provider of scaffolding so that children can become autonomous learners. Teachers also give children opportunities for free play, which is crucial because such wide-ranging play allows them to generate new, non-monotonous ideas—one of the hallmarks of creativity.

Teachers are regarded as partners and collaborators whose roles include listening to children, arranging the environment (provocations and invitations), and providing scaffolding to co-construct knowledge. Teachers often collaborate with experts such as neuroscientists, linguists, psychologists, and medical professionals to better understand children's conditions and ensure they are properly supported. They adopt a stance of negotiation and flexibility in

project work, following children's pace in understanding the learning content, avoiding imposing rigid deadlines, and refraining from acting as authoritarian figures or merely transmitting information. Instead, they stand alongside children as co-constructors of knowledge.

In this approach, the teacher plays a highly significant role in communicating with children. Positioned between the community and the child, the teacher serves as an advocate who must give voice to children's perspectives in society. Likewise, within the school, the teacher represents the community in educating children. Both roles are sustained by communication, with the teacher modelling effective communication.
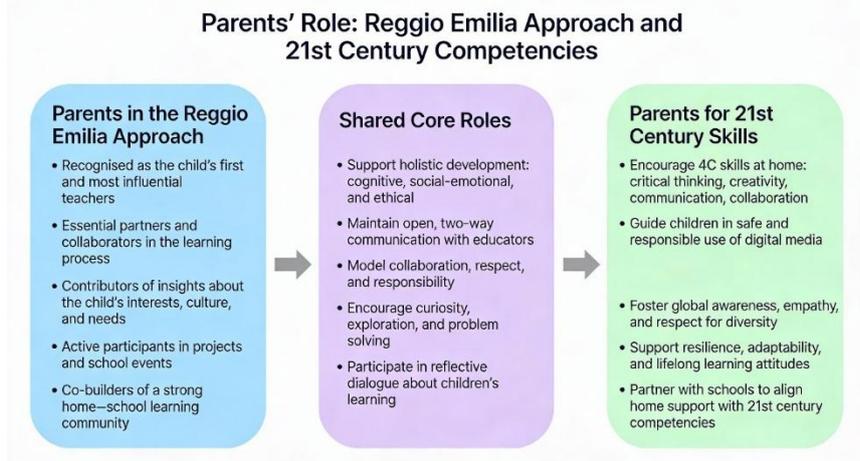

Figure 5. The role of parents according to the Reggio Emilia Approach with 21st-century skills

The Role of Parents According to the Reggio Emilia Approach

In Figure 5, the role of parents is shown to be no less important in developing twenty-first-century skills, as parents are partners who grow alongside their children. Parents also act as partners to teachers by providing the environment and materials, and by serving as volunteers and resources in the processes of investigation, discussion, and hypothesis building. These parental roles serve as a window through which children can develop critical thinking, because if parents do not support what happens at school, it will be difficult for their critical thinking to develop. In the Reggio Emilia Approach, parents function as colleagues to both teachers and children in the learning process. They are positioned as partners for exchanging ideas and comparing perspectives, growing together with their children, and supporting them by providing materials. This is important for developing children's creativity because one way to foster it is to provide materials and opportunities for exploration.

Parental involvement in this approach is oriented toward children's communal, rather than individual, learning. In this context, parents do not demand that schools and teachers fulfil their personal expectations; instead, they collaborate with schools to support children's education. Communication is well established with teachers, with children, and with other parents. Parents act as colleagues in learning and as a community that grows together with other parents as they raise children. Figure 6, the Venn diagram "Relationships in the Reggio Emilia Approach and Twenty-First Century Skills," illustrates that relationships can address the challenges of twenty-first-century competencies. Relationships are highly promising for developing critical thinking skills because they involve understanding materials, peers, the environment, and ongoing situations. This understanding enables children to think critically, including the ability to comprehend, reflect, discriminate, construct hypotheses, make judgments, and solve problems. A relationship is understood as a connection in which children

interact with materials, peers, teachers, and the environment in order to achieve a particular goal.

Relational engagement requires time to understand materials, other people, and the situations that arise. Creativity can emerge when a person has developed an understanding of an object, a situation, and the solutions employed; with this understanding, the person can think of something different from what has been done before. This is the role of relationships in developing creative abilities. Relationships are essential in the learning process within the Reggio Emilia Approach; without relationships—with materials, teachers, or peers—learning would never take place. In these relational processes, children need to develop an understanding of both the materials and the individuals with whom they collaborate.
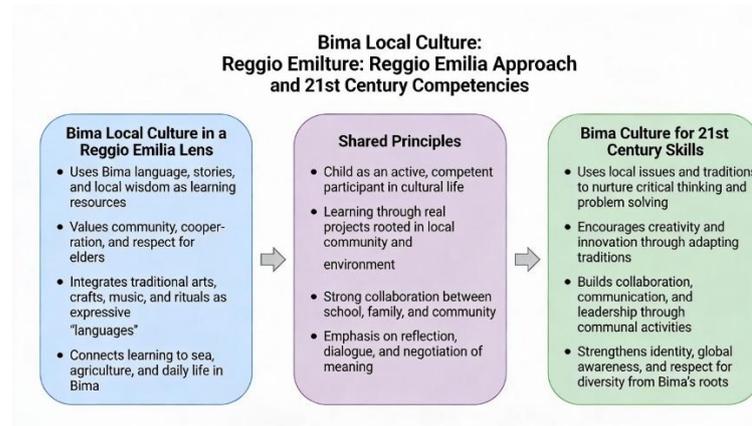

Figure 6. "Local Culture in Bima according to the Reggio Emilia Approach with 21st Century Skills"

Local Culture in Bima according to the Reggio Emilia Approach with 21st Century Skills

Local Bimanese culture has great potential as a "living curriculum" that aligns with the philosophy of Reggio Emilia. In the Reggio approach, children are viewed as competent, full of potential, and learning through their relationships with their socio-cultural environment. Bima offers a rich context through local language, folktales, religious traditions, and cooperative practices, all of which can serve as sources for project exploration. When teachers draw on these cultural elements, children not only come to know the roots of their identity but also take an active role as subjects, interpreting and developing meaning from their local experiences.

From the Reggio Emilia perspective, Bimanese culture can appear as the "hundred languages" of children: through traditional arts (dance, music, crafts), customary rituals, traditional games, and local symbols. Children can draw, sculpt, tell stories, role-play, or create constructions inspired by the sea, mountains, gardens, and social life of Bima. Each of these expressions becomes a living documentation of how children interpret their culture. Teachers and parents listen to, document, and reflect on children's work so that culture is not merely taught but brought to life through children's creative processes.

Local Bimanese culture, within the framework of twenty-first-century competencies, can serve as a concrete vehicle for developing critical thinking, creativity, collaboration, and communication skills. For example, children can be invited to investigate changes in coastal environments, agricultural traditions, or community habits, then engage in discussion, solve simple problems, and design age-appropriate creative solutions. Culture-based projects, such as creating a mini exhibition on the lives of fishers or organising a small festival of folktales, help

develop children's teamwork, presentation skills, and creativity. In this way, local roots become a starting point for building global competencies.

To be fully aligned with Reggio Emilia and twenty-first-century demands, Bimanese culture needs to be integrated through close collaboration among schools, families, and the community. Parents and community leaders can participate as resource persons, project mentors, or reflection partners, helping children see that learning occurs across home, school, and their social environment. Teachers act as designers of environments rich in cultural stimuli and as facilitators of dialogue and reflection. In the end, children grow into individuals with a strong local identity who are also adaptive, creative, and prepared to face changing times, because they are accustomed to transforming cultural values into a lifelong source of learning.
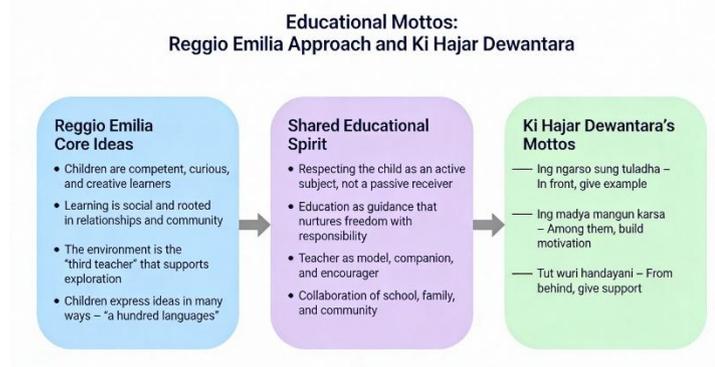

Figure 7. The motto of the Reggio Emilia Approach is the same as the motto of Ki Hajar Dewantara

The motto of the Reggio Emilia Approach is the same as the motto of Ki Hajar Dewantara.

Figure 7 shows that the concept of environment in the Reggio Emilia Approach is similar to Ki Hajar Dewantara's views. Both, however, also differ, such as the use of art in Reggio Emilia as a medium for children to communicate and express their "hundred languages." In contrast, Ki Hajar Dewantara employs art for national education, namely to teach national identity. Art is also used to promote balance and to develop both ethics and aesthetics (tata krama). In this respect, Ki Hajar Dewantara was inspired by Rudolf Steiner.

Loris Malaguzzi, in conceptualising the Reggio Emilia Approach, was strongly influenced by John Dewey, Piaget, Vygotsky, and Bruner in their views on how children construct knowledge, and was inspired by Montessori's emphasis on children's freedom in learning. Ki Hajar Dewantara, in developing his approach to children's education, was inspired by Montessori's emphasis on children's independence and sensory exploration, and by Froebel's emphasis on play. Ki Hajar stated that a child's natural disposition is to play all day and that children learn through play. Ki Hajar Dewantara was an educator with firm convictions; although influenced by these two major educational figures, he argued that while Montessori's education grants freedom and sharpens the senses, its activities place greater emphasis on experimentation and seem to lack sufficient play.

Froebel, by contrast, incorporated elements of play into his activities. Ki Hajar Dewantara argued that Indonesia already possesses traditional games that simultaneously refine the senses, provide enjoyment, and develop skills, such as dakon and cublak-cublak suweng, which sharpen sensory perception, support play, and foster mathematical skills and estimation. Therefore, there is no need to adopt foreign educational methods wholesale; rather, they should be adapted to the local context and culture. According to Ki Hajar Dewantara, this is what truly liberates children: understanding their own nature and having a clear sense of identity as

Indonesians. In this way, the concept of freedom differs among Ki Hajar Dewantara, Montessori, and Loris Malaguzzi. For Ki Hajar Dewantara, freedom is grounded in nationalism; in Montessori's concept, it refers to freedom in learning; and in Loris Malaguzzi's view, it is the right to be recognised as a citizen.

Ki Hajar Dewantara was also inspired by Rudolf Steiner's anthroposophical education, now known as Waldorf Education, which introduced Eurythmy. Eurythmy is an educational concept of ethics and aesthetics that helps to cultivate moral character. Ki Hajar Dewantara agreed with Steiner, stating that Indonesian cultural forms such as dance, pencak silat, and physical education should be taught to children because of their many benefits. The arts and physical activities in Indonesian culture not only yield physical benefits such as health and agility but also sharpen the senses, including accuracy, acuity, and alertness of vision, while providing ethical benefits such as steadfastness and orderliness, and aesthetic benefits in the refinement of behaviour. Ki Hajar Dewantara regarded these activities as containing ethical and aesthetic education that can refine moral character, which he referred to as moving "from Nature toward Civility."

Although there are evident similarities between the Reggio Emilia Approach and Ki Hajar Dewantara's educational philosophy—such as the idea that the curriculum must be adapted to the place where children live, cannot be separated from their community, and should habituate learners to seek knowledge independently and use it for the common good—the primary focus of their curricula is quite different. The Reggio Emilia curriculum centres on democratic practices, through which children can express their potential and voice their "hundred languages." It also emphasises the cognitive domain through long-term projects, a focus on process, positioning the child as a researcher, and stimulating curiosity. In contrast, the curriculum in Ki Hajar Dewantara's education emphasizes character development and the cultivation of nationalism.

CONCLUSION

The Reggio Emilia approach, with its eight components, can address the four challenges of twenty-first-century skills. Differences and similarities between the Reggio Emilia Approach and Ki Hajar Dewantara's educational philosophy, as well as differences in ethnoparental theories between Italy and Indonesia, will naturally present specific challenges when applying the Reggio Emilia Approach in Indonesia. However, this does not mean that the Reggio Emilia Approach cannot be implemented in Indonesia, in line with Ki Hajar Dewantara's view that education must continuously evolve with the times and Reggio Emilia educators' emphasis that being "inspired" means adapting the approach to local wisdom.

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